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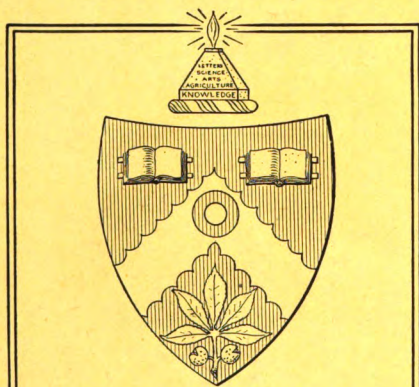
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VOL. XXV.

Original and Translated Papers.

**ARTICLE I.—Primary and Secondary Symptoms of
Drugs as Guides in the Selection of
Remedies in Practice.**

BY CONRAD WESSELHCEFT, M.D., BOSTON, MASS.

IN proceeding to consider the problem of the therapeutic value of primary and secondary symptoms, I shall first refer to the views of older authors on the subject. Secondly, it will be necessary to answer the question as to what is actually meant by primary and secondary symptoms, to illustrate the subject by several experiments, and to compare the results with the arrangement of symptoms in our usual materia medica. After having determined whether a division of symptoms into primary and secondary is possible, and, having defined and classified toxicological phenomena, I shall endeavor to point out what portion of the pathogenetic drug-effect may serve to guide us in the selection of remedies.

HAHNEMANN ON PRIMARY AND SECONDARY SYMPTOMS.

According to Hahnemann, itch contagion is the *primary* disease; the development of psora is *secondary*. In the same place he reminds the reader that, among the enumerated psora symptoms, a great many *opposite* symptoms occur, of which one kind is more rare than another, but offering no impediment to cure

(*Chron. Dis.*, I, 67, 121, etc.). In explaining the objectionable effect of palliative (antipathic) remedies, Hahnemann says (§ 63, *Org.*): "Every medicine has more or less effect upon the vital force, changing the state of health for a time; this change is called *primary* effect. Although a product of medicine and vital force, it belongs properly to the medicine, for the vital force endeavors to oppose this effect; and this reaction belongs to our vital force, and is an automatic action, *after-effect*, or reaction" (*Org.*, § 63).

"During this *primary* effect our vital force is receptive or passive, allowing itself to be affected; but then it recovers, and reacts by producing the exact opposite condition, quite in proportion to the strength of the primary effect; or, when an opposite effect is impossible, nature endeavors to neutralize the primary effect by returning to its normal condition; this is the *after-effect*, or curative effect" (*Org.*, §§ 64, 112, 115).

Hahnemann then gives the following examples: A hand bathed in hot water is at first much warmer than the other unbathed hand (primary); but removed from the hot water, it becomes colder than the other hand. The exact opposite condition obtains when cold water is used. After strong coffee, there follows primary wakefulness and secondary lassitude. Opium produces primary soporific sleep, followed by secondary sleeplessness. Opium also produces primary constipation and secondary diarrhœa, etc. (*Org.*, § 65).

Small (homœopathic) doses produce, on close observation, a primary effect; but the reaction or secondary effect is only equal to re-establishment of the former state (§ 66).

In these paragraphs, and also §§ 112 and 114, Hahnemann indicates that small doses alone produce primary effects; the *secondary* being very slight or imperceptible. Only narcotics differ (§ 113), as they are followed secondarily by greater *sensitiveness*.

With the exception of narcotics, medicines tried in *moderate* doses upon the healthy produce only primary symptoms (*Org.*, § 114). Not a few of these primary symptoms, though the opposite of some which are produced first as well as last, are nevertheless not properly to be called *secondary* or *after-effects*; but they are only to be regarded as the alternation of the various primary effects. They are called *alternating effects* (*Org.*, § 115). (Hahne-

mann mentions Ignatia, Bryonia, Rhus, and Bell., as those capable of producing alternating effects (§ 251). Rau, Gerstel, Schrön and Attomyr agree with Hahnemann.

DR. C. HERING ON PRIMARY AND SECONDARY SYMPTOMS.

In his Glonoin proving, Dr. Hering made the experiment of getting persons to excite the heart's action by running, and then counting the pulse to see how much time was required to allow the pulse to return to its normal condition; then to excite the pulse again by running, and immediately after to take a small dose of glonoin ($\frac{1}{1000}$ drop), which reduced the pulse much quicker than it would have returned to its normal condition without the Glonoin. "I know no experiment," says Dr. Hering, "showing in a more striking manner the reactive effect of the organism, by which Hahnemann endeavored to explain why similars cured. In my opinion a cure is alone possible by opposite direction of the 'alike,' as wave-motion is quieted by like waves in opposite direction, or by the interference of light when undulations of light are neutralized by meeting like undulations. Many provers had a falling of the pulse below the normal standard following an increase of pulse. This furnishes a good illustration of that wave-like drug-effect that Hahnemann wished to have distinguished as *primary* and *secondary effect* (or after-effect); and which he considered exceptionally only as *alternating effect* (Wechselwirkung); but which, according to my opinion, now generally adopted, is to be considered as simple drug-effect from first to last, be its action short or protracted, because all the so-called *antagonistic action* (reaction) of the organism is *unfounded*" (*Amerikanische Arzneiprüfungen*, p. 26). Also, *Archiv*, vol. 15, No. 1. The latter view was afterwards supported by Piper, Kelbig, Waltzke, Kurz, Trinks and Hirschel (*Grundriss, d. Homœop.*, p. 175). The latter says: "As in pathology we often forget the process of disease in considering its division into stages, in like manner the picture (sum-total) of drug-disease is diminished by artificial divisions into periods of action. The entire course of the history of its development is the chief point."

GRAUVOGL ON PRIMARY AND SECONDARY SYMPTOMS.

Grauvogl refers to the subject of primary and secondary symptoms very frequently throughout his book. It would occupy too much space to quote at length his argument for or against it. Before speaking of primary and secondary action proper, Grauvogl defines his views on alternating action as differing from those of Hahnemann, who meant by alternative effect merely the opposite effects produced alternately by one remedy. Grauvogl means by alternating effect the simultaneous action of masses and forces, which is a *reciprocal effect*. Medicine and organism, for instance, are not to be regarded as related by cause and effect, *but each affects the other* (I, 15). This reciprocal action is defined by Grauvogl as *mediate* and as *immediate*; it is different in the *inanimate* mechanism from that of the *animate* organism. The reciprocal action of the machine in having its force supplied is *mediate*; that of the body is *immediate* action through and by itself, etc. (I, 10, 11). The cell is in reciprocal action and relation with its surroundings, *e. g.*, by endosmosis and exosmosis. This reciprocal action is, therefore, determined by the general form and structure of the cell (I, 17). Like the cell, in a limited sense, the body as a whole is in reciprocal action and connection with the outer world (I, 69). According to Grauvogl, the old or physiological school recognizes only cause and effect, to which Grauvogl opposes his reciprocal effect, as shown in I, 56, and in many other places. In chemistry, as well as in organic functions, this reciprocal action, based not only on mutual attraction but also on repulsion, is governed by the law of *proportional oscillation*; 1st, within the *stationary* mass of matter and forces constituting the essential being of an organism; 2d, by the changeable form of matter and force owing to pathological causes. As there is no standard quantity by which the form of reciprocal action of matter in the outer world with the organism can be determined, these quantities must be proven from a medium dose up to its maximum of intoxication, and also down to its minimum.

In regard to primary and secondary action proper, Grauvogl says (I, 151): "As long as there is a morbid part of the body (that is, modified nutrition and function), we see various influences

followed by various actions often only according to the law of proportional oscillation. The ignorance of these laws caused this action to be generalized under the terms primary and after-effect; the former meaning that which was produced or caused, and the latter what the organism produced in its reaction or rebound. A further error was, that the after-effect was always in a general sense considered as the *counterpart* of the primary effect, an error that was enhanced by the division of phenomena into *chemical* and *dynamic* effects" . . . (I, 152).

At the same time, the after-effect was considered as a sort of intermediate stage, ushering in recovery, as after alcohol followed excitement, then depression, then the normal state. Or, as after Cinchona follows swelling of spleen as primary effect, and diminution of spleen as secondary effect.

"It is not difficult to prove," Grauvogl continues, "that the question of primary and secondary action hinges upon the dose, but not upon chemical or dynamic action. At the outset we have to decide whether we accept the large dose of the physiological, or the small dose of the homœopathic school, as both produce primary or secondary effects. Sulphur, in large doses of the old school, produces, *e. g.*, first diarrhœa, according to the law of causation, as a *local effect* upon the intestines. It does not always produce diarrhœa in homœopathic dose, because the local effect is not produced; but diarrhœa may, nevertheless, be produced by the constitutional effect of the small dose, irritating by the production of bile. Hence, the larger dose produces diarrhœa without bile, while the small dose does not. Nevertheless, the *after-effect* is in both cases the same, *viz.*, constipation; but this is no longer the effect of sulphur either in large or small dose, but merely the result of proportional oscillation of organic action. . . . Here, then, a direct distinction is impossible between primary and secondary action, as a train of actions was caused in which each symptom was the cause of the succeeding one; for instance, in one person cough is the first to result, while in another palpitation, in a third hæmorrhoidal hæmorrhage, was the first to be observed.

"The cure of such disease by means of Sulphur is not in consequence of the reaction, according to the law of proportional

oscillation, as the coldness of a hand in cold water is followed by warmth; but it is the result of reciprocal effect propagated from point to point in the organism, from which the dose of Sulphur may, long ago, have been removed. These, therefore, are no *after-effects* (secondary), but a series of effects, which again become causes of other effects" (I, 154). This is further illustrated by the effects of Belladonna and their relief by means of coffee (I, 155-6).

Grauvogl also declares that the cause of the discussion in regard to primary and secondary, is the difference in the interpretation of the word "*opposite*" and in its incorrect application. The "opposite" may be of three kinds: One of *quantity*, in the action of two bodies upon each other; one of *quality*, in regard to the degree of action and counteraction of every substance; and one of *relation*, when the dissimilar effects of a substance are compared (I, 157). These brief extracts will suffice to direct the reader to a proper source of information.

DR. W. SORGE ON PRIMARY AND SECONDARY SYMPTOMS.

Speaking of the effects of Phosphorus, Sorge says: "Hahnemann probably considered as primary effect only the increased vigor and comfort that is frequently felt in the beginning of the effect of Phosphorus upon the healthy body; hence he seems to have accepted, *cum grano salis*, the opinion of his allopathic colleagues, declaring Phosphorus to be a great excitant. While the allopaths used Phosphorus in great weakness, Hahnemann had to do the contrary, according to *similia similibus curantur*. His ablest followers have decided against the division into primary and secondary symptoms, and homœopaths generally declare that the effect of a drug upon a healthy organism is to be considered as a whole." Sorge coincides with this view, and finds Phosphorus to be indicated in great depression, lassitude, and complete paralysis. (*Der Phosphor ein grosses Heilmittel*, pp. 224-5.)

THE EFFECTS OF NITROGLYCERIN (GLONIN) UPON THE PULSE.

The following result, arranged in tabular form, was obtained

by getting a number of persons to excite their pulse to its highest degree by violent running, immediately after which several provers took a drop of Glonoin, and the rest observed their pulse without it.

TABLE I.

No.	Name.	Normal pulse.	Pulse after run.		Pulse in 5 min.	Difference.	Pulse in 10 min.	Pulse in 15 min.	
1	Mr. Chase.	80	110	♂	100	10	100	104	+
2	Mr. Cavalgian.	66	125	♂	106	19	92	88	
3	Mr. Morse.	68	140	Glon.	100	40	100	88	
4	Mr. Faxon.	76	142	"	88	56	88	96	+
5	Mr. Swan.	73	176	"	120	56	104	116	+
6	Mr. Spears.	80	116	"	102	14	110	100	

The Glonoin used was the dilute nitroglycerin of commerce in proportion of 1 to 80; each of the four last provers took one drop of that dilution ($\frac{1}{80}$ th of a drop).

The next table exhibits the effects of Glonoin on the pulse of eight provers, without preceding exercise.

TABLE II.

No.	Name.	Normal pulse.	Drops of glonoin.	Pulse in 5 minutes.	Depressed or raised.	Pulse in 10 min.	Depressed or raised.
1	Miss H—d.	88	gtt. 1	86	—	84	—
2	Mrs. M—s.	72	" 1	72	=	76	+
3	Miss De W—e.	76	" 1	80	+	84	+
4	Mrs. W—c.	80	" 1	88	+	96	+
5	Miss D—y.	80	" 1	76	—	88	+
6	Mr. Mc—d.	60	" 1	58	—	60	—
7	Mr. K—y.	60	" 2	52	—	80	+
8	Mr. O—d.	88	" 2	80	—	84	+

The next table exhibits the effects of Glonoin on the pulse in a proving on another principle from that of Table I, as will be seen by the statement at the head of each column.

TABLE III.

No.	Name.	Normal pulse.	Pulse after run.	Pulse 8 min. after run.	Glonoin was taken immediately after running.	Pulse 8 min. after 2d run.	Diff-erence between column 5 and 8.
1	Mr. K—y.	64	126	100			92	— 8
2	Mr. C—n.	68	120	100		104	+ 4
3	Mr. Mc—d.	52	156	96		90	— 6
4	Mr. C—e.	80	168	102		112	+ 10
5	Mr. S—u.	76	164	120		112	— 8
No. of column. } 1	2	3	4	5	6	7	8

[Column 8 shows, in three instances, the homœopathic effect of Glonoin.]

TABLE IV.

Series I.							Series II.								
Number.	Name.	Normal pulse.	Pulse after run.	Pulse 1 min. after run.	Pulse 3 min. after run.	Pulse 4 min. after run.	Pulse 10 min. after run.	Second run; glonoin taken immediately after.							
								Pulse 1 min. after 2d run.	Pulse 3 min. after 2d run.	Pulse 4 min. after 2d run.	Pulse 5 min. after 2d run.	Pulse 6 min. after 2d run.	Pulse 8 min. after 2d run.	Pulse 10 min. after 2d run.	+ Undulations + Gradual decline.
1	Mr. C—e.	90	144	120	96	96	96	132	114	114	108	102	108	104	+
2	Mr. Mc—d.	60	152	88	80	80	76	126	88	100	92	88	88	80	—
3	Mr. F—n.	68	162	100	88	88	84	104	100	92	88	84	84	84	—
4	Mr. C—n.	76	152	120	100	100	96	112	108	100	100	96	96	96	—
5	Mr. S—s.	84	172	116	96	96	92	118	96	92	96	104	104	100	+
Average, . . .		75½	136	108½	92	92	88½	118½	101½	93½	96½	94½	96	92½	

TABLE I.—Six provers first ascertained their normal pulse, then excited it by running at their utmost speed for about five minutes, out of doors; immediately on returning to the room each prover's pulse was counted by another person, and, at the same time, just as the counting began, four provers each took a drop of Glonoin in a teaspoonful of water. In five minutes the pulse of each prover was again counted; the result as exhibited by the table, shows the pulse of the two who took no Glonoin to have been reduced 10

and 14 beats respectively; while the pulse of the other four who took Glonoin after running was reduced 40, 56, 56, and 14 beats respectively. So far the result agrees with that obtained by Dr. Hering.

But the experiment shows also certain undulations of the pulse. This was counted again ten and fifteen minutes after running. No. 1, who took no Glonoin, shows the pulse to have risen to 104 beats, after having previously sunk to 100. No. 2, without Glonoin, shows a steady decline from 125 to 88. No. 3, with Glonoin, shows a steady decline from 140 to 88. No. 4, with Glonoin, shows a decline from 144 to 88 in five and ten minutes, and then a rise to 96 in fifteen minutes. No. 5 was still more remarkable in this respect, showing a rapid diminution of pulse, from 176 to 120 in five, and to 104 in ten minutes, and then a rise up to 116 in ten minutes. Prover No. 6 showed a gradual decline.

We have then a falling and rising of pulse after severe exercise without Glonoin, *but the falling and rising is much more marked in two out of four provers who took Glonoin.*

TABLE II.—Eight provers, five women and three men, after ascertaining their normal pulse during rest, took one or two drops of Glonoin, and then counted the pulse every five minutes; the result was remarkable. The pulse of No. 1 sank from 88 to 86, and then to 84, as also observed by Dr. Hering. Nos. 2, 3, and 4, showed a rise after five minutes. No. 5 showed first a falling in five minutes, then a rise after ten minutes. No. 6 showed a rapid fall after two minutes, a rise in five, and a fall again in ten minutes. No. 7, having taken two drops, showed a decided fall in five minutes, and a rise in ten minutes. No. 8, like No. 1, after two drops, showed a decline both in five and in ten minutes.

Aside from the probable homœopathic effect, we see in Table I, that in two out of four instances (Nos. 4 and 5), there is a depression preceding a rise in the pulse under the effect of Glonoin given during excitement by running. And Table II shows four out of eight provers to have experienced a gradual increase of the pulse, and four others a very marked decline immediately after the medicine. *This shows clearly in both tables that the primary*

action of Glonoin may be depression as well as elevation of the pulse. And we would be justified in drawing the inference that all other symptoms are liable to exhibit such a fluctuation, illustrating how in one or in different individuals the same drug may produce opposite effects, which are not necessarily primary or secondary.

Table III is introduced to show that the pulse, having subsided after exercise, and having been excited again soon afterwards by a second effort, will be reduced by Glonoin. This was the case with three provers out of five. In Nos. 1, 3, and 6, the pulse was reduced lower in eight minutes after Glonoin than it was without it. This most probably finds its explanation in Table II, showing that the primary effect may be both diminished and increased action of the pulse, according to the individuality of the prover. It will, therefore, not always act homœopathically. Supposing, for instance, the prover to be one whose pulse is primarily depressed by Glonoin; it is then possible that that prover's pulse, when increased by running, would not be met by Glonoin homœopathically, but anti-pathically; for it may be found higher eight minutes *after Glonoin* was taken during arterial excitement, than it was eight minutes after such excitement *without the Glonoin*. If homœopathic, it should have reduced the pulse more quickly than it would have subsided of its own accord. The instance is illustrated by Nos. 2 and 4 of Table III. It is to be hoped that the subject will be established by further experiments.

Table IV shows very similar results, illustrated by a larger number of counts. The columns of Series I show a steady decline of the pulse after running without Glonoin; while the columns of Series II show a decidedly irregular falling and rising of the pulse, which first diminishes, then increases, and finally diminishes again. This was the case with provers 1, 2, and 6. No. 1 had after excitement and Glonoin a diminution of pulse, till in eight minutes it rose from 102 to 108, then fell off again in ten minutes. No. 2, after a decided fall of pulse to 88 in three minutes, had an increase to 100 in four minutes; then a gradual decline. And No. 5, after having his pulse diminished to 92 in four minutes, had an increase to 96 in five minutes, and to 104 in six and eight minutes, before falling to 100.

It will be observed that prover No. 2, whose pulse was primarily

depressed in Table II, showed considerable fluctuation in Table IV; he is the only prover who appears in both tables. So far we are able to conclude that the conditions of a prover may vary at different times, showing different results from the same experiment. Furthermore, that Glonoin may raise the pulse at once in some provers, and that it may primarily diminish it in others before elevating it, during the quiescent condition of provers (Table II), and that it will affect it in a similar manner when the pulse has been excited by exercise (Table IV).

Though in a fair number of cases Glonoin will diminish the pulse quicker after its excitement by exercise, than it would diminish without Glonoin, we also learn by Table IV that such homœopathic diminution does not always occur, but that the pulse may sink even more slowly under Glonoin than without it; as also shown by provers 2 and 4 in Table III.

Another purely physiological effect is also apparent, when provers excite the pulse by running a second time in ten or fifteen minutes. It will then be slower to sink under Glonoin than if only one effort to excite the pulse had been made, as in Tables I and III.

The dose is also a matter of importance. In the above experiments drop doses of the tincture (1.80) were used, and it was observed several times that increase of dose caused differences of results; thus in Table II, provers 7 and 8 had two-drop doses, followed by rapid primary depression; these were men. Two women (Nos. 1 and 5), taking only one drop, experienced from it the same effect as the men did from two drops.

Experiments are yet wanting to determine if higher attenuations will diminish the pulse quicker and with more certainty after running, than the drop doses of tincture used by the provers above named, and which failed in Table IV to produce a constant decline, but tended rather to elevate the pulse.

As for Glonoin as a substance, it is one of those whose active qualities are not latent or difficult to develop. Like its new relative, Nitrite of amyl, it acts more quickly upon the organism than most other substances. It is, therefore, well adapted to proving, and to illustrate to novices the effects of drugs upon the body.

STRYCHNINE AND ITS EFFECT ON ANIMALS OF DIFFERENT AGES.

The effects of Strychnine were ascertained by administering it to a number of cats, several of whom were young, from one to three months of age, and several old and full grown. The former had a third or a quarter of a grain of Strychnine placed upon the tongue. The kittens immediately became anxious, ran into corners to hide, and out again. In a few minutes their eyes seemed to protrude and to converge; their hind legs extended backwards; their tails bent upwards and forwards, so as almost to lie flat on their backs. This condition of opisthotonos lasted from three to seven minutes; the animals frothed at the mouth (as cats do from nearly all poisons) at this stage; light spasms appeared, as if the animal were suffocating, which was really the case. At the end of fifteen to thirty minutes the kittens died very gradually in the rigid state; and the younger they were, so much more gradual was the paralysis and death.

The effect upon old cats was very different. The animal after having received the poison upon its tongue, would walk away as quietly as if nothing had happened, and exhibited no signs of discomfort for ten or twenty minutes, rubbing against objects as cats do, sleeping, or moving about quite unconcernedly; but suddenly the animal gave a leap, and fell down quite dead. This was the case with three or four old cats. The dose given to the young as well as to the old cats was the same; but the effect apparently a very different one, showing first, that age of individuals makes as much difference as genus; and secondly, *that in kittens the primary and secondary effects observed in the order of their appearance were entirely different from the effects upon old cats.*

EFFECTS OF COCCULUS UPON FISHES AND FLIES.

The difference of primary and secondary effect of some drugs upon different orders of animals, is partially illustrated by trials of Cocculus upon vertebrates and articulates. Some Cocculus seeds, coarsely powdered and mixed with flour, were made into little pills, and thrown into water abounding in small fishes, who eagerly swallowed the bait; and, as is well known, they soon

came to the surface, swimming on their backs in a circle. This proved that one side was paralyzed.

At another time I placed three drops of tincture of *Cocculus* upon a few grains of sugar contained in a beaker-glass, and then imprisoned several house-flies and a large bottle-fly in the glass, covering the same with paper perforated with air-holes. The flies did not touch the sugar, but they avoided it as much as possible, running up the sides of the glass, and buzzing wildly about; soon they tried to fly with their heads down, as if trying to escape through the bottom of the beaker. In three to five minutes it became apparent that their strength was failing, because they dropped down after crawling up a little way; and finally, failing entirely in the effort, they staggered about on the bottom of the glass. No longer able to avoid the sugar, the odor from it alone soon affected the insects so that they lay on their backs, at first moving their legs rapidly, as if trying to recover their position, then moving more feebly, and dying in five to ten minutes, without having tasted of the sugar. While laying on their backs in the last stage of intoxication, they protruded and retracted the rectum rapidly, buzzing with their wings, but quite unable to fly.

Thinking the alcohol of the tincture might have produced the result, I next tried some tincture of *Belladonna* in the same manner. The flies ate greedily of the sugar saturated with tincture, and enjoyed it without the least inconvenience, living for several days, imprisoned in a glass, without other food.

The manner of death of fishes and flies from *Cocculus* is analogous. Both were paralyzed, but acted differently, according to the media they inhabit. The fish comes to the surface to die; the fly tries to dive through the bottom of the glass, as if his head were too heavy. Both fishes and flies expire lying on their backs. *But the paralysis of the fly was general, while that of the fish was one-sided*, owing, probably, to the higher development of the spinal cord of the fish, that of the fly being represented by their ganglia only.

THE EFFECTS OF DRUGS UPON THE HUMAN ORGANISM (OPIUM, ARSENIC, ALCOHOL).

It is much more difficult to determine the first and later effects

(primary and secondary) of a drug, tested according to Hahnemann's method upon man, than upon lower animals subjected to the influence of a poison. In the latter case fewer phenomena appear, and they are more uniform in lower animals the more the individuals of an order resemble each other, like flies, fishes, cats, etc. Similar observations hold good with regard to poisonous substances. Some will exhibit a much greater uniformity of action than others. Glonoin will be found, notwithstanding some deviations, to produce fewer symptoms, and to act with greater sameness on different individuals than Opium; this will produce less variety than Cinchona; this less than Natrum muriaticum; and this, again, less than Sulphur or Lime. The more rapid the action, the fewer and more alike the effects are found to be. The slower, on the other hand, the effects are developed, the greater their variety will be in one person, and the greater their diversity in many.

In the following arrangement, three substances have been selected on account of their great difference as to quality and effect. In order to distinguish the various stages of drug action, it will be unnecessary to enumerate all the symptoms these substances are capable of producing, as they are familiar; but the object is *to select prominent and well-known effects, and to arrange them according to the actual order of their appearance.*

For the purpose of distinguishing the different stages of effects produced by various doses, we will place side by side, in the following columns, what are known as "acute" effects produced by "poisonous" doses, and "chronic" effects produced by "small doses" more or less frequently repeated. The authors from whom the following selection is made, are Orfila, *Toxicology*; O. Bandlin, *Gifte und Gegengifte*. Some of the finer symptoms are taken from Hahnemann's *Materia Medica pura*, as far as the order of succession, which is not clearly indicated, could be traced.

Natural Order of Succession of the Acute Effects of

<p style="text-align: center;">OPIUM. (After large doses.)</p>	<p style="text-align: center;">ARSENIC. (After ½ to 1 ounce dose.)</p>	<p style="text-align: center;">ALCOHOL. (After large doses.)</p>
<p>I. Excitement, "stimulation," before drowsiness.</p> <p>II. Drowsiness; patient may be aroused by voices or shaking.</p> <p>2. Great desire to sleep.</p> <p>3. Half-waking condition.</p> <p>4. Face, while awake, is red; when sleeping, dark and suffused.</p> <p>III. Stupor; senselessness.</p> <p>6. Slow respiration or stertor.</p> <p>7. Pulse full and strong.</p> <p>8. Face dark, suffused, expressionless.</p> <p>9. Eyes closed; pupils contracted.</p> <p>10. Aroused with great difficulty.</p> <p>11. Convulsions sometimes.</p> <p>12. Relaxation of voluntary muscles.</p> <p>IV. Skin relaxed; cool.</p> <p>14. Pulse less forcible, and</p> <p>15. Gradually imperceptible.</p> <p>16. Breathing slow; intermittent.</p> <p>17. Prostration.</p> <p>18. Clammy perspiration.</p> <p>19. Heart beats after respiration ceases.</p> <p>20. Collapse and death in from six to twelve hours.</p>	<p>I. Weakness of body.</p> <p>2. Depression of mind.</p> <p>3. Nausea.</p> <p>4. Burning in stomach; aggravated by pressure.</p> <p>5. Burning in abdomen.</p> <p>6. Vomiting of brown slime and of blood, and milky flakes.</p> <p>II. Diarrhoea, with cramps in calves.</p> <p>8. Tenesmus and bloody stool.</p> <p>9. Alternate heat and coldness of the skin.</p> <p>10. Contraction and dryness of the throat.</p> <p>11. Great thirst.</p> <p>III. Pulse small and frequent.</p> <p>13. Pulse irregular and imperceptible.</p> <p>14. Jactitation.</p> <p>15. Clammy skin.</p> <p>16. Tetanic convulsions.</p> <p>17. Paralysis.</p> <p>18. Coma.</p> <p>19. Death.</p>	<p>I. Warmth in stomach.</p> <p>2. Immediate exhilaration of mind.</p> <p>3. Increased pulse; warmth; flushed face with mental exhilaration; swimming of head.</p> <p>4. Excitement; less muscular control of motion.</p> <p>5. Loud voice; violent gestures.</p> <p>6. Loss of control of judgment and disposition (cheerful; depressed; vindictive; affectionate, etc.).</p> <p>7. Loss of self-control.</p> <p>II. Delusions; follies.</p> <p>9. Violence.</p> <p>10. Diplopia.</p> <p>11. Loss of control of muscles.</p> <p>12. Staggering.</p> <p>13. Insensibility.</p> <p>14. Drowsiness.</p> <p>15. Sleep.</p> <p>III. Coma; delirium.</p> <p>17. Pupils dilated.</p> <p>18. Apoplexy.</p> <p>19. Death in 12 to 24 hours (or gradual recovery).</p>
<p>Group I to III represent mostly plus symptoms (+).</p> <p>Group IV, mostly minus symptoms (-).</p> <p>Symptoms are numbered in the order of their actual appearance.</p>	<p>Group I and II, +.</p> <p>Group III, mostly -.</p>	<p>Group I to II, +.</p> <p>Group III, mostly -.</p>

Natural Order of Succession of the Chronic Effects of small and repeated doses of

OPIUM.	ARSENIC.	ALCOHOL.
<p>I. Exhilaration; activity of physical functions.</p> <p>2. Ease of muscular motion.</p> <p>3. Agreeable excitement of imagination by pleasant visions.</p> <p>4. Acuteness of reason.</p> <p>5. Traits of temperament marked; (cheerful; despondent; fearlessness; timidity, etc.).</p> <p>6. Sexual excitement.</p> <p>II. Drowsiness.</p> <p>8. Sleep, with delicious dreams.</p> <p>9. Constipation.</p> <p>10. Depression of spirits.</p> <p>11. Physical relaxation.</p> <p>12. Sunken eyes; lachrymation.</p> <p>13. Loss of appetite.</p> <p>14. Emaciation of legs.</p> <p>15. Vertigo; headache.</p> <p>16. Neuralgias.</p> <p>III. Diarrhœa; dysentery.</p> <p>18. Sleeplessness.</p> <p>19. Loss of mental vigor.</p> <p>20. Impotence.</p> <p>21. Death ensues eventually, under signs of lung and heart disease.</p>	<p>I. Improvement of appetite.</p> <p>2. Heightened color, and feeling of comfort.</p> <p>3. Increased physical energy and endurance.</p> <p>4. Increased weight of body.</p> <p>5. Clearness of eyes and complexion.</p> <p>II. Œdema of eyelids and face (in three to seven days).</p> <p>7. Heat in throat and epigastrium.</p> <p>8. Nausea; burning in stomach, and headache.</p> <p>9. Pulse accelerated.</p> <p>10. Vomiting; purging.</p> <p>III. Like cholera.</p> <p>12. Dry skin.</p> <p>13. Weakness; prostration.</p> <p>14. Wakefulness.</p> <p>15. Conjunctivitis; lachrymation; photophobia.</p> <p>16. Eczema arsenicale; urticaria; eruption like scarlatina.</p> <p>IV. Partial paralysis.</p> <p>18. Numbness; formication in the extremities.</p> <p>19. Emaciation.</p> <p>20. Exhaustion.</p>	<p>I. Constant or periodical craving for alcohol.</p> <p>2. <i>Hallucinations; delirium.</i></p> <p>II. <i>Sleeplessness; tremors</i> (caused both by sudden withdrawal of alcohol and by excess).</p> <p>3. Chronic gastritis.</p> <p>4. Gouty diathesis.</p> <p>III. Disease of liver; hypertrophy, then atrophy.</p>

ANALYSIS OF TABULAR ARRANGEMENT OF OPIUM, ARSENIC, AND ALCOHOL.

Opium.—In the preceding arrangement of symptoms, the effects of large doses of Opium are first enumerated. On the opposite page are those produced by smaller and repeated doses. In the first place, we are enabled to observe by this arrangement that in both instances *the symptoms from first to last form an uninterrupted series.*

If we regard only the beginning (I), and the terminal effects (III and IV), they may appear to be actual opposites of each other. But

when we take into consideration the intermediate stages and lesser symptoms, as enumerated from first to last, irrespective of the Roman numerals, it will be readily seen that one effect follows the other, and that in many instances one effect gradually changes into the next, to which it gives birth as it were. In arranging a series of symptoms like that of Opium, our knowledge of pathology is of service; or else *excitement* and *drowsiness* might be taken for opposite conditions, while in reality they depend on the same pathological process, viz., a certain kind of increase of cerebral circulation producing exhilaration in the beginning, but increasing at a later stage, it causes drowsiness and stupor. The outward effects are different, while the inner process is the same in principle.

We observe in the acute effects a distinct primary stage of excitement of short duration, not passing over at once into death, but into the next and larger stage; first, of stupor, then coma, followed lastly by prostration and paralytic collapse.

When we compare with the preceding the order of symptoms as produced by smaller doses, more or less frequently repeated, we find quite an analogous series; but the stages differ in time of duration, not in kind nor in the manner of their production. The period of exhilaration, etc. (I) is much longer, and can be prolonged, almost at pleasure, by repeating the dose (as opium-eaters do) as soon as the exhilaration of mind and body subsides; or it may be pushed to the half-sleeping dreamy stage of luxuriant visions which is included in the first stage. The following case of chronic opium poisoning may serve as an illustration:

August 7th, 1871.—Mr. C. H., about 50 years of age, has been in the habit of using Opium for three or four years, and cannot do without Morphia now, of which he consumes about six grains in twenty-four hours. The effect is a peculiar one of becoming conscious of being possessed of two persons, of another self besides his real self. The opium-man does things which the real self considers wrong; and it is not always sure which will conquer the other. When he is under the influence of Opium, he seems to others to be in his normal condition; but a little intercourse with him, shows his mind to be not only clear and active, but filled with gigantic schemes and theories, the realization of which seems to him quite natural and easy. His faculties are remarkably keen,

and his power of expression wonderfully terse and convincing. His appetite is good; and he sleeps apparently naturally, if he does not exceed his regular dose. As soon as the effect begins to subside (as it does after sleeping), he is depressed and melancholy, which soon reaches an extreme state of suicidal depression, in which the world seems terribly dull, and he feels driven to desperation as if haunted by evil spirits. This condition is brought on by occasional attempts to resist his destructive habit; but he cannot endure abstinence long. As soon as he takes his accustomed dose of Morphia, he is at once changed from a cringing desperate creature into a spirited and energetic individual. If the dose is a little too large, or repeated too often, the excitement and energy are changed into somnolency and the stage of delicious dreams; on awaking from these the prostration of body and mind is extreme.

The first stage, with or without repetition of dose, may be followed by somnolency, more or less profound, according to the susceptibility of the individual. In the preceding tabular arrangement, this stage is divided into two parts (II and III) when referring to acute symptoms. In the effects of smaller doses (known as chronic poisoning by old-school authors), we are able to distinguish a third stage (III). *This corresponds to the state of dissolution or collapse of Group IV of acute poisoning. Hence it becomes evident that "acute" and "chronic" poisonings do not differ in principle of action, but merely in the manner in which the symptoms become apparent to the observer.*

In very "acute cases," stupor, collapse and death may be the only effects noticed, and these may follow within a very few hours, without observable intermediate effects, which in more prolonged cases separate the beginning and the end of the series.

Arsenic.—What has been said of Opium applies, in principle, to Arsenic. Observers have always distinguished an acute and chronic effect of Arsenic, meaning those of large and fatal doses as compared with those of smaller and repeated doses. Like the effects of Opium, we may, for the sake of convenience, divide the acute symptoms of Arsenic into three stages, beginning with weakness (I), culminating in vomiting, diarrhoea, cramps, etc. (II), and ending in coma, paralysis and collapse (III). Other subdivisions could be made if desired.

Like Opium, Arsenic may in very acute cases and after fatal doses evince so rapid an action as to merge first, second, and last effects into one; viz., coma, paralysis, and death. Such cases afford no opportunity of estimating the true succession of symptoms of any drug, nor of the distinctive effects of different drugs, chiefly because all rapidly fatal cases resemble each other closely.

The graduated medicinal dose affords us the best opportunities for observing the true order in which the toxic effects of Arsenic, or of any other drug, are produced. In the preceding arrangement the often doubted and frequently disregarded exhilaration and increased vigor, brilliant complexion and eyes, have been placed at the head of the list as primary in order of time. Next in order comes œdema of the face, nausea, burning, etc.; and, lastly, conjunctivitis, eczema, emaciation, exhaustion, etc.

This is not to be regarded as implying the existence of a sharp line of distinction between the stages of the action of Arsenic (Opium or Alcohol). *The transition is gradual*, and the division into primary and secondary stages, more or less arbitrary. The principal points to be observed are, that we can actually discover *no essential difference in the manner of production of these successive stages of the series*. There are no sudden leaps of action from one stage to another; but the entire series begins faintly, and culminates in marked or violent effects, under which the system may recover or perish. This chain of successive symptoms may be imagined to be the result of pathological changes, as follows: Taking the chronic effects of Arsenic as a guide, we see the exhilaration and increased vigor result from increased nerve-power, resulting in vascular action, which leads to temporary vigor and increase of weight; but if the drug is persevered with, this same vascularity (which, of course, is specifically distinct from the vascular action caused by Opium or Alcohol) will result in local œdema; while the destructive effect upon other organs also becomes apparent in burning pains, vomiting, etc.; and, lastly, it results in emaciation, loss of hair, teeth, and great exhaustion, all possibly the result of wasting of connecting tissue.

It is a gradual process, that may end in destruction or recovery, according to the dose or frequency of its repetition; and it is

erroneous to suppose that the exhilaration in the beginning of the series, being the opposite of exhaustion at the end, is more than the former effect due to the antagonistic or after effect of the organism. This reactive power is present alike in excitement and exhaustion; with this difference, that in the former case the organism is still vigorous, while in the latter it has already declined, so that its reaction is feeble.

Precisely the same principles are involved in the action of Opium and of Alcohol, each differing in kind according to the tissue-elements for which it has an affinity, as Arsenic may be related to connecting tissue, Opium to the nerve-substance, and Alcohol to the vascular system.

Alcohol.—After reviewing the effects of Arsenic and Opium, and having offered reasons for considering their action as an uninterrupted succession of political changes, making themselves known by as many outward symptoms, very little remains to be said of Alcohol. This substance, by means of its rapidly produced and familiar effects, offers good opportunities for the construction of a perfect series. Beginning with exhilaration (I), culminating in delusions and loss of control of reason and motion (II), its acute effects end in soporific sleep, and waking with severe cerebral pain (III).

There is no difficulty in arranging the first and second groups; but it is a question yet to be determined whether to include the symptoms following the waking from sleep in the third group, or whether to allow them to form a fourth group by themselves. Some light may be thrown on the subject by comparing the acute stage with what is known as chronic alcoholism of the habitual drunkard. Of these, two varieties are distinguishable; those who drink regularly *every day*, who cannot live without alcohol, and who are seemingly in their normal state only when regularly supplied, without ever appearing drunk, and the *periodical drinker*, who is sober for weeks or months, and then is drunk for several days at a time till he is satiated.

It is difficult from such instances to arrange a correct series of effects in their true order, yet the symptoms given in the above series are most probably correct in order of time. The delirium tremens is observed upon sudden omission of the accustomed

stimulant of the daily drinker, and it is equally certain to appear when alcohol has been taken in excess by the periodical drinker. Furthermore, there is reason to believe that delirium tremens, both of the constant and the periodical drinker, corresponds to the condition observed the morning after a debauch committed by the occasional drinker. Delirium tremens is caused by protracted or frequently repeated congestion, as seen in a milky discoloration of the pia mater and arachnoid after death. The intense headache, vertigo, prostration, and irritability following a brief inflammation caused by a single excess, only foreshadows delirium tremens as the result of intoxication frequently repeated for years; it should, therefore, be included in the third stage of acute intoxication.

Like opium and arsenic, alcohol is capable of producing a violent intoxication, beginning with brief excitement, speedily followed by coma, and in some cases by death from apoplexy or inflammation of the brain and meninges. The difference between alcohol, opium and arsenic is, that in order to produce such effects, a comparatively large quantity of the former is required, varying from one to several ounces.

This bears closely upon the question of the dose, as Grauvogl has pointed out, some remedies requiring larger, others smaller doses in proving, as well as for therapeutic purposes.

GENERAL OBSERVATIONS ON THE SUCCESSION OF SYMPTOMS.

Hahnemann considered the opposite effects produced by a drug as primary and secondary, as for instance the excitement of Opium as contrasted with the depression. Now, as the pathogenetic effect of drugs, according to Hahnemann, is the primary effect, and the reaction of the organism the secondary or curative effect, we are to *make use of primary or pathogenetic symptoms alone.*

For this purpose, it would be necessary to define with regard to every drug the exact limit between its purely pathogenetic effect and that point at which the organism begins to react. The question arises, is there such a limit, and how is it to be discovered? This question can be answered by consulting the provings of drugs. The simplest example is afforded by the effect of Glonoin on the pulse. Throwing aside for the present all other symptoms,

we observe as a rule a *gradual rise of the pulse to a certain point, and then a gradual decline*. The point of distinction between rising and falling, representing primary and secondary action, will be difficult to locate, because the ascent and descent are too gradual. Where there is first a gradual decline to a certain point, and then a gradual rise, or where there is an undulating effect of alternate falling and rising of the pulse, it would be equally impossible to designate a particular point at which the primary effect ends, and where the secondary effect begins. The effects of Glonoin upon the pulse are best represented by a *curve*; the entire list of variations of the pulse (as well as other symptoms) would then form a gradual series *at no particular point of which it is possible to draw the dividing line between primary and secondary effects*.

In the cases of strychnine-poisoning, although violent and rapidly fatal, a similar curve may be constructed, showing the gradual rise and fall of pathogenetic signs.

In the above cases of Glonoin, the system rallied from the small doses; in the strychnine-poisoning with large doses, it did not rally. Still there is a portion of the curve at which the symptoms reach their height, remain so awhile, and then decline in the stage of agony and collapse.

We may, for practical purposes, divide the end or decline of every drug-effect into symptoms of recovery or into those of decline and approaching death; the latter are again divisible into the symptoms of agony or death-struggle, and into actual collapse. The transition from primary to secondary, etc., can often be traced; at other times it is merely lost sight of, and we recognize only the end, ignoring the intermediate stages.

This is very apparent in the instances of poisoning by large doses of powerful drugs like opium, arsenic, alcohol, etc., as will be demonstrated farther on.

The object of arranging the symptoms of these three well-known and potent drugs in the order of their appearance is to show that, like Glonoin on the pulse, *they produce upon the system at large an uninterrupted chain of symptoms, rising more or less gradually, maintaining their position at the summit, and then as gradually declining; ending in recovery or death, according to the dose and power of endurance of the individual*. Like those of Glonoin, the

effects of other drugs admit of being represented by a curve, which varies in direction at every point, and at none of which a line can be drawn sharply defining primary and secondary effects.

It is, however, admissible to divide drug-effects not only into primary and secondary in regard to the time of appearance, but we may with equal propriety, and for the sake of convenience, divide them into as many sections as we choose; not only into primary and secondary, but also tertiary, quaternary, etc. But in symptoms as met with at different sections of the curve, we certainly observe great differences, which are apparently opposite, and apparently, but not really, owing to different causes, as alleged by Hahnemann, according to whom one kind is due to the drug, the other to the system.

The antagonistic counter-effect of the system is as apparent in the effect of the first symptoms produced by a drug as in the last; for it is, after all, the suffering (pathogenesis) which indicates the degree of resistance of the organism, the recuperative effort of which does not cease from beginning to end. The exhilaration of arsenic is as much the result of reaction as the œdema; the excitement and muscular vigor of opium is as much due to organic reaction as the somnolent and soporific stage, because drug and organism must act together to produce any effect whatever, and they act together from beginning to end. That is what Grauvogl means by reciprocal or alternate effect.

It is equally true that at different periods of combined effect of drug and organism, the one may be, figuratively speaking, in the ascendancy, while the other is in the decline. The drug may overcome the organism, or the latter may recover from the drug-effect. Between these results innumerable stages are possible; there may be an uninterrupted gradation, or there may be undulations; the system may rally or succumb several times before final recovery or death. This undulation, it appears, is what Hahnemann designated as alternating effect of a drug, as striking examples of which he mentions Ignatia, Bryonia, Rhus, and sometimes Belladonna (*Org.*, § 257). The fact is undoubted, though it admits of a different explanation, as we have already seen. *Hence it is necessary to modify the doctrine of primary and secondary symptoms of drugs to this effect, that while we may recognize pri-*

mary and secondary effects according to time, we must bear in mind that, though opposite, they are due to the constant mutual action of drug and organism.

The effects of doses vary extremely; large and "poisonous" doses resulting in so rapid an effect that the different stages are merged into each other and become indistinct, and it is sometimes impossible to trace anything like a primary or secondary effect. Prostration, torpor, paralysis and collapse, are sometimes only partially distinguishable, and are common in cases of poisoning by every powerful drug. These skip, as it were, the primary effects, and terminate life at once; or, as Hahnemann expressed it, "the primary reaction passes in the form of after-effect into death" (*R. A. M.*, I, 276).

The full series of successive pathogenetic drug-effects can only be observed in the proving of drugs in carefully graded doses, from the ordinary medicinal dose to the minimum dose, as recommended by Grauvogl (§ 87). The therapeutic value of the most violent effects which a drug is capable of producing is questionable. After too large a dose the beginning of a perfect series of symptoms is apt to be lost to the observer; in too small a dose the end of a series is not developed. For example, a large dose of *Veratrum* will produce diarrhœa at once; small doses of every so-called cathartic will primarily cause costiveness.

RELATIVE VALUE OF PRIMARY AND SECONDARY SYMPTOMS.

Hahnemann, alluding to excessive doses, says that these produce secondary symptoms entirely the opposite of the primary. The secondary symptoms of large doses, which are due to the reaction of the organism, are to be avoided by using moderate doses, against which the organism reacts only with force enough to restore normal health (*Org.*, §§ 112-115). In order to establish this theory, Hahnemann makes an exception with regard to "narcotics" (*R. A. M.*, I, 276-7). We are unable to draw a line between narcotics and other old-school classes of drugs; it is, therefore, strange that homœopaths, after throwing aside such classification, and, after accepting only the results of careful proving of drugs, should at once recognize narcotics as a class. It is, therefore, preferable to adhere to Hahnemann's first proposition.

After proving a medicine, or in making use of a well-observed and reported case of poisoning, it is necessary to weigh each symptom carefully as to its therapeutic value under the rule of similars. In making up this estimate we should be guided by the following proposition: *The effects of large doses, tending to overpower and kill the organism, are of very different therapeutic value than the effects of doses which the organism is able to overcome.* This is not exactly what Hahnemann said; but, nevertheless, we should recognize both ends of the series of drug-effects, "primary" as well as "secondary." The important question arises, where is the superior strength? Will the morbid process proceed to a fatal termination, notwithstanding the recuperative effort of the organism; or will it recede under the recuperative effort of the organism?

Turning, again, to the abbreviated series of Opium, Arsenic, and Alcohol symptoms, we observe that the "acute," as well as "chronic," may end in recovery or death, according to dose, frequency of repetition, and power of resistance of the individual; and supposing "acute" and "chronic" effects to have been arranged in one series, so as to exhibit all the effects of these drugs in their natural succession, such an arrangement would enable us to *divide these drug-effects into symptoms from which the system recovers, and into those under which it sinks and dies.* Though it will be found difficult to draw such lines of distinction, still it may be done with sufficient accuracy by careful comparison of numerous well-reported provings and poisonings, and will be a necessary distinction in future arrangements of the *Materia Medica*.

The symptoms from which the system rallies are marked *plus* (+); those belonging to the period of decline are to be distinguished by the sign of *minus* (—), in the preceding tables of arrangement.

The same phenomena are observable in every severe case and fatal case of disease, in acute cases running a brief course of hours or days, as well as in those which eventually terminate life after lingering for years. The last stage of chronic disease is quite analogous to that of acute affections; the stages of the former differ from the latter, as provings with methodically graded doses differ from poisoning by large or frequent doses. In every dan-

gerous case of disease or poisoning, if not arrested at an earlier period, *there is a point beyond which recovery from natural or artificial influences begins to be doubtful, and finally quite impossible.*

This does not preclude the above assertion that the recuperative process is active to the last moment; the very last breath is still the last protest of the organism against dissolution, which at that stage is inevitable. *Now, by placing the terminal phenomena of a case of disease side by side with the terminal phenomena of poisoning by a drug, according to the law of similars, neither can be expected to counteract the other homœopathically.* This proposition requires illustrative examples, which may be found in so-called cases of failures sufficiently common in every-day practice.

April, 1874, a boy, aged 10 years, of delicate constitution, was attacked with enteritis, brought on by exertion and exposure. The first symptoms of his sickness began about three weeks before. At first there were paroxysms of colic; the bowels were constipated; vomiting occurred from time to time. The old-school attendant prescribed opiates, then cathartics, accompanied with mustard poultices, while the drinking of cool water was, as usual, cruelly prohibited. At the time when the homœopathic physician was called he found the patient's extremities cold, clammy sweat, purging of blackish and undigested matter, great jactitation. The nausea and vomiting had ceased; the patient was indifferent to water; his mind anxious but clear; his countenance expressed apprehension and suffering.

Several remedies might be used in such a state; none was more clearly indicated than Arsenic. As a matter of course it had no effect, and never did in that stage, nor even in earlier portions of that stage of disease.

Nov. 18th, 1874, Mrs. F., aged 30, enjoyed fair health, was of cheerful disposition, and very "pink and white" complexion; she was suddenly seized with hæmorrhage of the lungs; the cough was hard, and she quickly expectorated nearly a quart of frothy blood and mucus. Examination revealed almost complete tubercular infiltration of both lungs. The pulse was quick; the face flushed; cough dry and painful. Ferrum, China, Ipecac, etc., seemed at times to arrest the hæmorrhage, but did not prevent its repetition, which occurred three or four times a day. Finally the bleeding

ceased ; but soon the pulse became more feeble, the face pallid, and the extremities cold, respiration intermittent, and death closed the scene.

To such symptoms in similar instances it is usual to oppose the symptoms of the stage of decline, or even of the agony observable in cases of poisoning, as, for instance, by arsenic. But in such cases the symptoms of the remedy, as well as those of the disease to which it is applied, belong to the stage at which recovery is no longer probable or possible, and experience abundantly proves that the law of similars must fail here, because it is no longer applicable. Drug and disease are not *similar* in such cases, but *equal*, because the last stages of drug-disease and natural disease are almost, if not entirely, equal. Attempts like these are like endeavoring to cure the last stage of arsenic-poisoning by attenuations of Arsenic, of opium-poisoning by Opium, etc. ; at best it may be compared with attempts at resuscitation of a person dying from a blow upon the head, by gently tapping that region with a light wand.

The allopathic or enantiopathic method in such cases would be equally futile. Stimulants in enteritis, and bleeding and sedatives in pulmonary hæmorrhage, would be like smothering the charred and smouldering embers of a burned building with great quantities of water.

Another proof of the uselessness, nay, danger of an attempt to use the symptoms of the stage of decline and of agony, is afforded by the experiments of Anstie (*Stimulants and Narcotics*, p. 372), where, in order to show the "stimulating power of alcohol in arresting the narcotic effect of opium," he injects a certain quantity of alcohol, together with twenty drops of an aqueous solution of opium, into the bellies of frogs. These generally die more quickly and without tetanic spasms where alcohol was used, *and lived longer with tetanus* where it was not combined with opium. From this the author draws the erroneous conclusion that alcohol "modified," *i. e.*, lessened the influence of the narcotic. The more rapid death of the frogs without spasm is more plausibly explained by assuming that the convulsive stage was skipped and *death hastened* by the increased intensity of opium and alcohol combined ; at all

events we cannot regard the result in the light of an improvement of the effects of opium by alcohol.

The preceding argument does not preclude the use of attenuations of remedies in apparently hopeless cases, especially when there are still symptoms belonging to the ascending or plus portion of the series; for such symptoms are sometimes removed and great relief obtained, in the last hours of sickness, by means of remedies chosen and applied under the rule of similars.

WANT OF DISTINCTION OF SYMPTOMS IN OUR MATERIA MEDICA.

Drug-proving furnishes the means of distinguishing the curative powers of drugs, but, as the relative value of phenomena thus obtained was ill understood and often obscured by excessive results of cases of poisoning ("domestic, criminal, and accidental"), sufficient distinction has never been attempted between the primary, secondary, tertiary, etc., effects of drugs. What needs to be done henceforth, in perfecting the mode of healing by means of drugs, will be to *distinguish most carefully and accurately those signs and symptoms (subjective and objective) under which the organism rallies (+) during a proving or poisoning, and those under which it declines and fails to rally (-)*. The former are determined partly by actual recovery, and partly also by analogy and our knowledge of the value of pathological stages. Even in the earlier stages of fatal cases running a chronic course, there are numerous symptoms that belong also to cases of recovery. The symptoms of approaching agony and collapse, are distinguishable in the same manner. Though human knowledge may never be able to draw these lines with absolute precision, yet it can be done with a much greater degree of accuracy than has ever before been attempted.

In our text-books of *Materia Medica*, and owing to the artificial order of their arrangement, primary and secondary symptoms are undistinguishable. This is of less consequence with regard to the plus symptoms or those of recovery; but many of them, mixed up with the symptoms of decline and collapse, under which the organism manifests its unsuccessful recuperative efforts, renders our compiled symptomatologies uncertain. The separation of

series belonging together, and the artificial arrangements according to anatomical regions, is admissible only *when the student and practitioner can refer at any time to the full and natural order of phenomena from which to select the symptoms to be used under the rule of similars.* The reasons for this will become more obvious when the plus symptoms and their curative value are considered. For the present the following may serve as examples of symptoms of the period of decline as produced by Arsenic; they are taken from among those of our *Materia Medica*: *Enormous sinking of strength; profound syncope; feeble pulse; general and rapid failing of strength; extreme prostration; hanging of the jaw; sunken eyes and open mouth; spasms and convulsions; delirium; unconsciousness; failure of vision; deathly pallor; suffocation and great prostration; imperceptible respiration, etc.*

A similar list of symptoms, all belonging to the serious stage of poisoning, could easily be collected from among the recorded symptoms of many drugs of the dangerous kind, usually designated as poisons, such as *Nux vomica*, *Opium*, *Belladonna*, etc., which abound in them.

The preceding aims rather to illustrate the principles involved, than to attempt an absolute division, which must and will always remain a matter of individual judgment, though with accurate knowledge of drugs we may draw the lines of distinction very closely. Thus we may venture to use a certain proportion of the graver symptoms of *Cocculus*. The hemiplegia, for instance, applied under the rule of similars, led, in my practice, to the recovery of at least two cases of infantile convulsions caused by cerebral congestion. Certain forms of paralysis are curable by *Nux vom.*, but *opisthotonos* does not yield to it as readily as the stiffness of muscles of the jaw, weight, weakness and trembling of the limbs, etc., which may be considered as the stage just preceding the more violent and fatal convulsions. Soporific sleep and mahogany-colored face may be cured by *Opium*, but not the pallor and profound coma.

SYMPTOMS THAT SERVE AS GUIDES IN THE SELECTION OF
REMEDIES.

In accordance with the preceding observations and illustrations, it follows that *the whole series of consecutive symptoms from which the system recovers, down to the symptoms of decided decline, may be used as guides in selecting remedies, under the rule of similars.*

I will here anticipate an objection that may among others be urged: If only drug-symptoms from which the system rallies are applied to stages of disease from which the organism may recover, why use medicines at all? Hahnemann, in order to meet this objection, denied the healing power of nature to a large extent, and attributed the curative power exclusively to medicinal action (*Org.*, § 12). Since he has been the chief authority on this subject that has governed the course of countless followers, it may not be uninteresting to the younger members of the profession briefly to review Hahnemann's reasons. He admits the reaction of the vital force, but deems it too violent. The disturbance of this spirit-like vital force is inseparable from the material organism, and when disturbed it constitutes disease. But the vital force is irrational; hence its attempts at relief (*vis medicatrix*) are crude and often deleterious; and therefore human reason and skill alone are to give proper direction to the efforts of nature. Though the vital force, continues Hahnemann, may rid itself spontaneously though imperfectly of *acute diseases, it is entirely powerless in the chronic* (Introduction to the *Organon*, 5th German ed., pp. 19, 23, 25, 27, and §§ 15, 27, 43, 46, 50, 51, etc.).

Instead of accepting Hahnemann's views unconditionally, we would to-day strengthen the position of homœopathy by admitting unreservedly the healing powers of nature, and that without this ever-active principle known as the *vis medicatrix naturee* no medicine, no law of cure, no dietetic regimen would ever be of value. We may even consider spontaneous recoveries from acute diseases to be quite common, unless we wish to assert that every case of recovery under our hands is due to our skill. We may also admit that spontaneous recoveries from chronic diseases (syphilitic and otherwise) are not uncommon. While making these admissions, however, we also are able to prove by teeming

volumes that both acute and chronic diseases are often alleviated, abbreviated, and cured by the reinforcement of the vital principle by medicines under the rule of similars.

To return to the topic of applicable symptoms, I repeat that the entire series of symptoms preceding the period of decline are available in curing. *But to obtain such useful symptoms it is necessary to prove drugs in small doses, graded so as to test the powers of the organism fully, but not to overcome it (Org., §§ 112–115, Grauvogl, § 87). Proving of drugs consists in observing the signs under which the organism overcomes disease, not those under which it succumbs and dies.* Instead of underrating the efforts of the vital force, we watch its processes carefully, and though we do not fathom the essential nature of its workings, we readily perceive the signs of its activity, and gladly accept them as guides in the selection of remedies in practice.

The superiority of intelligent application of natural forces is illustrated by our method of proving, as contrasted with the questionable knowledge derived from cases of poisoning for criminal purposes, from accident, or mistakes of physicians and apothecaries. Though such instances are useful, it will be necessary to distinguish the plus-symptoms from those of the minus or descending scale.

THERAPEUTIC VALUE OF DIFFERENT STAGES OF THE EFFECTS AS EXHIBITED BY DIFFERENT DRUGS.

In determining the successive stages of the effects of drugs, we meet with other difficulties besides those already mentioned. The examples given above of dangerous drugs (opium, arsenic, alcohol), furnish the extremes of drug-action in general. But drugs differ widely in regard to intensity of action, the quantity required to produce an effect, and the time of its duration, as well as the manner of producing the effect, and the nature of the effect itself.

The old school has always endeavored to base its classification of drugs upon some of these effects; sometimes curative ones, as "alteratives" and "tonics;" sometimes pathogenetic effects, like those of narcotics and stimulants, cathartics and emetics. Notwithstanding the inconsistency of such classification, we dare not

disregard certain broad distinctions by which drugs admit of arrangement into groups. The following is a sketch of a plan of arranging medicines into groups according to general characteristics.

Group 1 might be made to embrace all those of intense and dangerous effect; such as many of the Apocynaceæ like *Nuxvomica*; many Umbelliferæ like *Conium*; Solanaceæ like *Belladonna*, *Tabacum*; metals like arsenic, copper, etc., some of which have already been discussed. Nitrite of amyl and glycyl, prussic acid, etc., may be made to form a subdivision of this group.

Group 2 would consist of substances resembling in regard to intensity of action, lead, tin, iron, Iodine, Bromine. To these may be added many vegetable poisons, such as *Cinchona*, and many of the "tonics" of the old school. Most, if not all of these drugs, though powerful in their effects on the system, are not immediately dangerous, even in large doses; they require time for the development of their effects, which are remarkable for their chronic course rather than their violence. Mercury, for instance, produces a train of effects so long and so gradual that the plus and minus portions are distinguished with great difficulty, though the distinction is possible. Probably a much greater proportion of the effects of this group are available for curative purposes than of the preceding group, because the point at which the organism ceases to react is very remote. Numbers of this group require small and repeated doses as a rule.

Group 3 includes chiefly those substances which the old school calls diffusive stimulants, like alcohol, ether, chloroform, musk, coffee, tea, camphor, and many aromatic spices. These substances resemble those of the first group by the promptness of their effects. Their powers are easily liberated, existing as it were in a free state; but they are not as dangerous to life as those of the first group, and their effects are often agreeable, even if taken in large quantities.

The symptom-list of these substances is generally much shorter than that of the former groups, and admits of therapeutic application under the rule of similars, with the exception of brief terminal fragments. The dangerous or minus effects are rarely exhibited intentionally or by accident; their plus and minus symptoms

are, as a rule, not difficult to determine. Substances of this group generally require to be used in large quantities to develop their effects, and *need little or no preparation by dilution or trituration to unfold their powers, which need only to be brought in contact with the human system to be set free.*

Group 4 may be said to be composed of such substances known to the old school by the ambiguous name of "alteratives;" it also comprises many substances which the old school ignores altogether as inert, such as lime, sulphur, silicea, sepia, lycopodium, etc., etc. These substances differ from those of preceding groups by requiring a special process to unfold and liberate their powers. This is accomplished only by mechanical extension of surface; by trituration of insolubles, and by dilution of solubles. Prepared in this manner, their effects are mostly slow to appear; they are not excessive, but of great variety and scope, generally invading every tissue and organ, and remarkable on account of the length of their duration.

This group presents widely different phenomena from the preceding; though never violent, there is no doubt hypothetically, that these instances might ultimately reduce the system to a point of decline; but as yet this has seldom been reached; perhaps only when lime or sulphur showed in drinking-water. We have, however, a long series of symptoms attributable to some of these substances, which it is necessary to arrange in their true pathogenetic succession. This has scarcely ever been attempted, and the means for doing so, namely, the reports of provers, are wanting. But we may safely assume that a greater number of provers and other observations have been required to make up the pathogenesis of sulphur, lime, etc., than are needed in the proving of more active medicines, whose limits of action are more easily determined. If the number of provers of lime and sulphur was not large, then each of those provers produced a great number of symptoms differing from those experienced by the others. This is often met with in the proving of drugs in attenuated doses, where the individuality of the prover plays a greater part. This gives rise to the greater difficulty of applying the remedies of this group.

Supposing, for the sake of argument, that these provings were

faultless, it is doubtful, and yet to be determined, that symptoms produced in one prover, *will leave similar symptoms of disease in a person on whom those symptoms could not be produced by proving the same drug.* This was partly illustrated in the explanation of the effects of Glonoine upon the pulse (Table III), where the same medicine produces different effects in different provers. This may account for failures in curing where remedy and dose were well chosen.

Finally, the great contrast between these groups is of advantage in determining what portion of the effect of drugs may be used under the rule of similars, and what will be likely to fail in the cure of diseases.

Supposing our provings and other observations to have been arranged in a perfect series showing the true succession of symptoms, then not only the ascending, but also the descending portions of the series would admit of numerous subdivisions. Our own literature is replete with well-reported cases, proving that not only the first, but all of the succeeding stages of the ascending portion of our scale has been useful under the rule of similars, and the fact finds further support on the part of old-school authors, especially Anstie, who furnishes good evidence that not only the exhilarating stage of alcohol, but also the next stage of severe congestion of the brain is capable of curing serious morbid conditions resembling it. (*Stimulants and Narcotics*, p. 371.)

“The first examples which I shall produce,” says Anstie, “are found to the effects of small as contrasted with large doses of Alcohol upon various convulsive disorders. I have already spoken of the powerful effect which alcohol often exerts in averting threatened epileptiform attacks, and have insisted upon the fact that it is a small dose only which is required; an excessive quantity being neither necessary nor safe. . . . It would be a great mistake to suppose drowning a patient in drink will dissipate the convulsive tendency. . . .”

“*The effect of alcohol in arresting the convulsions of teething is one of the most remarkable instances of a real therapeutic influence which can be witnessed. . . . There is not the least necessity for intoxicating the little patients; a minute dose of wine or brandy (for young infants a few drops at a time in a little water) is amply*

sufficient for any good purpose that can be effected. . . .” Further on (*loc. cit.*, 9393) follow a number of cases of typhoid fever and erysipelas characterized by *delirium*, which were speedily arrested or prevented by considerable quantities of alcohol, without producing inebriety.

If these were cures, they were evidences of the frequent unintentioned application of the rule of similars by the old school. It might, however, be urged that alcohol does not produce convulsions, and that it could not have been homœopathic in the cases quoted by Anstie. I would answer that the convulsions which alcohol might produce, belong to the effects of its descending scale (—). Even Anstie urges small doses in epilepsy, because large ones always produce an attack in persons predisposed to that disease (*loc. cit.*, p. 372); and, secondly, the law of similars does not always apply to the most violent and prominent symptoms of a disease, but often to symptoms of seemingly minor importance. Silicea, *e. g.*, cures epilepsy occurring at night during sleep, where the patient sleeps through the attack, which is only noticed by others. We do not give opium in comatose sleep alone, but we are led to it by the brown color of the face, and the slow, stertorous breathing, while belladonna is indicated by the redness of the face, dilated pupil, injected eye; all of these are symptoms from which the system is able to recover, notwithstanding the profoundness of the coma.

The case would be different, where in poisoning from opium or belladonna, or in natural disease, the turgor and pulse had ceased to indicate the yet ascendant vigor of the organism, and had given place to pallor, coldness, and feeble pulse. But down to that point, the entire array of symptoms of every drug is available for curative purposes.

ARTICLE II.—Therapeutics of Diphtheritis.

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THE following pages contain a compilation* and critical review of the therapeutics of diphtheritis, collected from the German and American homœopathic literature, and translations. We have arranged the material in a similar way as in Rueckert's *Klinischen Erfahrungen* (clinical experiences), and have mentioned all clinical cases and general remarks regarding a remedy which seemed of interest, but omitted all cures with medicines in alternation, or by the use of one drug internally and another externally (locally). Although such a mixed treatment may be justified in many cases, yet, as there can be nothing learned from them, it seemed useless to mention such.

Before enumerating the different remedies, which have been used or recommended, we wish to bring first a few general remarks on diphtheritis.

1. The genuine diphtheritis belongs to that class of epidemic and contagious diseases in which specific vegetable germs invade the human body and cause pathological changes (inflammation and gangrene) in the primary affected membranes, and also cause a general infection and considerable disturbance in remoter organs and tissues, by entering into the circulation of the blood (*Internat. Hom. Presse*, 6, 577; Balogh).

2. Nature of diphtheritis and its difference from croup.

a. Diphtheria prevails during winds with a *damp* atmosphere; in this section of the country, sea winds.

Diphtheria has a stadium prodromorum, with angina, and general collapse and asthenia.

Diphtheria commences in the fauces, and may extend to portions of the adjacent mucous membrane

The diphtheritic exudate grows out of the submucous tissue, piercing the mucous membrane, which bleeds if the exudate be removed; the exudate, after passing through a stage of low

Croup, on the contrary, during *dry* winds; in this section, northwest and west winds.

Croup commences suddenly, with signs of turgor and synocha.

Croup localizes itself in the respiratory membrane.

The product of croup is exuded *upon* the mucous membrane, which, if the exudate be removed, appears injected or œdematous; it is amorphous, and gradually dissolves in pus.

* Up to the 1st of April, 1876.

organization, dissolves, finally, in gangrenous mortification.

The *fœtor oris* in diphtheria is strong and specific.

In diphtheria neuroparalysis is the result of an intoxication of the blood, which attacks the central life of the nerves. The amount of the exudate does not seem to have any influence upon its development, as there are cases on record in which this exudation was very trifling and even wanting, and yet paretic symptoms, even death, in consequence of paralysis of the heart, have been observed to take place.

It is in croup, for a dull smell, indifferent, and only to a finer smell appears empyreumatical.

In croup neuroparalysis is the result of an exhaustion of local innervation, in consequence of excessive secretion of the diseased mucous membrane.

Ztschr. f. hom. Klin., 18, 57, 1869; Villers. *Raue's Record*, 1, 147.

b. In diphtheritis the submucous tissue is affected, besides the mucous membrane.

In diphtheritis the surface looks gangrenous and ulcerated after the removal of the exudate.

Diphtheritis is a destructive, gangrenous disease.

Diphtheritis is mostly epidemic.

Diphtheritis attacks adults as well as children.

Diphtheritis is favored by uncleanness, squalor, crowded dwellings, in short, by everything which promotes the origin or growth of fungi or spores.

Diphtheritis is the local expression of a general disease, of an intoxication of the blood, caused by miasmatic influences, and may produce death as well by local as by general causes.

Diphtheritis is contagious.

In croup only the mucous membrane.

In croup, on the contrary, the mucous membrane remains smooth and whole.

Croup is a plastic disease.

Croup is mostly sporadic.

Croup mostly children.

Croup is occasioned more by climatic influences.

Croup is a local disease, which may kill by paralysis of the nerves of the larynx or by asphyxia.

Croup is not.

Ztschr. f. hom. Klin., 18, 153; Hirschel.

3. Often the *local* affection is not in proportion, at least apparently, to the *general* disease; now the former, now the latter, is much more violent than one would expect. Seemingly very slight cases prove fatal, or are succeeded by severe or long-lasting after-diseases.

4. When the diphtheritic process reaches the larynx, the cough will assume the croup tone, hence the name "diphtheritic croup;" but as a wrong name may lead to a wrong understanding of the

disease, and, possibly, to a wrong treatment, it is best to abandon the name "croup" entirely, and call the disease "laryngitis diphtheritica." Croup and diphtheritis are so entirely different in their nature, that they cannot exist together in one patient. Croup could never come to diphtheritis, as a plastic disease cannot attack an asthenic patient; but diphtheritis may, possibly, come to croup, but if so, the diphtheritic fungi would find such favorable conditions for their growth, that very few hours would suffice to have croup entirely changed into diphtheritis.

5. We may suspect diphtheritis, although we see no exudate, when a patient, with sore throat, feels very sick generally and unusually weak. The fever may be very slight, even in dangerous cases. Fœtor oris is not always present.

6. Our main object should always be to treat with *internal, specific* remedies the *general* disease, the intoxication of the blood, of which the exudation in the throat is merely the *local* expression and consequence, not its cause; the external treatment should be of secondary consideration (*Allg. h. Ztg.*, 89, 46; Lorbacher).

7. In our opinion the genetic difference of cases and the complications, caused by different constitutions, are too little, frequently not at all, taken into account in selecting the remedy (*Allg. h. Ztg.*, 91, 125; Goullon). Many do not even attempt to individualize, although this is strictly required in homœopathy.

8. Local cauterization, with Argent. nitr. and other like substances, is, happily, condemned even by many *allopathic* physicians as useless and even dangerous; likewise the forcible removal of the exudate has been abandoned as a torturous and injurious process. On the other hand, nobody should neglect a gentle cleansing of the affected parts, or the local application of the internal remedy, provided it is used in such a diluted form that only its dynamical, not its chemical, action is called in requisition.

9. Diphtheritic patients should be made to take a sufficient amount of nourishing, easily digested food; often, also, alcoholic drinks, to prevent exhaustion and paralysis.

10. When, in a case, several remedies have been given successively and unsuccessfully before the right one, we have always mentioned them in order to give the treatment as complete as

possible, and to show that drugs, considered infallible, proved ineffectual.

11. *There is not one single remedy which has been highly praised, but what some one has found utterly useless.* We must mention this, because *we have left out entirely all negative results*; therefore the reader will please keep this in mind when reading any of the following excerpts. For example, we will note only the following. Payr, in Wuerzburg, Bavaria, writes: "Merc. hydrocyan., Brom., Sulph. acid., Nitr. acid., Muriat. acid., Iod., and Kal. bichrom. were of no avail until the epidemic had begun to decrease, eight patients dying out of ten (*Allg. h. Ztg.*, 80, 73). The same may be said even of the inhalations of Carbol. acidum (*Allg. h. Ztg.*, 91, 124)."

THE FOLLOWING ARE THE REMEDIES USED AND RECOMMENDED IN DIPHTHERITIS, FOLLOWED BY A *General Résumé*:

I. ALCOHOL.

12. Grauvogl recommends the external use of brandy, or equal parts of alcohol and water, in order to destroy the fungi. If the gargling is too painful the patient may take a mouthful hourly, afterwards less frequently, and hold the head backward for a few minutes. Should the œsophagus be affected small quantities may be slowly swallowed. The alcohol should be kept in the mouth till it causes smarting. The most extensive fungous growth is often diminished one-half in a few hours. This treatment should be continued until the last vestige of the fungi has disappeared. In very severe cases, however, this mode of application is insufficient, especially when hoarseness is present; then inhalations of alcohol must be used, diluted with water or not, according to circumstances. They should be prolonged each time till smarting is produced—a sign of their effect. After every inhalation the pain in the larynx, the hoarseness, and the dyspnœa are diminished. The same treatment is required when the fungous growth has spread into the choanæ or nose. With children the alcohol may be applied by means of a small water-color brush. Gargling with diluted alcohol is the best prophylacticum (*Allg. h. Ztg.*, 74, 202; *Rauc's Therap.*, 122).

13. We order at once to touch up hourly most spots in the throat with alcohol by means of a small brush. If the patient is able we let him gargle with a liquid, composed of one large spoonful of water and 5 drops of alcohol. Internally we give Merc. sol., 3 (1 : 99), 0.05 in 3 ounces of water ; one spoonful every two hours. As prophylacticum I order after every meal a little brandy or claret. Pursuing this treatment I have not lost a case, whilst the allopathic physicians lost a great many (*Allg. h. Ztg.*, 77, 1 ; Zwingenberg).

14. We use in connection with the medicine hourly gargling with diluted alcohol ; it shortens the disease materially (*Allg. h. Ztg.*, 78, 81 ; Sybel. See No. 24).

15. It has proven an excellent adjuvant to gargle with diluted alcohol ; with small children to touch up the diphtheritic spots with it, and where the larynx was affected to use inhalations. This is easily accomplished by a cup of diluted alcohol heated to boiling, over which the child is held for ten minutes every two hours. Light cases of diphtheritis in grown people are cured quickly without medicine by merely gargling with diluted alcohol (*Allg. h. Ztg.*, 79, 15 ; Heinrich).

16. Two cases of severe diphtheritis had a very satisfactory course under the internal use of Mercury and the external application of alcohol by means of a brush. As, however, the benefit from the former seemed very doubtful the next light case was treated only with gargling with diluted alcohol ; it ran equally as favorably. Three other cases which came afterwards under treatment recovered under the exclusive use of gargling (*Ztschr. f. h. Klinik*, 18, 53 ; K.).

17. Bolle has seen the same happy results from the external use of alcohol (*Popul. h. Ztg.*, 1868, No. 12).

18. Delicate girl, ten years old, subject to throat affections, and always quickly prostrated ; diphtheritis. Acon., Bry., Kal. bichr. unsuccessful. On the fourth day, patient rapidly growing worse, pulse 140 ; weak ; prostration extreme ; somnolence ; and occasional starting up and trying to leave the bed ; the membrane has invaded every visible part of the throat ; the case looks very unfavorable. Arsen. 2, and gargling with diluted brandy (15 drops to a tablespoonful of water), both every hour. In five and

a half hours decided improvement. The patient was delighted with the gargle, as it gave her great relief every time she used it. She had begun to expectorate bloody mucus and shreds of lymph in considerable quantities. Four days later the patient was well (*N. E. Med. Gaz.*, 4, 69; Hoffendahl).

19. Boy of six years. After several days of sickness with fever the patient appeared very sick and prostrated. One mass of membrane extended over both tonsils, the uvula, and visible part of the pharynx. Ars. 2, and gargling with diluted brandy, every hour. After a few hours the membrane began to loosen. Recovery four days later (*Ibidem*, page 73).

20. We have applied the same treatment in a case of scarlatina, accompanied by severe sore throat, with gray-colored, ashy deposits covering both tonsils. The sore throat begun on the second day of the eruption, and there was considerable glandular swelling and great prostration; and as the patient, a boy of eight years, was of a highly scrofulous diathesis, the symptoms were altogether alarming. Weak brandy and water were used as the gargle, and proved very grateful to him. The relief was immediate, and his improvement rapid. The swelling of the glands diminished, and in two days the deposit was entirely removed from the tonsils. This method is well worthy of trial (*Ibidem*, page 74; I. T. Talbot).

Résumé.

In the above we have the testimony of nine physicians (see No. 23) in favor of the external use of diluted alcohol or brandy. We ourselves have used alcohol with the same good result, also whisky or rum, whichever happened to be at hand; we dilute so that the mixture still causes a bearable smarting. Mild cases are materially shortened by the use of diluted alcohol alone without any medicine (see No. 15).

Alcohol has this advantage over all other substances, recommended externally against diphtheritis, that, being non-medicinal, it allows the use of any homœopathic remedy, high or low, and is still one of the most powerful destroyers of any fungous growth. Besides, *where it is desirable, the internal remedy can be dissolved in it for external use.* It can be used as a gargle or in the form of spray

by means of a toilet spray-producer, or as steam, or applied with a brush.

II. ALUMEN.

21. A weak solution of Alum. is recommended externally by Houard (*Hahnem. Monthly*, 10, 359).

III. AMMON. CARB.

22. Obstruction of the nose; the moment he falls asleep, he is aroused by want of breath (*Raue's Therap.*, 120).

IV. APIS MELLIFICA.

23. During a malignant, very infectious, epidemic Ap. 3 was sufficient in most cases; in severe ones, however, Ars. and Chin. ars. was necessary; moreover inhalations of diluted alcohol, as recommended by Grauvogl, were used in all cases with good results. Under this treatment only six children under three years died out of forty patients, and with these the disease had spread to the larynx. The disease had its crisis generally on the fifth day; severe cases, however, not until the fourteenth day. Apis, in connection with gargling or inhalations, operated as a prophylacticum (*Allg. h. Ztg.*, 78, 103; Neuschaefer).

24. With Apis 4-6, better results were obtained than with Arsen. and Brom., as long as the diphtheritis was not of a septic nature, nor had extended to the larynx (*Allg. h. Ztg.*, 78, 75; Sybel). Since we use externally diluted alcohol every hour the disease is materially shortened (*Ibidem*, page 81).

25. Apis has proved useful in several light cases, when the diphtheritic exudation was preceded by violent fever, headache, especially pain in the back of the head and neck, and a cutting pain in the abdomen. A sign of its favorable operation is a light perspiration after twenty-four hours' administration (*Allg. h. Ztg.*, 89, 44; Lorbacher).

26. Great debility from the beginning; the membrane assumes at once a dirty, grayish color; there is puffiness around the eyes; pain in the ears when swallowing; an itchy, stinging eruption on the skin; a sensation of weakness in the larynx; numbness of the feet and hands, and even paralysis. (Never does good either before or after *Rhus tox.*) (*Raue's Therap.*, 119.)

27. Great debility characterizes the case even from the onset; absence of thirst; scantiness of urine; the membrane has a dirty-gray color; the pulse is very quick, at least 140; puffiness about the eyes; an eruption appears upon the skin, which itches and stings (Guernsey's *Obstetrics*, 945).

28. Boy of fifteen years. The whole of the fauces covered with diphtheritic exudate, and already one-half of the uvula destroyed. Ap. 3 every two hours; painting with a solution of 1 part alcohol and 2 parts water three times a day. Recovery in four days (*Allg. h. Ztg.*, 78, 103; Neuschaefer).

29. Boy of ten years. Both tonsils almost entirely covered with exudate. Apis every two hours, and diluted alcohol externally every hour. The superficial exudate removed in twenty-four hours; the more imbedded in three days. Two other cases in the same family recovered equally as quick (*Allg. h. Ztg.*, 78, 81; Sybel).

30. A girl of four years suffered several days since from sore throat, fever, and general indisposition, at a time when several malignant and fatal cases of diphtheritis happened. During the following two days the whole fauces were filled up with diphtheritic exudate, some membranes also showed themselves in the mouth, and especially on the lips and corners of the mouth; easily bleeding of the affected parts; violent fœtor oris; a yellowish, very offensive-smelling secretion from both nostrils; considerable swelling of the submaxillary and lymphatic glands of the neck; the general condition becoming worse and worse; not much complaint in swallowing. Ap. 3, every two hours, 3 drops; injections with diluted claret; externally warm poultices. Recovery in about fourteen days (*Allg. h. Ztg.*, 79, 19; Polle).

31. Boy of nine years. Diphtheritis after the eruption of scarlatina; slight bleeding of the affected parts; offensive smell from mouth and nose; yellowish and offensive-smelling secretion from the nose; glands of the neck much swollen; swallowing comparatively little painful; general condition of the patient very serious; violent fever; very great thirst; constant delirium. Ap. 3, every two hours, 3 drops; externally warm poultices; painting of the exudate with diluted alcohol (1:4), and injections of it in the nose. Two days later the favorable effect of the treatment

apparent, and five days later the removal of the exudate; after which the affected parts showed deep cavities (*Ibidem*).

32. Three mild cases of diphtheritis were cured in five days under the same treatment (*Ibidem*).

Résumé.

Apis has been used or recommended: 1, in lighter cases, especially when preceded by much fever, headache, pain in back of head and neck (23, 25, 32); 2, in severe cases, as long as they are not of a decidedly septic character (24, 28, 29, 31); 3, when there is great debility from the onset, puffiness about the eyes; itchy eruptions, etc. (26, 27); high fever (25, 27).

In No. 30 the recovery was too slow to be convincing.

Apis may be particularly serviceable, when diphtheritis appears during scarlet fever (31).

Apis should be left off, when the disease spreads to the larynx (24).

There seems to be a greater discrepancy in the quality of the different preparations of Apis than of any other medicine. Physicians have often found one preparation useless, but another very effective, and have drawn attention to this fact.

Indications for the selection of Apis are the following* symptoms: "Violent inflammation of the throat; much dryness, burning, stinging, roughness; sensation of fulness; contraction and suffocation in the throat; difficult swallowing; tonsils very much swollen; throat swollen inward and outward; marked prostration and depression; nervous restlessness; itchy eruptions of the skin; oversensitiveness of the skin to touch; much fever."

Because one physician has found Apis of no benefit in diphtheritis of the larynx, it does not follow, that it will be thus in *all* cases, as we cannot expect *one* drug to be the *only* remedy for this disease. If we take into account the following symptoms: "Voice grew hoarse; breathing and swallowing very difficult; difficulty of swallowing not caused by the swelling of the throat, but by the irritation of the epiglottis; sensation as of a rapid swelling of the lining membrane of the air-passages; rough voice; speaking

* The following quotations are taken from Allen's Encyclopedia of Pure Materia Medica.

painful; hoarse cough; intense sensation of suffocation, could bear nothing about the throat; hurried, difficult respiration; labored inspiration as in croup, etc.;" we see no reason why it should be neglected in such cases.

Although there is no case on record where Apis has cured a paralysis, yet it has the following paralytic symptoms: "Crawling as if going to sleep in both arms; very distinct sensation of numbness in the fingers; *lower limbs feel paralyzed; weakness of sight, etc.*" This we mention, because a *true* remedy against diphtheritis should also have a paralytic effect upon the system to correspond to the totality of the disease.

V. ARSEN. ALB.

33. In several, not very severe, cases Mercur. sol. did not stop the inflammation of palate and fauces, and a rather thick grayish-white exudate would not disappear; no fetor oris, no swelling of the submaxillary glands, no salivation; the fever threatened to become adynamic. In such cases repeated doses of Ars., 2d trit. (1:9), proved beneficial. Perhaps it might be used successfully also in severe cases, where gangrene of the mucous membrane threatens, and there is salivation, adynamic fever, and prostration (Hirsch. *Ztschr. f. h. Klin.*, 13, 142; Trinks).

34. Arsen. 6 (1:9), four to five drops hourly, is—besides the external use of alcohol—the chief remedy against gangrene of the affected parts; frequently it has to be used from eight to ten days. The use of alcohol alone is not sufficient to prevent the gangrenous destruction; neither is the sole use of Arsen. sufficient to destroy the mould. Both have to be used together (*Allg. h. Ztg.*, 74, 202 (and Raue's *Therap.*, 123); Grauvogl).

35. Arsen. 3d or 4th dil. (1:9), every two or three hours, is specific against diphtheritis; with a stronger solution I paint the throat (internally), after having it swabbed with cold water. Diphtheritis of the larynx is mostly fatal, and requires other remedies (Hirsch. *Ztschr. f. h. Klin.*, 17, 5; Sorge).

36. In the non-malignant diphtheritis Arsen. 3 and frequent swabbing with fresh water have always rendered good service (Kafka's *Therap.*, 1, 433).

37. Great restlessness; constant desire for cold drink, taking

but little at a time; or better by drinking hot water; all symptoms worse about midnight (Raué's *Therap.*, 120).

38. The membrane is dry-looking and wrinkled, and may cover the entire fauces; very fetid breath; great dysphagia; very great prostration; the child wants water often, but in small quantities; great restlessness, particularly after midnight; warm drinks are sometimes desired instead of cold (Guernsey's *Obstetr.*, 945).

39. Bakody used Arsen. 3-6 with such excellent result in the genuine and scarlatinous diphtheritis, that he lost none out of twenty-two cases (*Internat. Homœop. Presse*, 6, 585).

40. Boy of 12 years. Bell., Merc., Apis, ineffectual. Very violent fetor oris; in the throat a thick, dirty-looking exudate, between whose cracks a discolored liquid oozed out; dysphagia; violent thirst; weak, small pulse; sunken face; sticky perspiration; abdomen extended; constipation. Arsen. 8, afterwards in alternation with Nux, removed the danger in four days (*Allg. h. Ztg.*, 64, 108; Fielitz).

41. Two girls of 14 and 29 years. Diphtheritis; all remedies which had been used, ineffectual. On the fourth day the burning pain extended into the stomach. They live and sleep in a moist kitchen. Very painful swallowing; rapid collapse. Arsen. 30 every two hours. The next night sleep, the following day no fever, and the burning pain only trifling. Quick recovery (*Allg. h. Ztg.*, 78, 14; A. R.).

42. A one-year old girl had pneumonia crouposa of the left lower lobe, which terminated in an abscess. A cavern the size of a goose's egg could be proved. There was present very great anæmia, great prostration, and obstinate exhausting diarrhœa. Finally diphtheritis appeared. The entire fauces were covered with a thick web-like exudate; swallowing became impossible on account of paralysis of the muscles of the throat; drink came out through the nose and caused violent coughing. The child could breathe only with the mouth wide open. Its mother succeeded in its taking, during six or eight days, small quantities of milk, while lying on its back *with the mouth wide open and the tongue perfectly still*. The throat was swabbed every hour with fresh water. Ars. 3, two teaspoonfuls every two hours. This child,

though given up by every consulting physician, recovered completely (Kafka's *Therap.*, 1, 433).

Résumé.

Arsen. is recommended and used when the fever becomes adynamic (33, 40), when there is great prostration or collapse (18, 19, 33, 38, 40, 41, 42), great restlessness (37, 38), great thirst, constant desire for small quantities of drink (37, 38, 40), gangrene (33, 34), fetid breath (38, 40), dysphagia (38, 40, 41, 42). Besides these symptoms, the following are mentioned in the cases: Sticky perspiration and abdomen extended (40); burning pain extended into the stomach (41); exhausting diarrhœa and great anæmia (42); somnolence and occasional starting up and trying to leave the bed (18). (The dysphagia seems to be caused more by paralysis than by swelling of the affected parts.)

We wish to draw attention to the following: 1. Almost all the general remarks (33, 34, 35, 36, 37) and the cases (40, 42) belong to the *earlier* literature on diphtheritis (till 1869); there is nothing of any consequence since then regarding this remedy. 2. Trinks (33) speaks of its use only in not very severe cases, Kafka (36) in non-malignant, and they use it, even then, quite low. 3. Grauvogl (34) recommends Arsen. *not without* the external use of alcohol, Arsen. alone being insufficient. 4. Sorge (35) considers Arsen., low, specific in diphtheritis, but not without a still lower dilution externally. These physicians seem to depend as much on the fungus-destroying as on the dynamic power of Arsen. Trinks does not speak of applying it externally, but he gives it so strong ($\frac{1}{100}$ gr.) that the mere swallowing cannot help having a *local* effect.

It follows from all this: 1. That Arsen. is not the remedy for diphtheritis with a severe inflammation of the throat and its accompanying symptoms. 2. That the dynamical influence of Arsen., even on the gangrene of the throat, is very insufficient, as all physicians lay great stress on the *external* treatment, *i. e.*, on the *direct* destruction of the fungi. 3. That its sphere of action is *only* in a *later* stage of the disease, especially when the abovementioned group of symptoms prevails. It is, therefore, not a principal diphtheritis remedy, and has not been used much,

since the attention has been drawn to such as Mercur. hydroc., Carbol. ac., and Salicyl. acidum.

Arsen. is not the remedy for diphtheritis of the larynx (35).

VI. ARSEN. JODAT.

43. Girl, æt. 5, scrofulous. Sickly from birth; asthmatic; croupy symptoms prominent; hoarse cough; diphtheritic deposit covering mouth from fauces to outer edge of lips, and also covering external auditory canal; short, difficult respiration; pulse weak, slow; great prostration; bad odor from patient. Arsen. jod., 1st trit., cured (*Hahnemannian Monthly*, February, 1874, p. 297; *Raue's Record*, 6, 86; F. Bigelow).

N. B.—This preparation of Arsen. may deserve more attention; the same may be said of *Arsen. hydrobrom.*

VII. ARUM TRIPH.

44. Constitutional symptoms of diphtheria with congested throat; it will often cut short the disease (*Hahnemannian Monthly*, March, 1874, p. 358; *Raue's Record*, 6, 86; W. R. Childs).

VIII. BAPTISIA TINCTORIA.

45. Oppressed breathing unto suffocation, because of pulmonary congestion. Rising in bed does not relieve; the patient must go to the window for fresh air (*Raue's Therap.*, 120).

46. The cases in which Baptisia is indicated seem to be those where there is little pain. Sensation of great fulness, œdematous swelling of the affected parts, especially affection of the posterior opening of the nose, little pain or soreness of the fauces, characterize the most dangerous form of diphtheritis (*Ohio Med. and Surg. Reporter*, 1, 144).

IX. BELLADONNA.

47. Belladonna is in its place only if the diphtheritis commences with high fever and severe inflammation of the tonsils and fauces, but not after the exudate has appeared (*Bæhr's Therap.*, 1, 328).

48. In an institution for orphan girls, diphtheritic sore throat prevailed with and without exudation. The disease distinguished

itself by high fever, headache, debility, bright-red swelling of the fauces, often thin, yellowish exudate. Bellad. 30, cured quickly (*Ztschr. f. h. Klin.*, 14, 155; C. Wesselhœft).

49. The patient is restless, complains of sore throat; the fauces look highly inflamed; the pupils are enlarged; he feels drowsy, and yet unable to fall asleep; starts suddenly out of sleep (Raue's *Therap.*, 119).

50. Hughes affirms that Belladonna is frequently the specific remedy even in severe cases, and that the treatment can be always commenced with it, but that it should not be continued if there is no decided improvement after twenty-four hours, or if the symptoms return after they have left (*Allg. h. Ztg.*, 84, 152).

51. When the patient finds the disease coming on quickly, is afraid she will choke to death, and knows she will not get well, will not lie down for fear of choking, Belladonna will relieve promptly, but will not complete the cure alone (*Hahnem. Monthly*, Aug. 1872, p. 16, and Raue's *Record*, 3, 119; W. McGeorge).

52. The inflammation of the tonsils and fauces might induce one to select Belladonna in the very beginning of the disease, but it would not have the least influence upon the course of the diphtheritis (*Allg. h. Ztg.*, 89, 44; Lorbacher).

53. The throat has a highly inflamed appearance; is very red and shining; drowsiness; the eyes are very much injected; the face is flushed; there is throbbing of the carotids; the pulse is very rapid; the child complains occasionally of chilliness; great difficulty in swallowing, with pain running up into the ear (Guernsey's *Obstet.*, 946).

Résumé.

Belladonna is in its place only in the beginning of the disease, when there is very severe inflammation, or in very mild cases; but it is inferior in every respect to Apis, which takes here its place. (See *Résumé* to Apis.)

X. BROMIUM.

54. Bromium is recommended by Black against the malignant forms. Great weakness and lassitude after all other symptoms have passed off is a symptom of Bromium, and also a characteristic one of diphtheritis (Bæhr's *Therap.*, 1, 329).

55. The beneficial influence of Brom. 1 (1 : 9), 12 drops to 6 ounces of water every one or two hours, one tablespoonful, shows itself in this wise, that the salivation becomes less and the exudate decreases. But as there may be cases where the disease may spread to the larynx, although there is not much exudate in the fauces, we use Brom. 1 (1 : 9), 20 drops to 1 ounce of Glycerin, also externally. In order to keep the larynx free from the disease we blow 1 or 2 grs. of Kal. hydrobrom. 1, in the mouth during an inspiration (Hirsch, *Ztschr. f. h. Klin.*, 11, 189; Mayhoffer).

56. *The nature and character of diphtheritis and croup are so completely and entirely different that the remedies of one disease cannot be those of the other* (see 2, a and b), (*Ztschr. f. h. Klin.*, 18, 57; Villers).

57. Brom. and Chlor. have the power to destroy miasm. With their vapor the air can be purified and epidemics prevented. A few drops of a solution of either will prevent infection from diphtheritis, and we have saved whole families from it by ordering each member to take Brom. water (daily 10–12 drops in sugar water). A whole boarding-school, close to a diphtheritic hospital, was saved by fumigations with Brom. A remedy which destroys the origin of a disease, must be important also in its treatment (*Allg. h. Ztg.*, 79, 8; Ozanan).

58. Brom. water is made by dissolving 1 drop of Brom. in 25–50 gram. of water, and is given in drop-doses every hour, so that $\frac{1}{2}$ –2 gram. of the solution are consumed in twenty-four hours. Or one may use fumigations or inhalations of Brom. Brom. water is poured into boiling water; a funnel of paper or glass is inverted over it, and the whole put before the patient for inhalation. Only four or five cases of croup died out of 150 cases of croup and diphtheritis treated in this way (*Allg. h. Ztg.*, 79, 14; Ozanan).

59. The field for Brom. is the pseudo-membrane, and it operates in most cases favorably, *but has no influence on the gangrenous process* (*Ibid.*, 79, 28; Ozanan).

60. Diphtheritis begins in the larynx and comes upwards, with hoarse and croupy cough, fearful pulse; all the symptoms dangerous (Raue's *Record*, 2, 73).

61. In cases where the membrane forms back, almost over the larynx, I have found it very serviceable in my own case, removing

husky tone of voice in a few hours. Brom. has preference for the *left* side of throat also, and stiffness of neck sometimes accompanies it (*Ibid.*, 4, 85).

62. When the disease commences in the larynx and comes up into the fauces, and in some cases in which it runs down into the larynx and produces a croupy cough, with much rattling of mucus. In either case there is rattling of mucus in the larynx on coughing, and the cough has a croupy sound (Guernsey's *Obstet.*, 946).

63. We have treated successfully 21 cases of diphtheritis with Brom. Of these 4 were light, 2 complicated with scarlatina; in 1 the disease had spread to the larynx, and the rest were mostly malignant. We poured 2-3 drops of the 2d or 3d dil. (1 : 9) in half a glass of water, and gave one tablespoonful every one, two, or three hours. No external treatment. The operation of the medicine was even in neglected cases quick, and the convalescence required only a few days *after* the removal of the exudate. Brom. is indicated in all cases where a croupous inflammation is formed by the exuberant growth of the fungi. It is the only remedy in diphtheritis of the larynx (*Internat. h. Presse*, 6, 591; Balogh).

64. Funkel (allopath) used Brom. only externally in three cases of diphtheritis. After the first application the fetor oris disappeared. On the following day the ulcers were perfectly clear, and healed quickly by the external use of Arg. nitr. (!) (*Ibid.*, 6, 592).

65. Man of 28 years. Violent diphtheritis these two days. The tonsils and the back part of the fauces completely covered with firm, thick exudate; pulse 120; weakness. Cauterizing with Arg. nitr. for three days useless. Lemon-juice externally for one day useless. Faintings; face ashy-gray; cheeks sunken; pulse very soft. Brom., 3 drops to 200 gram. in water; every hour one tablespoonful; improvement already by evening; a quieter night. The next day freer expectoration. Three days later the membrane came off in large pieces and formed again, but thinner and smaller; pulse 110. Recovery from the diphtheritis five days later. The subsequent paralysis removed in four months (*Allg. h. Ztg.*, 59, 14; Ozanan).

66. Stout girl of 5 years. Diphtheritis since yesterday. Both tonsils completely covered by exudate; face red; skin burning hot; pulse 148; 5 drops Brom. water (see 58) to 150 gram. water,

and 30 gram. sugar syrup; hourly one tablespoonful. The next night better; pulse 122. On the fifth day only little exudate. Relapse on account of mistake in diet. Recovery on the ninth day (*Ibid.*, 79, 21; Ozanan).

67. Girl of 13 years. Diphtheritis since yesterday; pulse 140. Right tonsil completely covered with thick exudate. Feeling of suffocation; skin hot; vomiting twice. Brom. water 1 dr. every two hours. The next day worse; then slow improvement. The sixth day cough, with croup-tone and hoarseness; pulse 120. Expectoration of much thick mucus, and of a piece of membrane one centimetre broad and one and a half centimetres long. Still larger pieces thrown out during the next two days. Diphtheritis removed on the twelfth day. Complete recovery several days later (*Ibid.*).

68. Boy of 5 years. Scarletina, and on the ninth day diphtheritis. On the third day of the diphtheritis Brom. water 20 dr. to 150 gram. sugar water. The next two days no change. On the eighth day removal of the exudate (*Ibid.*).

69. Boy of 3 years; diphtheritis since yesterday; Brom. water; cured in four days. *Ibidem.*

70. Man of 25 years; diphtheritis; Brom. water; the next day worse; faintings and vomiting; pulse small, 60; the exudate more extended; Brom. continued; the following day better. Cured two days later (*Allg. h. Ztg.*, 79, 28; Ozanan).

71. The wife and two children of a diphtheritis patient took Brom. water as a prophylacticum. The children had a slight attack of it, the mother not. *Ibidem.*

72. Man of 65 years; middling severe case of diphtheritis; Brom. water from the beginning of the disease. Cured in seven days (*Allg. h. Ztg.*, 79, 38; Ozanan).

73. Man of 37 years; on the third day very violent diphtheritis; pulse 120; Brom. and Bell.; the two following days the same condition. On the seventh day the right tonsil swollen very much; pain very severe; Brom. continued. On the eleventh day the abscess opened. On the sixteenth day no more exudate visible. In the same house eleven other persons, adults and children, taken with diphtheritis and cured by Brom, but a child of 16 months died of diphtheritis of the larynx. *Ibidem.*

74. Man of 48 years. In spite of Acon., Bellad., Apis, and

Laches., each taken one day, the diphtheritis made rapid progress. A large part of the velum, the whole uvula, and both tonsils, covered with exudate; fœtor oris; hoarseness; rough, dry, cough; dyspnœa; quick, weaker-growing pulse. Brom., 3, 4 dr. to half a glass of water, one spoonful every two hours. Decided improvement by evening, which continued during the following days, but the exudate remained unchanged. 1 dr. undiluted Carbol. acid. to 1 glass of water, for gargling every hour, removed the exudate in about ten hours (*Allg. h. Zig.*, 85, 4; Hirsch).

Résumé.

Ozanan, the strongest advocate of Brom., does not seem to be clear in his own mind, because, without giving any special indications for this medicine, he considers it the *sole* remedy against diphtheritis, and at the same time says in another place (59): "The field for Brom. is the pseudo-membrane, but it has no influence on the gangrenous process," which means, in other words, "The field for Brom. is croup, but it has no influence on diphtheritis" (see 2 *b*, diphtheritis is a destructive, gangrenous disease). It is, therefore, not strange that his cases are not remarkable recoveries, viz., in the 1st case (65) (the best recovery of all), it required eight days to remove the exudate; in the 2d, the exudate not quite removed in five days; in 3d (67), the next day after Brom., patient worse, then slow improvement, exudate removed not until the twelfth day of treatment; in 4th (68), no change for two days after Brom.; 5th case insufficiently related; in 6th (70), worse the next day after Brom.; in 7th (72), Brom. from the *beginning* of a *medium* case, cured in seven days; in the 8th (73), the next two days after Brom., no change. Such cases are no proof in favor of Brom., but just the opposite. They are not worth the printing, because, when a medicine is the *right* one, it operates *at once*, and the recovery is *quick*, no "next day worse," or "no change for two days." In No. 74 Brom., not answering to the totality of the disease, was unable to remove the exudate, but Carb. acid. did it in ten hours; on the contrary, Brom. removed the exudate quickly in No. 64, because it was given in the former case in the 3d dil. internally (dynamically insufficient); in the latter, used quite strong externally (chemical action).

Balogh (63) does not mention a most important item, *i. e.*, the number of days it required to remove the exudate. His statement is not of much weight, because the requirements of a medicine by some physicians (like Ozanan) are very moderate. The same may be said of Mayhoffer (55), but as he used the remedy also externally, he secured the chemical (fungus-destroying) power of Brom., and may have thus obtained a better success.

Nos. 60 and 61 are very indefinite. Brom. is here recommended when the disease commences on the very lowest part of the fauces, spreading upwards, which is contrary to the usual beginning.

Guernsey (62) might just as well have expressed himself briefly thus in diphtheritis of the larynx with much rattling. Ozanan and Balogh also consider Brom. the remedy for diphtheritis of the larynx.

When Baehr wrote his *Therapeia*, very little had been written on the treatment of diphtheritis; this explains his meagre remark (54).

Ozanan's misgivings that Brom. is a remedy for croup, but not for diphtheritis, is fully affirmed by Villers (56).

In No. 71 Brom., as a prophylacticum, proved useless in two cases out of three.

The use of Brom. in diphtheritis rests on these three points: 1, that it destroys fungous growth; 2, that diphtheritis, when spreading to the larynx, produces symptoms similar to croup (croupy cough, hoarseness, difficult, croupy breathing); and 3, that Brom. is an important croup remedy. To reason from this that it is also a great remedy against diphtheritis of the fauces or larynx, is a wrong conclusion. If diphtheritis and croup are two entirely different diseases in their nature and character (2 *a* and *b*), Brom., being a chief croup remedy, cannot at the same time be a great diphtheritis remedy, because a drug has not only to cover the symptoms, but must likewise correspond to the character of the disease. How can one and the same remedy answer to a sthenic and an asthenic disease, to a plastic disease and one whose tendency from the onset is decay, exhaustion, paralysis? Do we give Bellad. for headache in the full-blooded and robust, and also in the bloodless and feeble?

We shall speak of the fungus-destroying power of a medicine in the General Résumé after the remedies, as we cannot repeat in the Résumé of each drug, of a like nature, what we have to say on this point.

XI. BRYONIA ALBA.

75. We have used Bryon. tinct., 1 dr. every two hours, in two cases of diphtheritis, in which the fever was slight, the throat complaints insignificant, and the general condition of the patient little disturbed. The recovery required in one case ten, in the other fourteen days (!) (Hirsch. *Ztschr. f. h. Klin.*, 11, 189; Mayhoffer).

76. The patient is quickly prostrated, shuns all motion, and complains on moving, or when being moved, of pain everywhere; white tongue; feeling of dryness in the mouth, without particular thirst or desire for large quantities of water (Raué's *Therap.*, 119).

XII. CALCAREA CHLORATA.

Chloride of lime.

77. R. Hughes in his account of fifty cases, after canvassing the claims of the various remedies, finally comes to the conclusion that our most hopeful outlook is in the direction of such antiseptics as the Permanganate of potash and Chloride of lime. We have defended the employment of this remedy on a higher ground than as a mere antiseptic. We have prescribed it frequently, because it best answered the whole pathological state as well as the symptomatology of these cases. During five years not a single case of diphtheritis was lost, although some of the cases were of the most dangerous character. Chloride of lime was used both internally and locally. Internally I dissolved from 8–20 dr. in half a glass of water, one spoonful every half to two hours. Previous to giving this solution internally, I used a gargle containing 1 teaspoonful of Liq. calc. chlorin. to two-thirds of a glass of water. I only used the gargle where there was a great amount of diphtheritic deposit. It removed the membrane rapidly. The disease commenced with a feeling of general indisposition, soreness of the throat, throat and fauces highly inflamed, tonsils swollen, loss of appetite, fever, and restlessness at night. These symptoms,

after twenty-four or thirty-six hours, were followed by complete prostration; the throat and fauces covered by a rapidly spreading membrane, extending up into the nose, causing complete obstruction, discharging a sanious ichor; excessive fœtor oris; the glands of the neck *enormously swollen*; *complete loss of appetite*; great pallor; nausea; vomiting; more or less diarrhœa. Under the action of Chlor. of lime, the dangerous symptoms would disappear sometimes in two or three days, though sometimes they would last from ten to twenty days before convalescence. Out of nearly one hundred cases I lost only two, and these were diphtheritis of the larynx (*Am. Journ. of Hom. M. M.*, 7, 452; C. Neidhard). (A shorter, similar notice by the same physician is found, *N. E. Med. Gaz.*, 2, 280.)

Résumé.

As Brom. and Iod. are chief remedies in croup, and as Chlorine is very intimately allied to both, it follows that it likewise is an important croup medicine, and will have, though not as yet used, a like definite place assigned as Iod., Brom., and Spong. But as croup and diphtheritis are entirely different in their nature and character, it further follows that Chlorine, like Brom. and Iod., cannot be a *homœopathic* remedy against diphtheritis. The result obtained is not due to its dynamic effect, but to its fungus-destroying power (see *Résumé to Brom. and General Résumé*).

XIII. CAMPHORA.

78. Camph. has been used by some allopathic and undoubtedly also by homœopathic physicians, but it is strange that no mention is made of it in homœopathic literature, especially as a disease like diphtheritis would offer frequent occasion for its use. The following symptoms call strongly for its administration: Great prostration and weakness, almost to faintness; great exhaustion; faintness, shivering, and numbness; fainting; collapse, etc.

It may be given either in the usual way, or, still better, as spray from the 1st or 2d dil., by means of a common toilet atomizer.

XIV. CANTHARIS.

79. Too copious or difficult urination; the urine contains shreds

or coats of uriferous tubuli; extreme prostration, sinking, death-like turns; irritable-looking rash upon the skin or shining through the epidermis (Raue's *Therap.*, 120).

80. There is marked disturbance of the urinary organs; frequent desire to urinate, with burning and cutting pain; the membrane appears in patches upon the posterior wall of the throat, with burning in the throat (Guernsey's *Obstet.*, 946).

81. Diphtheritis, with great burning in throat, accompanied by a scraping sensation, so that, when expectorating, blood was brought up (*Hahnem. Monthly*, March, 1874, p. 358; Raue's *Record*, 6, 86).

N.B.—The principal sensation in the throat is *burning* pain, *burning* soreness.

XV. CAPSICUM.

When, if a description can be given, the throat smarts as if from cayenne pepper; the diphtheritic deposit covers a considerable portion of the fauces. There is a sensation of constriction on swallowing (Guernsey's *Obstet.*, 946).

XVI. CARBOLICUM ACIDUM.

82. Carbol. acid has not yet failed as a prophylactic. Carbol. acid, 1 grain to 1 ounce of water, every two hours half a teaspoonful, has a favorable influence on the fungous growth, less upon the fever and the other complaints (*Allg. h. Ztg.*, 80, 83; Lutz).

83. Carbol. acid has not yet failed, even in malignant cases, but Apis, Arsen., Brom., and Merc. hydrocyan. have. In light cases I give Carbol. acid, 3 (1 : 99), 12 dr. to 120 gram. water, every two hours one spoonful, and for little children, who can not gargle, I order the mouth and fauces to be painted several times a day with a solution of 8–10 drops of the tincture to one glass of water. Those who can, should gargle with it every hour. Under this treatment the difficulty and pain in swallowing are removed within forty-eight hours, in most cases and after some days the exudation commences to come off, and the whole process is finished in eight or nine days. In malignant cases I give a lower dilution, and more frequently (every half to one hour). I also order inhalations with Siegel's apparatus three or four times

a day, and well covered cold water-pack around the neck. I have received cases from the allopathic treatment, which were near death on account of threatened asphyxia, and out of danger after three or four inhalations (*Allg. h. Ztg.*, 89, 202; Davidson).

84. Carbol. acid 6 was a sure prophylacticum. If the remedy is administered in the 3d dil., as soon as the disease breaks out, recovery takes place in three days (*Allg. h. Ztg.*, 91, 44; Gigliano).

85. My experience in the last years regarding the use of Carbol. acid is very favorable. The severer the case, the more satisfactory have been the results. I use it only externally, therefore difficult swallowing is no contraindication. My atomizer is the usual toilet spray-producer. I fill the bottle with a solution of Carbol. acid (2 grains to 6 ounces of water, for children weaker), and rinse with it the whole affected part every one or half an hour. There is enough of it absorbed to secure the dynamical effect of this great remedy. It is unnecessary to relate any case, as they resemble each other more or less. Since I used this drug, the after diseases have been much less frequent. Whether the fungi are the cause or the consequence, Carbol. acid proves its disinfecting power. *Weak solutions operate better than strong ones.* Sometimes seventy-two hours pass by before improvement commences, but I continue the treatment as long as the patient is no worse, and just this perseverance has obtained success, where even collapse threatened (*Allg. h. Ztg.*, 91, 93; S. Lilienthal). I confess that I lost my cases where the larynx was affected (*Hahn., Monthl.*, 11, 267; Lilienthal).

86. Bæhr has used the last two years nothing but Carbol. acid; out of twenty-eight cases he lost none. He has counted here only such cases where the exudate was imbedded in the mucous membrane, and foetor oris present. He gave Carbol. acid, 1-3, 2-3 dr. in water every two to three hours, and before each dose he swabbed the affected parts with diluted alcohol. (*Internat. Hom. Presse*, 6, 581, and *Allg. h. Ztg.*, 87, 140).

87. See No. 47. All symptoms were improved by Brom., only the exudate remained unchanged, but disappeared in about ten hours after the external use of Carbol. acid (*Allg. h. Ztg.*, 85, 4; Hirsch).

88. Girl, living in a very small and bad tenement. On the

second day of the disease the entire fauces covered with exudate, glands of the neck swollen, aphony, crouplike cough, fetid discharge from the nose, violent fever, pulse 130. Carbol. acid; improvement not until four days later, and recovery nine days later (*Allg. h. Ztg.*, 87, 140; Bæhr).

89. Child. For twenty-four hours diphtheritis; ulcer of about half inch diameter in the left side of the throat. Carbol. acid. Worse on the second day. On third day the whole throat filled up with membranes; on fourth day ichor run out of mouth and nose in lying; the exudate reached forward to the teeth. On fifth day the exudate was thrown out, but formed again as a thin coat; on seventh day only a little of it was left, on the eighth day only a little reddish ulcer; on the ninth day child went outdoors (*Ibidem*).

90. Girl. Very large swelling outside on the neck. Carbol. acid. Also in this case the disease grew worse till the fifth, and had subsided on the seventh day so far that the ulcers were clean. On ninth day child went outdoors (*Ibidem*). Another severer case had a very similar course.

91. Child. Merc. hydrocyan. unsuccessfully for three days. Carbol. acid 1, 2 dr., to one glass of water, every two hours one dose. The next day better in every respect, recovery two days later (*Allg. h. Ztg.*, 91, 44; Gigliano). In many other cases, also in malignant ones, the same result.

92. A pregnant, syphilitic woman. Violent fever, tonsils very much swollen, fauces intensely red, tongue coated white. Belladonna. Scarlatina. Inflammation of the throat worse. Tonsils and fauces covered with thick membranes. Mucous membrane of the nose severely affected; submaxillary glands very much swollen, and hard; very profuse salivation; tongue very much swollen; scarcely able to open the jaws; swallowing, even of liquids, almost impossible. Nitr. acid ineffectual. Carbol. acid, 2, 2 dr., in water every two hours; for gargling or rinsing, a 2% solution of Carbol. acid. Improvement; recovery. (*Ztschr. f. h. Klin.*, 24, 135; Mossa).

Résumé.

After reading the above regarding this drug, one might think it the panacea for diphtheritis, and that there could be no more

death from this disease, but—remember what has been said in No. 11.

We have very little to sum up, because 83, 84, 85, and 86 are sweeping assertions without any special indications for the selection of the remedy, as homœopathy requires. We shall speak of this one-remedy doctoring in the General Résumé, as we cannot repeat our remarks on this subject in the Résumé of each remedy thus abused.

Regarding Nos. 88, 89, and 90, we refer the reader to what has already been said of the cases 65–73, in the Résumé under Bromium. They are not remarkable cures, especially, when we take into account that Alcohol was also used externally.

We will not consider case 92, as there is no mention how soon the improvement begun, nor how many days the recovery required.

In No. 91, no symptom is given to furnish any indication for the selection of the drug.

Consequently, out of all the above material, only 82 and 87, about four lines in all, are of any practical use. It is this: 1. Carbol. acid has a favorable influence on the fungous growth, less upon the fever and other complaints. This hits the truth quite near. 2. It removed the exudate very quickly after Brom. had improved the other symptoms, the fungi excepted.

Carbol. acid has the power of destroying all fungous and parasitic growth, and also of causing paralysis, but it does not produce a highly inflammatory state of the throat; even the pain is not severe, especially if we exclude those symptoms which appear immediately after taking the drug, caused by its local (chemical) effect. Consequently it is not homœopathic to a diphtheritis with severe inflammation and pain in the throat, accompanied by high fever (beginning of many cases), but is indicated after the inflammation and pain have partly subsided, and the exudate been deposited, especially when the following symptoms are present: *great languor; weakness; great prostration; general soreness; drowsiness; chilliness; cold perspiration; dizziness; headache; especially in the forehead, or through the temples, as if from a tight band around the forehead; affection of the mucous membrane of the nose; face pale; loss of appetite; nausea; weak pulse, etc.*

Some have found it useful in diphtheritis of the larynx, others not. We wish to draw particular attention to Lillenthal's remark, that *weak solutions operate better than strong ones.*

XVII. CHINA.

93. As soon as the diphtheritic process is ended, it is advisable to order at once a strengthening diet and the use of China 3; as the great loss of strength, and the anæmia require immediate reparation (Kafka's *Therap.*, 1, 434).

XVIII. CHININUM ARSENICOSUM.

94. We have seen surprising results from Chinin. ars. 3, in the malignant angina during scarlatina. The rapidly developing paleness of the skin, the quick exhaustion, and the fast destruction of the mucous membrane of the fauces drew our attention to this remedy. We gave it every two or three hours, and swabbed the fauces every hour with fresh water (Kafka's *Therap.*, 1, 433).

95. Since I use Chinin. ars., I have not lost another case of diphtheritis, although I have treated several hundred patients. The favorable results I had with it in diphtheritis during scarlatina, induced me to prescribe it also in the genuine diphtheritis, of which we had an epidemic of a year's duration. I have often treated from three to five members of the same family, simultaneously or successively, and always with rapid success. In all cases there were present fœtor oris, swelling of the submaxillary glands, frequently also of the parotides, violent fever, and great prostration, besides the characteristic signs on the tonsils and palate. I gave mostly the 1st centesimal trit., 1 grain every two hours, seldom the 2d trit.; the 1st trit. was decidedly more effective than the 2d trit., which was sufficient only in milder cases and with little children. It required generally twenty-four hours to see an evident improvement of the accompanying symptoms, but not of the exudate, which remained the same. In several cases improvement took place, not until after forty-eight hours or even after a longer use of Chin. ars. In two cases of malignant scarlatina of young people, the diphtheritis was not cured until

after a fourteen days' use of Chin. ars., 1st trit. During the administration of this remedy the diphtheritis very seldom spread to the larynx, still no case was cured by it after the larynx had already been affected. I had two such cases (*Allg. h. Ztg.*, 87, 113, and 196; Findeisen).

96. A slender girl of 20 years. Blackish exudate, very extended; hoarseness; febris putrida; great weakness; head confused; anxiety; delirium at night; difficult swallowing; very strong fœtor oris; tongue and skin dry; pulse 130. Apis, painting and inhalations with alcohol ineffectual. Chin. ars. improved soon. Recovery (*Allg. h. Ztg.*, 78, 103; Neuschaefer).

97. A stout girl of 10 years. Severe diphtheritis. On the third day, Chin. ars. 1 (1 : 99), 1 gr. every two hours. Two days later there was the following condition: strong fœtor oris; the submaxillary glands very much swollen and painful; breathing through the mouth because the nose was stopped up with purulent and bloody substance; corners of the nose excoriated; tongue coated thick and brown; both tonsils covered with a gray exudate; on the right tonsil a bloody ulcer with uneven edges, which corresponded to the size of a membrane just retched out; the lower half of the uvula gangrenous, the upper half covered with exudate: the entire posterior wall of the fauces completely covered with exudate; swallowing of liquids very difficult; great weakness; sleeplessness; pulse small, very frequent. Chin. ars., 1st decimal trit. (1 : 9), 2 centigr. every hour. Two days later the condition much the same, no worse; exudate a trifle less. The same prescription continued. Two days later, considerable improvement; same prescription continued. Two days later, recovery (*Allg. h. Ztg.*, 87, 204; Findeisen).

Résumé.

Only three physicians have used Chin. ars., and two of them recommend it, when the following symptoms are present: paleness (anæmia), rapid exhaustion, quick destruction of the mucous membrane (94); fœtor oris, swelling of the submaxillary glands and parotides, violent fever, great prostration (95).

As we have no proving of this drug (except a short and insufficient one) to guide us in its selection, its use has been only empiri-

cally. It is, however, impossible to conjecture correctly the operations of Chin. ars. from those of Chinin. sulph. and Arsen., as we know from chemistry that the properties of a combination (salt) are different from those of its constituents. Still experience in the homœopathic practice has taught us that the properties of the base vastly predominate over those of the acid. For instance, Calc. carb., acet., and phosph. are not so different from each other in their operations, but what we can give frequently one in place of the other. While between Phosphate of Lime, Iron, Mercur., Quinine, etc., there is such an entire difference, that not even the thought of giving one in place of the other would ever enter our mind. According to this experience the operations of Chinin. would excessively predominate over those of Arsen.

Chinin. and Arsen. have great power of destroying fungi, and Chin. ars. 1st *decimal* trit. (1 : 9) *every hour*, is such an immense dose that it could not help acting locally (97). As the 2d trit. was useless, and as, after giving the 1st trit., the improvement begun by a slight decrease of the exudate, we are inclined to think that the recovery was due more to its involuntary local application (swallowing) than to its dynamic influence. Most homœopathic physicians would have rather changed the remedy than gone still lower in the scale, as the 2d trit. is low enough, especially of a drug poisonous as this.

Chin. ars. did not always prevent the disease from spreading to the larynx, and never cured after it had spread.

We do not think much of any case where the writer neglects to state how soon the improvement commenced, and how many days the recovery required. This part of the history of a case is of as much consequence as the symptoms, or any other important part (96).

XIX. CHLORUM.

98. Aqua chlori, as undiluted as possible, has a favorable effect upon the diphtheritic process, but is very disagreeable on account of its bad taste (*All. h. Ztg.*, 80, 83; Lutz).

XX. CHROMICUM ACIDUM.

99. Ozanan considers Chromic. acid. a great specific against diphtheritis of the fauces and larynx, even when the parts be-

come gangrenous, as it produces a very similar disease (Hirsch. *Ztschr. f. h. Klin.*, 19, 144).

100. Chrom. acid. (1 to 4 parts of water), externally, could not stop the local process in three severe cases, and did not prevent death (*Allg. h. Ztg.*, 80, 83; Lutz).

XXI. CONIUM MACULATUM.

101. Five cases were cured by Conium, three of which were after scarlatina. In one of the latter cases (a girl of 4 years) the urine turbid, after standing, dirty *gray*, with a little yellowish tint; condition worse nights, somnolence, with constant waking and change of position; sawing, snoring breathing; exudation dirty-grayish. Con. 30 every three hours. Recovery in five days (*Allg. h. Ztg.*, 82, 4; Kunkel).

XXII. CROTON TIGLIUM.

102. Croton tigl., as indicated in cases of diphtheritis characterized by not much, if any hoarseness, not much difficulty in swallowing, excessive exhaustion, perhaps coming on with alarming suddenness (*Med. Invest.*, 10, 149; Williamson. *Raue's Record*, 5, 112).

XXIII. FERRUM SESQUICHLORATUM.

103. Ferr. sesquichl. is used externally by some, merely to destroy the fungi; no special indications.

XXIV. GELSEMINUM SEMPERVIR.

104 *a*. Local tingling of parts during the fever; incipient paralysis or anæsthesia; defective or impaired vision; objects appear a long way off, are seen double or inverted (*Raue's Therap.*, 120).

XXV. HYDRASTIS CANADENSIS.

104 *b*. In diphtheria the Hydrast. has been found of benefit. It corresponds to the debility which results from that disease, and to the local condition of the throat, when ulceration occurs. I am accustomed to use it as a gargle in all cases where ulceration is noticed. Dr. Logan says: "I have used Hydr. in ulceration of the mucous membrane with very satisfactory results. Three

years ago I treated over two hundred cases of diphtheria, using Hydr. as a gargle with good results." C. C. Smith reports the following case: The disease came on in the usual way. Under the use of Nitr. acid., Bellad., and Capsic., the throat was cured in a very short time, the false membrane clearing off nicely. But about the period when I was looking for the time to arrive when the patient (a girl of fourteen) should be well on the road to health, I was not a little surprised to discover the diphtheritic membrane forming in the left nostril and in the vagina, the former being completely plugged up. I at once administered this drug both externally and internally, in the 1st decimal dilution, 6 dr. to one-half tumbler of water, one spoonful every hour. Very soon the false membrane began to shrink up, and soon came away; the cure was rapid and complete (Hale's *New Rem.*, 2d edit., 574).

XXVI. IODIUM.

105. Iod. rendered excellent service in a case of diphtheritis. The velum palatinum and tonsils covered with thick, grayish-white exudate; much pain in throat, painful swallowing; salivation; strong foetor oris. The patient, a girl of 10 years, was scrofulous, and had had swollen submaxillary glands for several months. Iod. 3, every three hours. Three days later decided improvement. Recovery on the sixth day (Hirsch. *Ztschr. f. hom. Klin.*, 4, 180 and 187. Hirsch).

106. Boy of 4 years. Diphtheritis; Mercur.; cough with croup tone. Hep. and Iod. 3 ineffectual. Iod. 1, recovery (*Allg. h. Zig.*, 69, 180; Goldman).

N. B.—See what has been said in the *Résumé* under Brom.

XXVII. KALI BICHROMICUM.

107. Kal. bichr. is indicated in cases similar to Sulphur. acid., but the disease is deeper seated, commences in the fauces, and spreads to the larynx. The increased redness, and considerable sensitiveness of the still healthy parts of the mucous membrane of the mouth and fauces, is a characteristic indication for Kali bichrom., while a purplish paleness of the mucous membrane, and a moderate swelling of the affected parts, points to Nitric acidum. When the disease spreads to the larynx in cases where Kali bichr.

is indicated, we soon observe hoarseness with cough, which is at first rough and dry, but becomes loose after a few hours, and causes fits of choking in consequence of the tough expectoration. Although this remedy is very specific in such cases, still improvement takes place gradually, which proves the deep affection of the mucous membrane. Kal. bichrom. 6, 3 to 4 dr. to one-half glass of water, one spoonful every three to four hours (Hirsch. *Ztschr. f. hom. Klin.*, 17, 53; Hirsch).

108. The discharge from the nose is tough and stringy; pain in the left ear; swelling of the parotid glands; croupy cough; measles-like eruption; red, raw, shining tongue; deep-eating ulcers in the fauces (Raue's *Therap.*, 120).

109. The disease extends into the throat (and bronchia), producing a croupy cough, in paroxysms, with expectoration of viscid, tough mucus, which may be drawn out into long strings; tough and stringy discharge from the nostrils; pain in the left ear; swelling of the parotid and submaxillary glands; eruption upon the skin, which looks like that of measles; the tongue is red, raw, and shining (Guernsey's *Obstet.*, 946).

Résumé.

If the reader will delay its use till the often-mentioned indication for Kal. bichr. appears, viz., stringy, tough mucus, which may be drawn out into strings, he will lose many chances for using this drug successfully. It is indicated, where *the mucous membrane is deeply affected, and there is much ulceration; the mucus is frequently streaked with blood;* pain in the throat; painful, difficult swallowing; great weakness; cachectic look; swollen glands. Frequently the nose is also affected.

This remedy has not received sufficient attention.

It is recommended in diphtheritis of the larynx.

XXVIII. KALI CHLORICUM.

Kali hydrochloricum, Chlorate of Potassium (KO,ClO₆).

110. Girl of 11 years. In spite of Bell. 3, Nitr. ac. 6, and gargling with diluted alcohol, the diphtheritis made rapid progress, and presented a severe case. On the fourth day, pulse 120, bad

sleep, little appetite; the entire fauces filled with exudate; violent pain in the throat; strong fœtor oris; in the morning a fainting fit. Kal. chlor. 1 (1:99), one teaspoonful every hour; the same preparation for gargling every three hours. Improvement of the general condition and the appetite in a few hours; also the exudate a little less. Recovery soon. (*Internat. hom. Presse*, 3, 575; Goullon, Jr.) In *Allg. hom. Ztg.*, 78, 126, he recommends Kal. chlor. $\frac{1}{2}$ to 1 gramme to 50 grammes water, one teaspoonful every two to three hours.

XXIX. KALI HYDROBROMICUM.

Kalium bromatum, Bromide of Potassium.

111. Bromide of Pot. and Argent., in cases in which there is an anæsthesia of the roof of the mouth and fauces. (*Raue's Therap.*, 120.)

112. Lymphatic child of 8 years, disposed to frequent sore throats; Bell. 2, and Merc. subl. corr. 3, useless. On the third day, pulse 150, face very red, throat swollen; impossibility to move the head; the submaxillary glands, especially on the right side, very much swollen and painful; tonsils still more swollen, purple; tonsils and uvula covered with very thick exudate; a distinct, crooked line of demarcation between the healthy and affected part; mouth dry, hot; anxiety; excitement, alternating with comatose somnolence. Kali hydrobrom., 75 centigr. to 250 grammes of water, one spoonful every hour. Improvement by evening; a better night. The exudate removed in nine days. (*Allg. hom. Ztg.*, 73, 85; Noack.)

XXX. KALI HYDROJODICUM.

Kalium jodatatum. Iodide of Potassium.

113. Man of 38 years. Diphtheritis. On the second day of the disease, headache; general indisposition; languor and fever; fauces very red; uvula swollen and elongated; tonsils covered with exudate. Kal. hydrojod. 0.05 in 150 grammes water, to be used in twenty-four hours by the spoonful. Recovery in five or six days. (*Allg. hom. Ztg.*, 79, 62; Ozanan.)

114. A female. Rather light case of diphtheritis. Kal. hydrojod. Slow recovery. (*Ibidem.*)

115. Girl of 10 years. Diphtheritis. Chills; fever; pain in throat; pulse 135; skin hot; exudate on both tonsils. Kal. hydroj., 0.25 to 1 glass of sugar-water, one spoonful every hour. On the next day, the exudate thicker, skin less hot; the next two days, throat's symptoms and exudate worse. Kal. hydroj. 0.75. Improvement two days later; recovery on the ninth day. (*Ibidem.*)

N. B.—These three cases, certainly, do not encourage the use of this drug in diphtheritis.

XXXI. KALI PERMANGANICUM.

Permanganate of Potassium.

116. Useful in diphtheria with ulceration, and gangrenous suppuration with fetid odor. Dose, 1 gr. to 1 oz. of water; two teaspoonful doses. (*Hahneman. Monthly*, March, 1874, p. 357; W. R. Childs; *Raue's Record*, 6, 86.)

XXXII. KAOLIN.

117. Kaolin has been used by a few physicians, but always in alternation with other medicines. (*American Observer*, 1871, page 129, and *Raue's Record*, 3, 101.)

XXXIII. KREOSOTUM.

118. An eight-year old girl, whose two sisters were sick with a violent diphtheritis, was seized with fever, vomiting, loss of appetite, restless sleep, general languor, swelling of the glands; three days later, suddenly, very much exudate in the fauces. Nitr. ac. 2, internally, and 1 dil., externally. All symptoms much worse during the next three days; fœtor oris. Kreos. 3, internally and externally. Improvement in twelve hours. Recovery. (*Allg. hom. Ztg.*, 78, 83; Sybel.)

XXXIV. LACHESIS.

119. During an epidemical diphtheritis there were a great many cases, where the general symptoms were much severer, in comparison to the local symptoms, than one would suppose. Frequently the prostration was quite violent before any local symptoms could be discovered. The pulse slow, weak, small; perspir-

ation cold, clammy; fœtor oris. Here Laches. helped quickly. (*Allg. hom. Ztg.*, 70, 16; Dunham.)

120. The following pathogenetic symptoms of Laches. speak for its selection in diphtheritis: Lassitude, weakness, extremely painful swallowing, difficult speaking, ulcerated appearance of the mucous membrane of the fauces; pale redness of the fauces, white or yellowish exudate. Experience afterwards proved these symptoms to be indications for this drug. (Hirsch., *Zeitschr. für hom. Klinik*, 14, 155; C. Wesselhœft.)

121. In two cases the following symptoms were present: The subjective symptoms were much more prominent than the objective. The complaints, especially the swallowing, were much more violent than one would suppose from the extent of the disease. Sensation as if a foreign body was in the throat, with stinging extending into the ear; urgency to swallow, and desire to hawk up something, with attacks of choking; voice weak and hoarse. Cough caused pain in the throat, therefore, in the endeavor to restrain it, it sounded short and suppressed. Fever. After ineffectual use of Acon., Merc. sol., and Kal. bichr., Laches. 9, every three hours, improved very much in twenty-four hours, and cured in six to seven days. (Hirsch., *Zeitschr. f. hom. Klin.*, 17, 53; Hirsch.)

122. When, after Bellad., by next evening, there is no marked change for the better, or when the patient is even worse in the morning after some sleep, with a decided development of those skinny patches on the tonsils, worse on the left side; or when croupy symptoms appear, and the patient cannot bear anything touching his neck and throat. (Raue's *Therap.*, 119.)

123. Begins on the *left* side, with a tendency to extend to the right: Pulse 140 or 150; give one dose, and wait; in twelve hours there will be slight improvement, more in thirty-six hours, and much more in forty-eight hours. In one case, where the left tonsil was one complete black slough, the disease passing to the right, one dose cured. (Raue's *Record*, 2, 72; and *Hahnem. Monthly*, 5, 286; H. N. Guernsey.)

124. Sore throat, hurting patient to swallow, with great difficulty in swallowing; in bad cases, the fluid swallowed runs out through the nose; dislike to have throat touched or examined;

flushed face; quick pulse; breathing oppressed; membrane commences on *left* tonsil and pharynx, extending to uvula and right side. Laches. will remove the membrane in from twenty-four to thirty-six hours less time than Lycop. In cases where the membrane is just forming, will remove it in forty-eight hours. (Raue's *Record*, 4, 85, and *Hahnem. Monthly*, 1872, p. 16; W. McGeorge.)

125. When the disease first makes its appearance in the left side of the throat, and there remains or extends from thence to the right side, the throat very sensitive to touch or pressure. (Guernsey's *Obstet.*, 946.)

126. Boy of 8 years, brother of a two-years' old girl, violently sick with diphtheritis (see No. 213; cured by Sulph. ac.; Hirsch, 14, 142). Violent pain in throat, swollen tonsils, fever, heat. Bell. 6, for three days, ineffectual. Considerable exudate in the choanæ; in sneezing, a tough, skinny substance is blown out of the nose. Lach. 30, every three hours; slow recovery. (Hirsch., *Zeitschr. f. hom. Klin.*, 14, 142; C. Wesselhœft.)

127. A young, tall, active man, and with dark eyes and hair. Diphtheritis, two days; face sickly, pale; dark rings around the eyes; swallowing exceedingly painful; speaking difficult; weakness extraordinary; mucous membrane of the fauces pale red; white exudate on the tonsils and velum. The singular grouping of the exudate causes the affected parts to look like ulcers of the mucous membrane with white edges. Mind depressed. Several remedies ineffectual. Lach. 30, every three hours; improved by next day, and cured in three days. (Hirsch., *Zeitschr. f. hom. Klin.*, 14, 142; C. Wesselhœft.)

128. A girl of 9 months; diphtheritis; Bell., 30; worse two days later. Very difficult swallowing; complete aphonia; a wheezing, hissing sound, in place of the natural crying. Excessive weakness; lets the head hang; scarcely lifts the limbs. Fauces pale, covered with white exudate. Laches. 30, every three hours. Improved in twenty-four hours, and cured in five days (*Ibid.*, p. 149; C. Wesselhœft.)

129. Girl of 6 years; velum, tonsils, and posterior wall of fauces pale-red; on the left tonsil tough, yellowish-white exudate. Lach. 30, every three hours; cured in three days (*Ibid.*, p. 155; C. W.).

130. A boy of 6 years; epileptic, with thick head, pale, bloated look, and delicate constitution. For the last fourteen days the following condition: On the left side of throat several white, exudate spots; the mucous membrane pale-red; not much difficulty in swallowing; both parotids considerably swollen; pulse very frequent, hard; great apathy; somnolency; drooping eyelids. Several remedies ineffectual. Lach. 30, every three hours. Improved in twenty-four hours, and almost cured in forty-eight hours (*Ibid.*; C. W.).

131. An Irish family of eight children was attacked with malignant diphtheritis; three died under allopathic treatment. I was called to see three others who had been under the same treatment several days; found them as follows: 1. Girl of 8 years, throat greatly swollen internally and externally; discharge from the nose and mouth of an intensely fetid and excoriating fluid; fauces covered with diphtheritic membrane; pulse 110, small; extremities mottled and livid (scarlatina); swallowing was almost impossible. 2. Girl of 6 years, similar symptoms, but not so aggravated; fever considerable. 3. Boy of 4 years, with similar symptoms, has a dark rash on the body (scarlatina). The fetor from the patients was overpowering, as they were all in one room. Small hopes of recovery, owing to the filthy surrounding, insufficient food, and want of care. Laches. 10, every three hours. In three days the three children out of danger. The oldest girl commenced improving the next day. On the third day an abscess in the cellular tissue of the neck opened. A few days afterwards the two remaining children were attacked; they died on the third day under allopathic care (*Amer. Jour. of Hom. Mat. Med.*, 2, 184; E. M. Hale).

132. Boy of 8 years; sick five days; constant delirium, which *changes rapidly from one subject to another*; talks, sings, or whistles constantly; throat filled with membrane of a dark color, which was *developed from left to right*; has not slept for seventy-two hours, but during last twelve hours has occasionally fallen into a light sleep, which is *followed by aggravation of all symptoms*; badly smelling stools; urine high-colored and of strong smell; body covered with bluish-red eruption, which is round and elevated.

Laches. 4^m, one dose, cured in a few days (*Amer. Jour. of Hom. Mat. Med.*, 3, 40, Goodno; and Raue's *Record*, 2, 73).

133. Girl of 26 years; pulse 130; skin hot and dry; face very red; drowsy; muttering delirium; grayish membrane developed from left to right. Laches. 5^o; cured in forty-eight hours (*Ibid.*, p. 139).

Résumé.

None of the one-remedy doctors have used Lachesis. Others that have administered it, have found it indicated when the following symptoms were present:

The subjective symptoms much severer than the objective; violent pain in throat; extremely painful and difficult swallowing; difficult speaking; sensation of a foreign body in the throat, with stings extending into the ear; urgency to swallow, and desire to hawk up something, with choking spells; dislike to have the throat touched; pale redness of the fauces; exudate begins or is worse on left side; voice weak and hoarse; aphonia; cough causes pain; fætor oris; fetid discharge from mouth and nose; violent prostration even before the exudation; lassitude; weakness; pulse weak, small; perspiration cold, clammy; somnolency; delirium; symptoms worse after sleep.

In several cases the disease appeared during scarlatina. No. 130 is more of a subacute, slow nature.

XXXV. LACHNANTHES.

134. If the child has *a very stiff and painful neck, drawn to one side*, with diphtheria (*Guernsey's Obstet.*, 946).

XXXVI. LYCOPodium.

135. When the aspect of the fauces is rather of a brownish redness, worse on right side, and worse from swallowing *warm* drinks; when the nose is stopped up, and the patient cannot breathe with his mouth shut; he keeps his mouth constantly open, slightly projecting his tongue, which gives him a silly expression; the nostrils are widely dilated with every inspiration; on awakening out of a short nap he is awfully cross, kicks, and behaves naughtily, or he jumps up in bed, stares about and knows nobody,

seemingly dreaming with open eyes; frequent jerking of the lower limbs, mostly with a groan, awake or slumbering; great fear of being left alone (Raue's *Therap.*, 119).

135a. Boy of 7 years; membrane of a grayish color, developed from *right to left*; *stoppage of nose, with excoriating coryza*; *is unable to breathe through nose*; lies with mouth open and tongue protruded; headache in right side; constipation; fever; all symptoms *worse about 4 o'clock P.M.* Lyc. 2°, one dose cured (*Am. Jour. of Hom. Mat. Med.*, 3, 140; Goodno, and Raue's *Record*, 2, 73).

136. Girl of 10 years; patches of membrane on right tonsil, of a dirty-white color; *stoppage of nose, is unable to breathe through it*; headache; high fever; aching of the whole body. Lyc. 6^m, one dose cured (*Ibid.*).

137. Patient of 29 years; has had inflammation of the tonsils and fauces for four days; *much swelling and pain, amounting to spasm on swallowing*; white diphtheritic patches on the tonsils; constant desire to swallow, *accompanied by spasm, and violent, stinging pain*; rigors; rapid pulse; *swelling and pain most marked on the right side*; *fætor oris*. Lycop. 200; two doses, night and morning. Improvement after a few hours, and recovery without formation of pus or abscess (*Transact. of Amer. Instit.*, 1870, sec. 2, p. 252; C. Wesselhœft, and Raue's *Record*, 3, 101).

138. Girl of 20 years. Lach., Merc. sol. and bijod. useless. Diphtheritic membrane on tonsils and fauces much increased; fauces *are red* and covered with whitish patches; tickling, irritation, and stinging in the throat on going to sleep; followed, after coughing, by *smarting, burning, and throbbing*; *worse on the right side of throat and fauces*; nausea; loss of appetite; great weakness and depression; pulse 90, hard; considerable fætor oris. Lycop., 200; two doses produced an immediate improvement and recovery (*Ibid.*).

139. Membrane comes first on the *right side*, and if the formation is not stopped, goes to the left side; difficulty in breathing; in bad cases, fan-like motion of alæ nasi; speech indistinct, in some cases when the formation of membrane had gone on for some time; soporous condition and indifference to external surroundings and impatience on awakening. Given in cases where the

membrane is just forming, Lycop. will remove it in seventy-two hours “(!).” When fully formed it will sometimes take five days. The membrane is not so likely to form a second time on the *right* as on the *left* side. In one very severe case the membrane came twice on the right side and three times on the left (*Hahnemannian Monthly*, 1872, August, p. 16; W. McGeorge, and Raue's *Record*, 4, 85).

140. When it appears first on the right side, and from thence inclines to spread to the left, or it begins in the nose and extends down into the throat (Guernsey's *Obstet.*, 946).

Résumé.

In the above citations there has evidently been much copying, and we may safely say that probably only two physicians used Lycopodium.

The most prominent indications for Lycop. are the following: Worse on right side; stoppage of nose with excoriating coryza, and inability of breathing through the nose; much swelling and pain in throat, with spasms on swallowing, etc.

XXXVII. MERCURIUS.

Various preparations.

141. The mercurial preparations answer only to the complication with scarlatina, because they have no true relation to the diphtheritic process (*Allg. h. Ztg.*, 84, 152; Hughes).

142. As Iodium has a specific influence upon the croupous process, so has Mercurius upon the diphtheritic. We may succeed in curing non-malignant diphtheritis with Bellad., Apis, Muriat. acid., but it is done the quickest and surest with Mercurius. Merc. solub. 2 suffices in the non-malignant form, but the malignant requires Sublim., Præcip. rub., Merc. jod. flav., Merc. hydrocyan. Sublim. and Brom. in alternation when the larynx is affected (*Allg. h. Ztg.*, 79, 15; Heinrich).

XXXVIII. MERCUR. BIJOD. RUB.

143. Merc. bijod., two grains of the salt dissolved in one ounce of alcohol, every two hours, a small dose on pellets or sugar of milk, is my chief remedy in ordinary cases. In the more malig-

nant forms, where there is considerable fetor of the breath, and the symptoms decidedly adynamic, Merc. corrosiv. will be found preferable (*Amer. Jour. of Hom. Mat. Med.*, 9, 175; Joseph Hobson).

XXXIX. MERCUR. JODAT. FLAVUS.

Protoioduretum Mercurii.

144. Great difficulty in swallowing, with great pain in the throat; the salivary glands are very much swollen and painful; very offensive smell from the mouth, and fetid discharge from the fauces and nares; swelling of the cervical glands (Guernsey's *Obstet.*, 946).

145. Girl of 3½ years. Merc. and Arsen. ineffectual; the disease has spread to the larynx. Calc. sulphurata and Iod. for three days ineffectual; the disease worse. Aphonia; breathing very much impeded; the nostrils dilated with every respiration; the pit of the stomach drawn in at every inspiration; very weak murmur of respiration heard all over the chest, sometimes none at all; frequent violent spells of suffocation. Merc. jod. flav. 2 (1:9), five grains every hour, afterward less frequently. The next night better, steady improvement, recovery (Hirsch., *Ztschr. f. h. Klin.*, 17, 190; Sorge).

XL. MERCUR. BROMATUS.

146. I have used Bromide of Mercury in a few cases of diphtheria, with great painfulness of the inner throat, white deposit, and a dusky redness of the fauces and tonsils. It acts very satisfactorily in 3 dec. trit. (Hale's *Therapeutics*, 82).

XLI. MERCUR. HYDROCYANICUS.

147. The indication for its use is the presence of the exudate, which may be white, yellow, gray, or any shade between. The accompanying fever has the adynamic character, and the collapse shows itself in the commencement of the disease, therefore this drug should be used even before the exudation. Frequently the exudate is in places which cannot be seen. When an epidemic of diphtheritis prevails, administer it in every inflammation of the throat. Higher dilutions operate better than lower; I begun at

the 6th and have arrived at the 30th dil. (Hirsch., *Ztschr. f. h. Klin.*, 17, 162; Villers).

148. Villers treated, during ten years, over a hundred cases under three different latitudes (Dresden, St. Petersburg, and another city in Russia), and found that the disease was always the same, and that Merc. hydroc. was the only suitable and quickly operating drug. He did not lose a single case, but insists on using the 30th dil. It certainly should not be administered below the 6th (1 : 99) dil. After using this drug the further extent and degeneration of the exudate is stopped at once, the improvement is very striking even after twelve hours, after twenty-four hours no vestige of exudate is generally to be seen, and after two or three days the disease is so far removed, that the remedy is no longer necessary, as the patient is well. With the improvement of the local symptoms that of the others keeps pace; refreshing sleep and appetite appear already after a few hours, and strength comes rapidly. If the remedy is given in the stage of invasion, *i. e.*, before the exudate is deposited, it will not appear at all. As a prophylactic it is equally as effective. Paralysis and other after-diseases have not been observed after the use of this drug. Several physicians have never seen any result from Merc. hydrocyan., because they gave the 2d and 3d trit. or dil., which is much too strong, or rather not sufficiently developed (*Allg. h. Ztg.*, 88, 92, and *Internat. h. Presse*, 6, 425, 431, and 439).

149. A scrofulous boy of 7 years, in Dresden, Saxony. Merc. sol. ineffectual. Beginning of exhaustion. Arsen. On fifth day cough with croup tone; torpid character of the disease. Iod. As the collapse grows worse and worse, again Arsen. On the seventh day, extreme exhaustion; sawing breathing; adynamic fever; spasmodic cough when examining the fauces. On the left side of the velum, close to the uvula, loss of substance of about half an inch in diameter, surrounded by a narrow, intensely red rim, the color of which contrasts with the purple tint of neighboring membrane; the deficiency is filled with a slate-gray, soft substance, which hangs below the edge of the velum. A hopeless case. Merc. hydrocyan. 6 (1 : 99), one drop to half glass of water, one spoonful every two hours, three doses, afterwards three doses of Iod., then again three doses of Merc. hydr., etc., in alternation.

The next night quiet sleep, with diminishing attacks of coughing; no sawing breathing. On the next morning appetite and not the least vestige of the gangrene; general condition correspondingly better. Extraordinary quick recovery (Hirsch., *Ztschr. f. h. Klin.*, 17, 146; Beck and Villers). We did not hesitate to translate this case, although two remedies had been given in alternation; as Iod. was ineffectual before the last administration of Arsen., it is unlikely that it had any effect afterwards; therefore the cure was due entirely to Merc. hydrocyan.

150. Boy of 4 years, in Dresden. Lives in a bad cellar-tenement. One brother and sister have just died of diphtheritis without any treatment. Tonsils, velum palatinum, and fauces much swollen, dark-red, and thickly covered with exudate; great difficulty in swallowing; hoarse voice; rough, dry cough, with anxiety; skin hot and dry; pulse 130, small; great weakness, apathy, emaciation. Merc. hydrocyan. 6 (1:99), one drop to half glass of water, one spoonful every two hours; twenty-four hours later the swelling of the velum and fauces diminished one-half; the color of the mucous membrane almost natural; only a trifling vestige of the exudate; pulse 90; skin almost normal. The second night quiet sleep and appetite. On the third day his mother washed the floor, and on the fourth day the patient, poorly clad, sat on the window-stool, close to a frozen window. No relapse of diphtheritis, but laryngitis catarrhalis with violent fever, which Phosph. 30 cured (*Ibidem*, p. 156; Villers).

151. A man in the last stage of consumption, in St. Petersburg, Russia. Extreme emaciation and weakness, so that he can scarcely speak. For the last six days diphtheritis, for which an allopathic physician had prescribed, daily, several doses of Chin. sulphuricum. Skin like parchment, dry; extremities cool; liquid stools; the entire mouth and fauces covered with one mass of soft, grayish-green exudate, of which some portions could be easily removed, leaving an easily bleeding surface. Merc. hydroc. every two hours. After the first dose the diarrhœa checked; after the second dose quiet and refreshing sleep. After twenty-four hours the swallowing better; he feels better and looks better; mouth and fauces almost free from exudate. The usual tuberculose expectoration, which had stopped for several days, commenced again. One day

later mouth and fauces perfectly healthy ; strength is gaining. Ten days later he died of tuberculosis (*Ibidem* ; Villers).

152. A 3-year old, very sickly, scrofulous girl, of a scrofulous mother and an old, syphilitic father. On the fourth day of the diphtheritis the following condition : The child lay on its back, with hanging under jaw and half-closed eyes ; sopor, but when spoken to, easily roused ; mouth and fauces completely covered with whitish-gray exudate ; the dry lips bleed a little on opening the mouth ; nose stopped up ; swallowing impossible ; the patient can utter only a few croaking sounds ; emaciation and flabbiness of muscles ; extreme weakness ; skin hot and dry ; pulse excessively weak, and so fast that it cannot be counted ; urine scant, and darker than usual, without sediment ; no stool for the last two days. Prognosis very unfavorable. Acon. and Bell. ineffectual. Merc. hydrocyan. 30, three globules every two hours. Improvement begun after the fourth dose, in the night ; complete recovery on the fourth day, with the exception of weakness (Hirsch., *Ztschr. f. h. Klin.*, 17, 162 ; Villers).

153. A weak, irritable, anæmic, 11-years' old boy, living in a narrow, damp cellar-kitchen, also used as a wash-room. On the second day the entire mucous membrane of the mouth and fauces dark red and considerably swollen. On the left side of the velum palatinum a deep diphtheritic ulcer, with sharp-cut edges, surrounded by a ring of exudate ; on the mucous membrane many very small exudate patches ; the tip of the tongue dark red ; the papillæ filiformes much swollen ; the middle and back part of the tongue covered with a dirty-yellow coating ; swallowing exceedingly difficult ; face has an apathetic, anxious expression ; on the upper half of the body a profuse, viscous perspiration, which is cold on the forehead and cheek. Radial pulse on the right arm scarcely perceptible ; on the left, thread-like, 140. Extreme prostration ; no appetite. Merc. hydrocyan. 30, 1 dr. to a glass of water ; every two hours one spoonful. Quiet sleep in the second half of the following night ; next day, in the forenoon, good appetite ; in the afternoon no vestige of the exudate and of the coat on the tongue ; natural color of mucous membrane of the mouth and fauces ; pulse, 80, strong ; he feels well (*Allg. h. Ztg.*, 79, 102 ; Villers).

154. During an epidemic diphtheritis in a small city in France, thirty-two patients died out of forty under allopathic treatment. Under the treatment with Brom. Spong., and Tart. em., several cases also were lost, but after Merc. hydrocyan. arrived from Paris, no more fatal cases (*Allg. h. Ztg.*, 88, 70; Roguin).

155. A 4-year old girl; light case. Merc. hydroc.; recovery (*Allg. h. Ztg.*, 79, 136; Ganz).

156. A lady of 24 years, suffering since morning with severe sore throat; feels very weak; pulse 120; skin hot and dry; deglutition very painful; frequent pains, darting from throat to ear and head; tonsils greatly inflamed and enlarged. Ac. and Bell. 3. The next day fever somewhat diminished; tonsils less acutely inflamed, but much ulcerated; the ulcers deep, and many of them filled with a greenish-yellow pus. Mercur. cyanuret., 2 gr. to half a tumbler of water; two small spoonfuls every two hours. Next day much better in every respect; the following day recovery (*N. E. Med. Gaz.*, 6, 116; G. W. Richards).

157. A 10-year old boy had for several years chronic enlargement of tonsils; sore throat, with much febrile excitement; headache; restlessness; some pain in swallowing; tonsils very red, swollen, and covered with small, superficial ulcers. Merc. cyan. 1, 1 gr. to half a tumbler of water; one teaspoonful every two hours. Decidedly improved the next day, and cured the second. (*Ibidem.*)

Résumé.

When Villers's son (No. 149) was hopelessly sick, Beck recommended Merc. hydroc. as the only remedy which might be of use, because it had produced gangrene of the velum palatinum and fauces on five persons poisoned with this drug. The astonishing result led Villers to use it again and again, always with the same gratifying success; and we must admit that his are marvellous cures, but must add that others did not find it such a universal remedy (see No. 11). We have also practiced under three different latitudes, and neither lost a patient, but were obliged to use *various* remedies; probably others have had equally as good results.

We have no proving of this drug, can therefore not give any indications for its selection.

XLII. MERCUR. SOLUB., HAHNEM.

158. The success with Mercur. has not been very great, and could not be otherwise, as Mercur. lacks the excessive quick prostration and the entirely suspended action of the skin (Bæhr's *Therap.*, 1, 328).

159. Profuse salivation; profuse perspiration; offensive breath; swelling of the submaxillary glands (Guernsey's *Obstet.*, 946).

160. With a very few exceptions, we have experienced the best results with Mercurius sol. (*Allg. h. Ztg.*, 79, 177; Goeze).

161. An 8-year old boy. Headache; fever; vomiting; convulsions; unconsciousness, with somnolency; swelling of the right tonsil, with some whitish-gray, soft exudate. Merc. sol., 3d trit. Improvement the next morning, and return of consciousness. Recovery in a few days (*Allg. h. Ztg.*, 79, 177; Goeze).

See No. 13.

XLIII. MERCUR. SUBLIM. CORROS.

162. Merc. subl. corr., 2d or 3d trit., is the right medicine, when the exudate covers the entire fauces and extends into the nose, from which a profuse discharge flows (*Allg. h. Ztg.*, 85, 86; Dittrich).

XLIV. MURIATIS ACIDUM.

163. Mur. acid. is scarcely indicated in quick and violent cases, but will suit where there is not much fever, but great lassitude and weakness. It is necessary not to use the remedy too weak, but in the 1st or 2d dilution (Bæhr's *Therap.*, 1, 329).

164. The use of Muriat. acid. is founded more on its antiseptic property than on its pathogenetic symptoms (Hirsch., *Ztschr. f. h. Klin.*, 13, 141; Trinks).

165. Hughes asserts that our only remedy is Muriat. acid. wherever intoxication of the blood evidently exists, but that it is by no means particularly effective; that our most hopeful outlook is in the direction of such antiseptics as Kal. permang. and Calc. chloricum (*Allg. h. Ztg.*, 84, 152).

166. A boy of 15 years. After a five days' use of Bell. and Merc., the following symptoms: The patient hawks out continu-

ally tough, fetid phlegm; the voice hoarse, nasal; rattling of mucus; submaxillary glands swollen as large as hens' eggs; the head bent forward, because, when holding it erect, or when lying down, the phlegm in the fauces causes difficult breathing and choking spells. The entire back part of the fauces a gangrenous ulcer, covered with tough mucus, which draws out in strings; fœtor oris; swallowing of water very difficult, producing cough; pulse small, very fast; face pale, with a very anxious expression; spirits depressed. Mur. acid. 1 (1:9), 4 dr. in water every hour; externally, Mur. acid. dilut., half a drachm, to 1 ounce of Mel. rosar. Improvement in twelve hours; fœtor oris removed in twenty-four hours, the exudate in four days. Complete recovery in eight days (Hirsch., *Ztschr. f. h. Klin.*, 16, 92; Pernerl).

167. A young man of 17 years; scarlatina. On the third day tonsils and fauces covered with exudate; the submaxillary glands swollen as large as pigeons' eggs; can only hold the head bent forward; continual desire to hawk, with difficult spitting out of tough mucus; swallowing almost impossible. Bellad. ineffectual. Muriat. acid. 2, and externally the diluted acid. Improvement on the fifth day; the diphtheritis removed on the ninth day; the scarlatina in the stage of desquamation (Hirsch., *Ztschr. f. hom. Klin.*, 16, 101; Pernerl).

168. Of eight other cases, the mild ones were treated internally with Mur. acid. 1; the severe ones internally and externally; also warm, wet compresses. In all cases improvement begun after twelve hours; at the latest after twenty-four hours. The violent fever subsided; a general, alleviating perspiration appeared; sleep; the violent, congestive headache in the forehead diminished; the submaxillary glands became less painful; the swallowing better; the thirst lessened; appetite; the exudate disappeared at the latest in four days. Only in one case, a strong man of 40 years, the disease lasted almost fourteen days (*Ibidem*, Pernerl).

He used Mur. acid., because he once, when an allopathist, cured with it quickly a stomatitis with very similar symptoms. In another case Mur. acid. 1, internally and externally, proved ineffectual, and it was given alternately with Chin. ars. 3 (*Ibidem*, p. 131; Pernerl).

Résumé.

Three physicians speak discouragingly of the use of Mur. acid. in diphtheritis; only one physician used it in several cases; this was in 1867. Since then we do not find this drug mentioned in our literature.

Pemerl used the acid so strong externally that it had a local effect upon the fungous growth; whether it had, at the same time, a dynamical influence is difficult to tell. We may call No. 166 a fair cure, while No. 167 is not at all convincing.

The provings of the drug show no more similarity to diphtheritis than a hundred other remedies. We cannot find but one or two of the prominent symptoms, mentioned in Nos. 166 and 167, among the symptoms of Mur. acid. in Jahr's German *Symptomen Codex*, and should never think of selecting this drug for such a group of symptoms.

XLV. NATRUM MURIATICUM.

169. Swelling of the submaxillary glands and lymphatics; map tongue; burning in the throat; after application of caustics, especially Nitrate of Silver. (In different regions of Pennsylvania, a weak solution of table salt was used during the last epidemic as a gargle with great success) (Raue's *Therap.*, 120).

XLVI. NITRI ACIDUM.

170. The local symptoms of Nitri acid. resemble those of diphtheritis much more than those of Muriat. acid., and we see no reason why the latter has been preferred (Bæhr's *Therap.*, 1, 330).

171. Ulcers in the mouth; corroding discharge from the nose; intermitting pulse (Raue's *Therap.*, 120).

172. Nitr. acid. 2 or 3, three to four drops to half a glass of water, one spoonful every one or two hours, was of benefit, especially in those cases where yellowish-white or grayish spots showed themselves frequently to a great extent in the fauces, and occasionally on the inside of the cheeks. Often these spots became confluent, and formed a dirty, pearl-colored, dull-looking, pseudo-

membranous coating of the mucous membrane. Swallowing very difficult. If the exudate spreads to the larynx the respiration is difficult, and voice and cough hoarse; great thirst; the lips mostly pale, occasionally a little bloated. Frequently tough mucus flows from the corner of the mouth. This drug should receive particular attention, when children are attacked whose parents are syphilitic, or have taken much allopathic medicine (Hirsch., *Ztschr. f. h. Klinik*, 17, 52; Hirsch).

173. Nitr. acid. is suitable only in *sporadic* cases of diphtheritis when the following symptoms are present: The mucous membrane is covered with a thin, opaque, milky-white coat, as if it had been cauterized with nitrate of silver. The continuity of this exudate distinguishes it from that of the epidemic diphtheritis. The swallowing is very difficult and painful. In such cases Nitr. acid. removed quickly the local symptoms, after which one could get better at the severe affections of other organs, caused frequently by the overdosing with Calomel (Hirsch., *Ztschr. f. h. Klin.* 17, 162, and *Allg. h. Ztg.*, 79, 47; Villers).

174. In Weimar and neighborhood, a form of diphtheritis is not uncommon where there are *superficial* round ulcers. After the creamlike exudate has disappeared one sees a thin, hoop-like ring, which is the edge of the diphtheritic ulcer; the surface of the latter has also a different color from the surrounding membrane. This kind of ulcer is very characteristic for Nitr. acid. 3 to 6, but where the ulceration is deep, Hep., Merc. sol., and other preparations of Mercur. are indicated (*Allg. h. Ztg.*, 85, 84; Goullon, Jr.).

175. Nitr. acid. was of use only in the 1st and 2d dil. (*Allg. h. Ztg.*, 89, 44; Lorbacher).

176. A scrofulous, chlorotic girl of 12 years. Bell., Mercur. 6. The patient grows steadily worse. On the third day: The last night a bad one; great uneasiness and violent fever; fauces red and swollen; excessive salivation; swallowing exceedingly painful; fœtor oris. Nitr. acid. 3, four dr. to one ounce and a half of water, one dose every half hour, improved already by the middle of the afternoon; the next night good sleep; quick recovery (*Allg. h. Ztg.*, 74, 195; Goullon, Jr.).

177. A boy of 10 years, frequently subject to bleeding of the nose. The diphtheritis began with epistaxis. Apis ineffectual.

Apis in alternation with Kreos. 3, externally diluted alcohol, removed the fœtor oris, and improved the general condition within five days, but the exudate spread still more. Nitr. acid. 2, internally, and 1st dil., externally, improved in twenty-four hours; after forty-eight hours the whole exudate came off at once, and left a deep sore; loss of a portion of the velum palatinum. Appetite and strength better. Partial paralysis of velum palatinum and nervus opticus. The former difficult hearing much better (*Allg. h. Ztg.*, 78, 82; Sybel).

178. A 4-year old sister of a brother, violently sick with diphtheritis, received Apis as a prophylacticum in alternation with Acon. on account of fever; notwithstanding this treatment diphtheritis three days later. Nitr. acid. 2 internally, 1st dil. externally. Although the disease was not severe, yet it required from eight to fourteen days to remove the exudate (*Allg. h. Ztg.*, 78, 83; Sybel).

179. Female, just recovered from a very severe influenza of six weeks' duration. After a violent chill, sore throat; severe, pressing headache; great dulness, sleeplessness, general feeling of sickness; pain when swallowing; dryness in the throat; exudate; pulse 115. Scarcely twenty-four hours after the commencement of the disease violent attacks of dyspnœa and suffocation, during which blood and pus is thrown out. Despondency; pulse too slow and weak. Nitr. acid. 6, every two hours; four days later, removal of the local symptoms; appetite (*Hirsch., Ztschr. f. h. Klin.*, 24, 84; Goullon, Jr.).

180. Two girls. Ac. 2, Bell. 2, Merc. sol. 5, Merc. sol. 3, ineffectual. On the sixth day, the exudate very extended, dirty, discolored; excessive fœtor oris, profuse salivation, swollen submaxillary glands; drinks run out of the nose; bad nights; great despondency. Nitr. acid. 2, 6 drops to half glass of water, one spoonful every two hours. During the next twenty-four hours the disease neither better nor worse. The same prescription continued; the same medicine and preparation also externally as a gargle, every two hours. Decided improvement the next morning. Two days later the disease removed (*Internat. hom. Presse*, 5, 19; Billig).

Résumé.

Little harmony is between the general remarks 171 to 174.

Nitr. acid. is recommended by Villers (173) against *sporadic* diphtheritis, where the mucous membrane has the appearance of having been cauterized with Arg. nitr.; by Goullon (174) against *superficial* round ulcers; by Hirsch (172), and Villers (173), after syphilis or overdosing with Quicksilver, either in the patient or his parents.

The most prominent symptoms for which Nitr. acid. has been used are the following: *Swallowing very difficult and exceedingly painful*; excessive salivation; fauces and glands swollen; foetor oris; great uneasiness; violent fever.

No. 177 proves that the drug is also beneficial where the local affection is deepseated.

XLVII. PHOSPHORUS.

181. Phosphorus deserves consideration in the treatment of diphtheritis, especially where the adynamic character shows itself early, the strength fails rapidly, and paralysis of the heart threatens (Hirsch., *Ztschr. f. h. Klin.*, 13, 142; Trinks).

XLVIII. PHYTOLACCA DECANDRA AND OCTANDRA.

182. Dr. Burt says he has succeeded with Phytol. decand. in thirty-two out of thirty-four cases of diphtheria treated (Hale's *New Rem.*, second edit., 782).

183. *Phytol. octandra*, growing in great abundance all around this city (Sidney, Australia), but not indigenous. This is a most valuable plant, used either internally or externally. It is specific in diphtheria, given in decoction or infusion, applied very assiduously to the fauces as a gargle and used hot, and frequently repeated as a poultice to the throat; all stiffness disappears; the membranaceous formation is thrown off, and is not reproduced; perspiration follows; fever subsides; all aching, general pains, and headache disappear, and the patient eagerly seeks for food (*Ibidem*, 783, and *British Hom. Rev.*, 1865; Sherwin).

184. Miss B., æt. 20. Had a severe chill at night, with great pain in back of head, back, and limbs, followed with fever and

sore throat. Two days later, found her suffering very much, with great headache; worse in the back part; back and limbs aching fearfully; both tonsils very much swollen, and covered with a grayish pseudo-membrane; tongue very red at the tip, coated white; great prostration; cannot stand; if she rises up in bed, she immediately faints away; prognosis unfavorable. Phytol. decand., 4 dr. every hour, and a gargle of the same between. Morning, decided change for the better. Continued the same treatment for three days, when the false membrane came off, and the fifth day discharged her cured. The fever abated remarkable quickly (*Ibidem*, 779; Burt).

185. Mrs. B., æt. 31. November 16th, throat commenced to feel sore in the morning, followed by high fever all day; right tonsil very much swollen. At noon commenced to see white substance forming on the tonsil. I was called at 10 P.M., found the right tonsil covered completely with a white pseudo-membrane; fauces and soft palate very much inflamed; deglutition almost impossible; loss of appetite; great frontal headache; bowels moved every two hours, with severe pain in the umbilical region; great prostration; vertigo is so great that she cannot walk; pulse 127, soft. Phytol. decand., 4 dr. every hour, and a gargle of the same every hour, consisting of 50 dr. in a tumbler of water. 18th. Very much better, pulse 100; throat does not feel near as sore; false membrane beginning to come off; back and limbs ache but slightly; headache nearly gone; continued the same treatment three days; discharged her cured; the diarrhœa stopped the second day (*Ibidem*).

186. Miss H., æt. 25. December 3d, had a severe chill in the night, followed by high fever and sore throat. Acon. and Bell., all day; but continued to get worse. Midnight, I discovered patches of pseudo-membrane on the tonsils; she complained most bitterly of the back of her head and neck; back and limbs aching; pulse 120; bowels costive; loss of appetite. Phytol., 3 dr. every hour, with a gargle of the same between. 4th, noon. Feeling better; continued the same treatment. 5th. No fever; feeling quite well, but thinks her throat is more sore; both tonsils are swollen, and covered in patches with false membrane; continued the same treatment—giving 6 drops at a dose. 6th. Feeling a

great deal better; pseudo-membrane is off from the tonsils; continued same remedy every two hours for two days, when I discharged her cured. (*Ibidem.*)

187. Snyder, æt. 39. November 10th. Throat commenced to feel sore, with severe headache; back and limbs aching severely. 11th. Throat very sore; both tonsils covered with grayish pseudo-membrane, soft and swollen; palate and fauces violently inflamed; deglutition impossible; severe frontal headache; back and limbs aching severely; high fever; pulse 128; delirious at times; bowels costive; has not slept through the night. Fat salt pork around the neck, beef tea every two hours, and Phytol. every half hour, 4 drops at a dose, with a gargle of the same. 12th. Decided change for the better; pulse 98; head, back, and limbs do not ache as hard as they did yesterday; throat feeling very sore, but the false membrane does not seem to be spreading. Phytol., every hour. 13th. Feeling much better; pseudo-membrane commencing to fall off, leaving great holes in the tonsils that bleed a little; continued the same treatment. 14th. Pseudo-membrane all off; tonsils very much swollen, very red and ragged; continued Phytol., for three days every two hours, when I discharged him cured. I have given Phytol. in two cases of children and two in adults, where the pseudo-membrane was well formed (but there was not so much fever), with the same gratifying result. (*Ibidem.*)

188. Man, æt. 26. January 4th, 10 P.M. Slight pain in the left tonsil when swallowing; rested well till 2 A.M.; awoke with severe frontal headache; back and legs aching very hard, with high fever and sore throat; could not sleep any more. 8 A.M.: Pulse 120, very soft; head, back, and legs aching violently; throat very sore; left tonsil very much swollen, and covered with a grayish false membrane; right tonsil has patches of the pseudo-membrane on it; deglutition is almost impossible; great prostration; can stand up only a few moments at a time, it makes him so faint and dizzy. Phytol., 4 doses every hour, with a gargle of the same, consisting of 50 drops in a tumbler of water. 5th. Feeling very much better; fever nearly gone; head, back, and legs do not ache half as much as they did yesterday; pulse 100; throat is feeling very sore; left tonsil is very much swollen and still covered with the pseudo-membrane; the right one looks

very red, with small patches of membrane on it; deglutition almost impossible; continued treatment. 6th. Feeling much better; pseudo-membrane is off from both tonsils; they look very red, and the left is still swollen; no fever; slight appetite; continued treatment. 7th. Feeling quite well, but throat pains when swallowing; discharged cured. (*Ibidem*, 780.)

189. Mrs. G., æt. 21, nursing a babe. January 11th. Throat commenced to feel sore; had a very restless night. 12th. Slight headache, with a severe pain in back and legs; very chilly all the time; throat very sore; both tonsils very much swollen, and covered in patches with a dark-colored pseudo-membrane; deglutition very difficult; face very much flushed; great prostration; cannot sit up any, she is so faint and weak. Phytol., 4 drops every half hour, with a gargle of the same. 13th. Feeling very much better; back and legs do not ache any; throat is feeling very sore; tonsils very red and swollen, and covered in patches with the pseudo-membrane; deglutition is very painful. Continued same treatment once an hour. 14th. Feeling quite well; pseudo-membrane is off from both tonsils; there are large holes eaten into the tonsils; can swallow quite well; discharged her cured the next day. She nursed the babe all the while, but it did not take the disease. (*Ibidem*, 781.)

190. Miss K., æt. 9. December 12th. For the last two days has had a fever, with chills all the while; throat has been very sore, and is getting worse all the time; head, back, and legs are aching constantly; pulse 130; very weak and soft; soft palate and tonsils are violently inflamed and swollen; both tonsils are covered with grayish pseudo-membrane; cannot swallow anything; very weak; cannot sit up; has not eaten anything for two days; will not take any nourishment. Phytol., 2 drops every hour. Morning. Feeling a little better; pseudo-membrane about the same; continued treatment. Morning. Feeling quite well; false membrane is all off, but the throat is feeling very sore; discharged cured the next day. (*Ibidem*.)

191. Henry, æt. 4. For two days has had a little fever and sore throat; feels cold all the time; refuses to take food; both tonsils twice as large as they ought to be, and covered in patches with a whitish false membrane; pulse 118, very weak; he lies on

the lounge all the time. Phytol., 10 drops in a half tumbler of water. Cured in two days. (*Ibidem.*)

192. A young lad was taken with diphtheria, and treated by an old-school physician, and died. His sister, 28 years of age, was taken with it three days after, and treated by an eclectic, and died the fourth day. A young lady, who waited on them, was taken down with it four days after the death of the sister. Found her with a very sore throat, and the tonsils and soft palate covered with the false membrane, of a greenish color; both tonsils were twice as large as they ought to be; neck was very stiff; pulse 128; she was very much frightened, was sure she would die; hands and limbs trembled constantly. I tried to quiet her, and gave her Bellad. and Iod. of Merc. every hour in alternation. Morning. Found her very much worse; fever the same, and still trembling. I gave one dose of Acon., and then a gargle of a tincture from the green root of Phytol. every half hour, and gave internally about 6 drops of the same every hour. Remained with her through the day and all night. Morning. She was not so nervous, and the disease had not made any progress; continued the same treatment. Next day about the same; continued same treatment, but made it a little stronger. Morning. Decidedly better; the pseudo-membrane looks as if it would soon drop off; continued the same treatment. Morning. Feeling quite free from fever, and about a quarter of the membrane has come off; she has a fine, scarlet eruption all over the body and limbs, but more on the legs than on the body; urine is albuminous; continued the same treatment every two hours. Morning. The right tonsil is free from the membrane, but looks very raw, and burns a good deal; continued the same. Next morning, false membrane all gone; swelling has disappeared, excepting the left tonsil. Continued Phytol.; the case cured in a few days. (*Ibidem*, 782.)

193. The patient, in the room with a scarlatina patient, was taken sick. High fever, headache, etc.; not complaining of throat for two days, when the child's mother told me she complained of her throat; both sides covered with the membrane, with rash on the body. Stopped Acon. and Bell., and gave Phytol. decand. (tincture from root), 15 dr. in one-third glass of water, two teaspoonfuls at a dose every hour; with a gargle of the same, 3 dr.

to a glass of water. It was the quickest cure of the disease I ever made. (*Ibidem*; G. F. Foster.)

194. Miss A. Tonsils very much swollen, covered wholly by the false membrane; she was panting for breath; eyes staring, and her condition dangerous and distressing. Phytol. decand., 4 dr. of tincture of the root, every hour. Next morning, found her much better, and in a few days she was convalescent. Several cases occurred in the same neighborhood, and were all cured by Phytol. (*Ibidem*, 783; J. Doy.) Boyce, Stearns, and others, used Phytol. also successfully. (*Ibidem*.)

195. Great headache; violent aching in the back and limbs; great prostration; cannot stand; when rising up in bed, gets faint and dizzy (Raué's *Therap.*, 120).

196. Phytolac. decand. is suitable when the following symptoms are present: Fever, pulse 120 to 130; general and quick prostration; nervous symptoms with subsequent paralysis; vomiting; dyspnoea; headache; enlarged glands, and especially a false membrane on the tonsils and in the fauces; the exudate is very tough and dirty brown. Palmer considers it a great remedy, where the exudate in the fauces comes off hard. According to Boyce, many cases, which were treated with Phytol. dec., distinguished themselves by a strongly marked adynamic condition, and in many cases a partial paralysis remained. 40 dr. of the tincture to one pint of water makes a good gargle. (*Allg. hom. Ztg.*, 84, 134.)

197. Hughes asserts on the strength of forty-seven cases, treated in the course of ten years, that Phytol. dec. is incapable to subdue the malignant form of diphtheritis, but that it is specific where there is violent fever, pains in the head and back (*Allg. h. Ztg.*, 84, 152).

198. A. E. Small had opportunity to observe the effect of Phytol. dec. in a number of cases, and obtained always good results where there was chilliness during the evening and night, and dryness and soreness in the throat during the morning. In several cases, where the evening chill was followed by soreness in the throat the next morning, he found a bluish-red exudate on the tonsils and fauces, difficult swallowing, and very great sensitiveness of the tonsils, with considerable fever. Phytol. dec. 3 cured

almost always. He says further: When my patients complain of a choking sensation in the throat, caused by the swelling of the tonsils and soft palate, and the soft palate looks fiery-red, I am on my guard, and give Phytol. dec. 3, usually with success. I also give this drug when the patient complains of rawness in the throat, and the neck is so sensitive that he cannot bear the least touch of solid food, and gets almost frantic with pain when swallowing liquids (*U. S. Med. and Surg. Journ.*, vol. 7, 26, and *Internat. h. Presse*, 3, 405).

199. Phytol. dec. cured a sore throat with tonsils swollen and covered with grayish patches; dizziness; backache (*Hom. Monthly*, March, 1874, p. 358, and *Raue's Record*, 6, 87).

Résumé.

The most important symptoms of the above cases and remarks are the following: *Chills usher in the disease*, appearing irregularly the first days; *violent pain in the front or back part of the head, in the back and limbs*; *great prostration*, with fainting or vertigo when rising, preventing the patient from sitting up; loss of appetite; *high fever*; *delirium*; *tonsils, soft palate, and fauces highly inflamed, very much swollen, sore, and sensitive*; *deglutition almost impossible*; choking sensation; dyspnoea; the exudate mostly of a grayish color.

Besides the abovementioned throat symptoms the following are the most frequent among the pathogenetic symptoms of Phytol.: Sensation, as if from a lump in the throat; fulness in the throat; roughness and rawness in the pharynx; dryness in the fauces; disposition to hawk up mucus.

In case 192 a scarlet eruption appeared, and in case 193 a rash.

Hughes (197) considers the drug insufficient in the malignant form.

The doses were from 2 to 6 drops of the tincture in frequent repetition; a preparation of the same strength was used also for a gargle. At times the tincture from the green root was used. If a certain dose did not have an effect it was increased in strength and frequency.

XLIX. PLUMBUM.

200. Schuessler considers the gangrene of the exudate and mucous membrane of the throat the principal and characteristic symptom of diphtheritis, and for this reason Plumb. 4-30 for a specific against it. He has cured many cases with it (*Allg. h. Ztg.*, 78, 62).

201. I have the best success with Plumb. jod. 9-12 (*Allg. h. Ztg.*, 80, 91; Schuessler). Since I use Plumb. jod. I have not lost a single patient, although I have treated several hundred (*Ibidem*, page 145).

L. RHUS TOXICODENDRON.

202. When the child is restless, wants to be carried about, wakes up every now and then complaining of pain in the throat; when a bloody saliva runs out of the mouth during sleep; when the parotid glands are a good deal swollen; when there are transparent, jelly-like discharges from the bowels at stool or afterwards (*Raue's Therap.*, 119).

LI. SALICYL. ACIDUM.

203. Dr. Hanon in Uckermuende has used internally Salicyl. acid. for the last months, and obtained astonishing results. He gives an adult Salic. ac. 0.5 to 150.00 colatur (in a solution of Natr. phosph. 5.0:150.0, in order to dissolve it more readily), every hour 1 spoonful; for children a weaker solution. A girl of seven years. Diphtheritis commenced four days ago; very violent fever; the entire fauces covered with white exudate; Salicyl. acid.; the next night sleep; removal of almost the whole exudate and of the fever in eighteen hours; cured in two days. Woman of thirty-eight years, man of twenty-one years, three girls of eight, ten, and twelve years—diphtheritis. After the third or fourth dose of Salic. ac. the exudate came off so fast that it was thrown out with violent retching. With the disappearance of the exudate the fever subsided, and after twelve hours convalescence commenced (*Allg. Med. Central Ztg.*, 22d May, 1875, and *Allg. h. Ztg.*, 91, 125; *Boston Journ. of Chem.*, 10, 46).

204. Wagner has treated internally and externally fifteen cases, some of them very severe, with Salic. acid., and not lost one case. Light cases were cured in three to five days, and severe ones, where the local and general symptoms allowed but an unfavorable prognosis, required only about eight days to have all signs of the disease removed. In two cases hoarseness and barking cough (affection of the larynx) were present, still they were cured. It made no difference, regarding the course of the disease, whether he used a gargle or not. Children who could not gargle took every two hours Sal. ac. 0.15–0.3 in water or wine; larger children used at the same time a gargle every hour (Salic. ac. 1.5; solve in Spirit. vin. 15.0; Aq. dest. 150.0). If crystals should form, warm the solution (Hirsch., *Ztschr. f. h. Klin.*, 24, 143).

205. Fronthelm reports thirty-one cases treated with Salic. ac.; the severest were cured in eight days, the milder ones in two, three, and four days. There occurred no cases of diphtheritic inflammation of the kidneys, nor were there any cases of paralysis of the palate. He used Salic. acid., 2 gram. to 200 gram. water, and a sufficient quantity of alcohol, externally and internally, every three hours (*Boston Journ. of Chem.*, 10, 46).

Résumé.

The above reports come from allopathic quarters, and it is singular that no homœopathic physician has published any of his experience with this remedy. As Salic. ac., on account of its similarity of operation, takes the place of Carbol. ac. in so many respects, it could be no false supposition that it would be also useful in the treatment of diphtheritis. Although we have no proving of this drug, the above results are so satisfactory that we are justified in using it, at least where Carb. ac. fails. We hope some one will soon publish a proving of this acid, so that we may know just when to select it.

LII. SANGUINARIA CANADENSIS.

206. Boy of five years. Found him with a hoarse, muffled cough; complete aphonia; pulse 132; soft palate and fauces covered with a continuous coating of pearly fibrinous exudation; on

auscultating the larynx the characteristic hissing sound was heard. The difficulty of breathing very great; the child stretched back his head and grasped his throat in his agony, while the dark and swollen features added to the gloom of the prognosis. Sanguin., an acetous preparation, made by steeping 1 gr. of Sanguin. in 2 ounces of vinegar. In fifteen hours the symptoms had undergone a notable modification, and in forty-eight hours the patient was out of danger. No other remedy was used, except an occasional dose of triturated Aconitum (Hale's *New Rem.*, 2d edit., 926).

LIII. SULPHUR.

207. Sulphur possesses an astonishingly quick and sure influence in diphtheritis (*Allg. h. Ztg.*, 80, 89; Lutz). The membranes become soft and come off without loss of substance, the inflammation subsides, the swelling of the glands lessens, the fever disappears, appetite and sleep return. Among the fungus-destroying substances Sulphur, used locally, is the surest, quickest, and most pleasant (*Ibidem*). The flour of Sulphur may be blown on the diseased part, or applied with a small brush, and at the same time the flour of Sulphur may be taken internally, or an emulsion used as a gargle. The main object is to bring continually the affected part in contact with Sulphur as much as possible, till the exudate has entirely disappeared (*Ibidem*, page 90; Lutz). Payr asserts that it is necessary to blow in the Sulphur but three times; besides this he gives against the fever Chininum, 8 gr., to 4 ounces of water, one spoonful every two hours, afterwards Chininum, 2d trit. Since he has adopted this treatment he has had better results than with all other remedies.

208. *Large, yellowish deposit all around the posterior wall of the pharynx*, all posterior to the uvula and isthmus faucium (Raue's *Record*, 2, 73).

209. The whole back part of the throat, posterior to the palatine arch, appears to be in a condition of ulceration and sloughing; very quick pulse; flashes of heat; frequent sinking spells (Guernsey's *Obstet.*, 947).

Résumé.

In No. 207 only the fungus-destroying property of Sulph. is taken into account; in Nos. 208 and 209 the remedy is recommended when the seat of the disease is principally on the posterior wall of the pharynx.

Symptoms which indicate Sulph. are particularly the following: The pain and soreness may be quite severe and even extend into the ear; pain as if from a lump in the throat; empty swallowing more painful than even that of liquids; the inflamed parts not bright-red, but purple; dryness in the throat. Especially in cases which have a slow, sluggish course. Where the indicated medicine does not have the desired effect, interpose a few doses of Sulphur.

LIV. SULPHURIS ACIDUM.

210. The following pathogenetic symptoms point to Sulph. acid: Apathy; white color of the softened and swollen mucous membrane of the mouth and fauces; pulse 108; softening and swelling of the mucous membrane of the palate and pharynx, with *white spots, which cannot be removed*; difficult swallowing; over the entire cavity of the mouth a thick, white coating. After six weeks a large, painful swelling of the left parotis. Excessive paleness. Weakness, languor; severe sopor (Hirsch., *Ztschr. f. h. Klin.*, 14, 156; C. Wesselhœft).

211. The symptoms of Sulph. acid. have not much similarity with those of a severe diphtheritic process, if we, as a matter of course, except the corroding, destroying effect of the undiluted acid. But this drug has a great relation to the aphthæ of little children. Likewise we do not perceive that Sulph. acid. affects deeply the mucous membrane of the larynx, but we observe, especially in little children, that a light diphtheritic process of the mouth spreads to the larynx, and produces thereby a very dangerous condition, which we have several times quickly removed with Sulph. acid. 3 (Hirsch., *Ztschr. f. h. Klin.*, 17, 52; Hirsch).

212. In South Australia, Sulph. ac., 4 dr. to three-fourths glass of water, as a gargle, is used as a quick and sure remedy against diphtheritis (*Allg. h. Zig.*, 90. 120).

213. Girl of 2 years. On the bright-red, swollen tonsils, a white coating soon appeared, which changed after a few days into a thick, grayish, or yellowish-white substance, which was observed also on the hard palate and the inside of the cheeks. When pressing the tongue down, a quantity of this exudate was squeezed out of the fauces. It feels like paste, and is so tenacious, that it can scarcely be crushed between the fingers. Very difficult swallowing; all liquids run out of the nose. No appetite. Apathy, somnolency; the child whines when being lifted. Pulse frequent, small. Excessive fetor oris. Bell. 6, Laches. 30, Merc. sol. 30, Ap. 30; each for two days, the patient growing worse all the while. Sulph. acid. 6; every two or three hours; decided improvement in twenty-four hours, and after forty-eight hours only a vestige of the exudate; recovery three days later (Hirsch., *Ztschr. f. h. Klin.*, 14, 142; C. Wesselhœft).

214. Girl of 3 years. Inflammation of the throat, Bell.; patient worse. On the fourth day teeth, lips, and inside of cheeks covered with a thick, yellow, membranous substance, which can be removed only with the greatest difficulty, and is very sticky. The tonsils cannot be seen. Speech thick, indistinct; swallowing almost impossible; frequent loose cough; both parotid glands swollen, and very hard; great apathy; sopor, Ap., 10; every three hours; worse the next day. Very fetid breath; pulse frequent, and weak; breathing difficult on account of the accumulation of exudate. Sulph. ac. 6, every three hours; distinct improvement in twenty-four hours; in forty-eight hours no fetor oris, and only a little exudate; recovery soon (Hirsch., *Ztschr. f. h. Klin.*, 14, 149; C. Wesselhœft).

215. A woman. Very violent inflammation of the tonsils with great difficulty in swallowing; very difficult speaking; very obstructed breathing; violent fever; intense redness of the fauces; left tonsil as large as a walnut, and covered with a streak of gray exudate of 3 cm. length, and 1 cm. breadth. Fetid breath; violent salivation. Acon. 3, every hour, and every hour gargling with Sulph. ac., 4 dr. to 6 ounces of water. The next morning, exudate, fetor oris, salivation, and violent inflammation removed. In the place of the exudate a small ulcer with clean edge and surface (*Allg. h. Ztg.*, 90, 181; Kafka). (Although

two remedies have been used simultaneously, still we have reported the case, because we do not think that Acon. had any influence on the disease.)

Résumé.

Wesselhöft (210) and Hirsch (211), disagree widely regarding the use of this drug in diphtheritis.

The three cases are very similar, having in common most of the following symptoms: throat inflamed; tonsils bright-red, swollen; exudate thick, grayish, or yellowish-white, sticky, tenacious; swallowing very difficult, liquids run out of the nose; swallowing almost impossible; breathing difficult on account of the accumulation of the exudate in the fauces; obstructed breathing; speech thick, indistinct, very difficult; violent salivation; excessive fœtor oris; pulse frequent, small, weak; apathy; somnolency. Excessive paleness, weakness, and languor (210).

This remedy should receive more attention.

LV. TARTARUS EMETICUS.

216. Difficult breathing; gasping for air; rattling in the chest; retching; vomiting of tenacious mucus; small circular patches, like small-pox pustules, in and upon the mouth and tongue; œdema of the lungs (Raue's *Therap.*, 120).

LVI. THUJA OCCIDENTALIS.

217. Ortleb has used Thuj. with very good success in diphtheritis (*Allg. h. Ztg.*, 91, 125).

General Résumé.

In order to overlook the therapeutical material more readily, we have attempted to classify the drugs, and added a few therapeutical hints to each remedy of the first two classes. For fuller indications see *Résumé* at the end of each remedy.

1. As ADJUVANT *alcohol*, either as gargle or spray.

2. CHIEF REMEDIES:

Apis.—Severe inflammation of throat and fever.

Carbolic acid.—No high local inflammation; no severe pain; the fever, if any, adynamic; much exudate.

Kal. bichrom.—Deepseated affection and ulceration of mucous membrane; bloody discharge.

Laches.—Subjective symptoms, especially those of throat, much severer than objective; left side worse; great prostration even before exudation.

Mercur. hydrocyan.—According to Villers in *all* cases of epidemic diphtheritis; indications wanting.

Nitric acid.—After syphilis, or overdosing with Mercury; swallowing very difficult and exceedingly painful; excessive salivation.

Phytolac. decan.—Chilly; violent pain in the head, back, and limbs; great prostration, with fainting or vertigo; high fever; severe inflammation of throat.

Salicyl. acid.—Indications wanting; probably similar to Carbol. acid.

Sulph. acid.—Accumulation of sticky, tenacious exudate in the fauces; salivation; apathy; sopor.

3. REMEDIES SECOND IN IMPORTANCE: *Arsen.* (later stage, collapse); *Bellad.* (much the same symptoms as *Apis*); *Camphor* (prostration, collapse); *Chin.* (during convalescence); *Lycop.* (worse on right side, stoppage of nose); *Sulph.* (affection of the posterior wall of the pharynx; purple color of the affected mucous membrane; slow, sluggish course).

4. REMEDIES NOT MUCH USED, OR HAVING RECEIVED ONLY A PASSING NOTICE; some of them may never be used again; some may yet become more important: Alum. (externally), Ammon. carb., Arsen. jod., Arsen. brom., Arum triph., Bapt. tinct., Bryon., Calc. chlor., Canth., Capsic., Chlorum, Chrom. acid., Con., Croton, Ferri sesquichl., Gelsem., Hydrast., *Kal. chloric.*, Kal. hydrobrom., Kal. hydrojod., Kal. permang., Kaolin, Kreos., Lachnan., Merc. bijod. rub., *Merc. jod. flav.*, Merc. bromat., Merc. solub., Merc. sublim. corr., Muriat. acid., Natr. mur., Phosph., *Plumb.*, Rhus tox., *Sanguin.*, Tart. em., *Thuj.*

5. REMEDIES USED OR RECOMMENDED AGAINST DIPHTHERITIS OF THE LARYNX: Brom., Carbol. acid., Kal. bichrom., Merc. jod. flav., Merc. hydrocyan., Nitr. acid., Salic. acid., Sanguin.

6. DOUBTFUL REMEDIES: Brom., Chin. ars., Chlor., Iod.

After this general abstract of the remedies, we must speak of several other points.

1. *The INTERNAL treatment.*—Although diphtheritis appears as varied as many other diseases, yet most physicians have entirely neglected to individualize. Many have chosen some *one* particular remedy, administered it in *all* cases without distinction, and justified themselves by their success. If their success has been so satisfactory with *one* remedy for *all* cases, it would have been much better still, if they had individualized and used *various* medicines, just as they would have done in the treatment of any other disease. Nature nor homœopathy has made an exception in diphtheritis. The evil effects of this one-remedy doctoring is seen in the quality of our Therapeia on diphtheritis, which is very inferior to that of any other disease in the whole homœopathic literature. The *general remarks** are often nothing but sweeping assertions, how this or that drug cured *all* cases. Frequently is added, with the greatest *naïveté*, that, notwithstanding in some instances the administration of this one remedy had to be persisted in *for several days* before any improvement was perceived. Now we say, that just these cases should have been treated with some *other* medicine, because if a remedy is the right one *it acts at once, and the recovery is quick*. The majority of the *clinical cases* are insufficiently and incompletely described and the cures not convincing. We do not wish to be misunderstood; we do not demand perfection; but when we see so generally not the least inclination to individualize and read so many worthless clinical cases it is time to reprove. The *modus operandi* and results of a physician in his practice is one thing, and his publications another: with the first we wish to be as lenient as possible; with the other we reserve the right to exercise a severe but just criticism. If physicians had individualized in their practice, and published only *such* cases wherein the influence of the medicine was *quick and unquestionable*,† our Therapeia on

* By general remark, in contrast to clinical case, we understand the indications for the selection of a remedy, such as we find in works on therapeutics.

† We cannot express too strongly our opinion on this point. We are not satisfied with cases where the operation of a drug is only probable, or nearly so. There can be no other reason for publishing a clinical case otherwise than to show the effect of a medicine; and the writer should bear in mind that the reader does not see the case. Therefore its history should be given as completely as possible, the language concise and clear, symptoms well arranged, and, above all, the effect of the medicine so decided that there can be no shadow

diphtheritis would have a much higher standing and be of more practical use. Hand-in-hand with the lack of individualizing is the almost universal practice of using *unusually low attenuations*, with a tendency of going still lower, if the previous seems insufficient. Both deviations from the usual method of *homœopathic* practice have been unmistakably caused by the presence of the fungous growth, which has been altogether too much of a bugbear to most physicians.

We consider a physician a *low dilutionist*, when he uses externally a low attenuation, though he may give internally a much higher dilution. No one will deny that absorption takes place during local application while the drug is in contact with the mucous membrane.

2. *The EXTERNAL treatment.*—Although it has been practically proved (see Nos. 130, 137, 138, 149, 150, 151, etc.) that external treatment is not an absolute necessity, yet most physicians have thus used various substances for the destruction of the fungi. Some have even made it the only object, others the main part of their treatment, and selected the remedy with sole regard to this effect. But as the *internal* treatment has *always* been *justly* considered in homœopathy the *most important* part in the treatment of *all* diseases, we see no reason why diphtheritis should be an exception. Alcohol destroys the fungi as quickly as any of the substances used for this purpose. But as its external use allows at the same time a strictly homœopathic treatment, it has the advantage over all other drugs (see *Résumé*, under Alcohol).

3. *The influence of the EXTERNAL treatment upon the INTERNAL disease.*—The destruction of the fungous growth has *indirectly* a favorable effect also on the general or internal disease, even if the drug has *no dynamical* effect. It certainly gives the system a better chance to recover by its own vitality than if it had to overcome also the local injury of the fungi. Many of the supposed cures are merely the result of this *chemical, local* action of the drug. If a physician wishes to know whether the improvement is due to

of a doubt. *Many* drugs may influence a case, but *only one* will cause a rapid and indisputable improvement or cure. Before estimating the effect of a medicine we should first ask, how soon, most likely, would the case have improved or recovered *without any* medicine.

the chemical or dynamical effect, let him use this same medicine above the 6 decim. dil., and he will see the difference. The mere swallowing of a very low (1 and 2 decim.) dilution or trituration, cannot help having also a local, chemical influence. There have been more recoveries, *not cures*, than many physicians have been aware of.

4. *The CHARACTER (severity) of diphtheritis.*—With the exception of cases in certain localities, and when it prevails as a *malignant* epidemic, we do not consider diphtheritis such a dangerous disease as it is frequently viewed; on the contrary, it is very manageable and accessible to treatment. We have seen much severer cases—sometimes formidable ones—during our ten years' practice in Concord, N. H., than we have during six and a half years in Plymouth, Mass., or three and a half years on Staten Island, N. Y. In either of the two latter places a *homœopathic* physician never need lose a patient, though he frequently may have quite a violent case. Similar differences are probably found between other localities, also between different epidemics, and this should be taken into account in estimating our success and the effect of our remedies. The unfavorable result of allopathic physicians should not mislead us to consider the disease *naturally* as severe and fatal as with them, since the more heroic the *external* treatment the worse the result; on account of this treatment their success is more unfortunate and murderous in this disease than in any other; it is *they* who *make* the disease severe and fatal.

5. *Diphtheritis of the LARYNX* has proved in the greater number of cases a fatal disease. Some physicians have not hesitated to say they never cured a case. No special indications have been given for the selection of the remedies.

6. The *DIET* should receive particular attention even after recovery, as improper food may cause death, especially with children. A child of 3 years, after complete recovery, was given two hard-boiled eggs for breakfast, against the strictest orders. I chanced, about an hour after, to be present, when it vomited them up; three hours' later it was dead. I learned afterwards that it had been given other improper food the day before (see No. 9).

ARTICLE III.—Symptomatology of Cerebro-Spinal Meningitis.

By E. M. HALE, M.D.

I DO not know if the idea is original; at any rate, it has occurred to me that the symptoms of a disease might be presented much in the same manner as we present the pathogenesis of a medicine, namely, by collecting the histories of the disease from various observers, and arranging them in a "*schema*" as we arrange the provings of medicines. I will, therefore, attempt to give the symptomatology of this disease:

MIND.

Delirium, mild and playful, furious or reasoning, sometimes decidedly hysterical.

Insanity, violent, and great muscular strength, with alternate madness and high, merry delirium.

Waking suddenly in the middle of the night, delirious, humming tunes, fancies different people are conversing with them.

The delirium is often the first symptom, or it may not occur for several days; it seems in some cases to be caused by the intense pain.

Patients sometimes groan and complain; use incoherent words, or are ruthlessly active without any object.

Sombre and silent delirium.

Extraordinary clearness of intellect often precedes the delirium or coma.

Loss of Memory: Most of the patients, on recovering, had totally forgotten the commencement of their illness, and were astonished to find themselves in the hospital.

Coma occurs sooner or later in all fatal cases, but rarely until near the approach of death.

HEAD.

VERTIGO, from the *very access*, with anxiety in the stomach, acceleration, and irregularity of the pulse, nausea, and even fainting as from great loss of blood.

Giddiness, with dimness of sight, and great debility.

Giddiness which compelled them to whirl round, when they fall and did not rise again.

Violent vertigo with maniacal delirium ; he staggered about the room like a drunken man.

Vertigo with confusion of mind, and rendering walking impossible.

HEADACHE is one of the most constant of all the symptoms pertaining to this disease.

Distressing and heavy pain in the head, with tenderness of the scalp. Distress almost amounting to torture, particularly through the temples and the forehead between the eyes. It is so excruciating that the patients cry : "Oh, my head, my head !" It extorts cries and groans which cannot be repressed. Sharp and lancinating, sometimes confined to a small spot, or throbbing and boring.

Headache, as if the head were in a vice, as if a band were around the head, or as if nails or screws were forced into the brain, or as if the brain was stretched by a bar of metal.

Even during *coma* the pain causes contortions and cries, the head is moved as if in pain, and the hands grasp the head.

Headache is severest in the occiput, whence it extends into the vertex or forehead, into the ears, eyes, face, or downward along the spine, and into the neck and shoulders.

Headache, *with violent vomiting and retching.* This is often the first symptom.

Headache, with excruciating pains in the *nape of the neck*, limbs, calves of the legs, and joints, one or both knee-joints (like rheumatism) with stiffness of the jaws and neck.

FACE.

The expression of countenance in this disease is peculiar ; the features are contracted and distorted in every manner, indicative of severe suffering from the pain in the head ; or

The face assumes a fixed and rigid expression, or is dull and stupid, like a person dead drunk ; but *not* turgid and purplish. Neither is the face dark, dull, or dusky and swollen as in typhus,

or the languid, sleepy expression with circumscribed flush on the cheek as in typhoid.

A *pale and sunken countenance*, at the beginning of the attack, is peculiar to this malady.

Convulsive movements of the face, or palsy of the facial muscles.

EYES.

Spasmodic movements of the eyeballs and spasmodic winking.

A peculiar, uniform *redness* of the albuginea, or a redness or suffusion of the white.

The conjunctiva has a *pinkish* tint, and no distinct vessels seen (in children).

Conjunctivitis, with profuse purulent discharge.

Softening and ulceration of the cornea, choroiditis, hypopion, opacity of the vitreous humor, or even destruction of the globe.

Double and even *triple vision*, caused doubtless by the *strabismus*, transient or permanent.

Divergent strabismus, squinting.

Blindness, sudden, followed by raving delirium; blindness, with general numbness or partial anæsthesia; generally transient.

Amaurosis, sometimes permanent.

Sparks, flashes, flames, and various colors before the eyes.

Pupils sometimes alternately dilate and contract; at one time almost wholly obliterating the iris, then contracting to the size of a millet-seed, then suddenly dilating.

Dilatation in seven out of forty-one cases; in the rest they were either *contracted* or natural.

Contraction of the pupil most common at the commencement of the attack; in the final coma they were permanently dilated.

The pupils of one eye dilated, the other contracted; this condition not generally present; the pupil is often natural.

Photophobia is often present in a painful degree.

EARS.

Hearing is something natural; patients often lose it on recovering, without perceptible injury about the ear.

Sudden deafness, at any period of the disease.

Purulent discharge from the ears.

Various noises in the ears: ringing, singing, buzzing, etc.

The deafness (says Stille) appears to depend chiefly on the presence of the plastic exudation in which the auditory nerves are imbedded.

NOSE.

Purulent discharges from the nose.

The sense of *smell* is lost in one or both nostrils.

MOUTH AND TONGUE.

The fuliginous condition of the tongue, gums, cheeks, and lips so common in typhus and typhoid is *not present*.

The *tongue* is generally moist, whitish in the centre, and at the tip and edges; in a few cases it was dry and brown. (Stille.)

The tongue becomes dry, dark-colored, even black, fissured and swollen, and covered with sordes. (Clymer.)

The state of the tongue is of very little service in diagnosis or prognosis. (Miner.)

Bloodless appearance of the tongue is a certain token of approaching death. (North.)

I have seen it first white, then brown and dry, and finally cracked and fissured, and during recovery white again. (Hale.)

A tendency to palsy of the muscles of the tongue and face.

THROAT.

In some epidemics *sore throat* is a common initial symptom.

Spasmodic affections of the throat, or paralysis of the organ of deglutition.

Diphtheritic affections of the throat, either as an accidental complication, or belonging to the epidemic. (Hale.)

The throat on examination presented the same appearance as in *Cynanche maligna*, except the swelling of the tonsils.

Swelling and inflammation of the gums and fauces, with *salivation*.

Fauces very red, but not swollen.

A thin, pearl-colored or whitish band upon the gums, which in one case invaded the fauces.

Parotid glands swell and suppurate.

APPETITE.

During the first or painful stage the appetite is, of course, lost; but after this period has passed a desire for food is generally exhibited.

Children often express a strong desire for food.

Unnatural desire for food, even when dangerous symptoms set in.

Digestion generally good, but food does not seem to nourish the body.

Thirst is not generally present. (Jackson.)

Extreme and urgent thirst; *not* for cooling and acid drinks, which were generally disagreeable, but for *warm* and *aromatic* beverages. (Hall.)

The hospital patients were clamorous for fluids. (Stille.)

Constant hiccup, with cold, pale face.

NAUSEA AND VOMITING.

Among the initial symptoms, nausea and vomiting are very constantly present.

Violent vomiting generally ushers in the disease; in some cases the vomited matters have no morbid appearance; in others greenish and bilious; and in a few instances, the "ejecta resembled black vomit."

The affection of the stomach is not easily described; some call it a "faintness," some a coldness, others a "deathly feeling;" it often occurs *without* previous nausea.

The vomiting is often excited by the patient's suddenly raising himself up (showing its cerebral origin).

Its sympathetic character is undoubted; it is due to *cerebral pressure*, and not to local irritation of the stomach.

INTESTINES.

Diarrhœa sometimes accompanies the vomiting, and many writers describe the conjoined symptoms as a cholera morbus, but the painful, spasmodic character of that affection is wanting.

Constipation, without being characteristic, is almost uniformly present.

Alternate constipation and diarrhœa have been observed.

URINARY ORGANS.

Have not exhibited any characteristic phenomena.

Urine sometimes *scanty*; sometimes profuse.

Incontinence of urine.

Retention of urine; strangury; dysuria.

(The urine has been found to contain *albumen*, cylindrical casts, and blood.)

GENITAL ORGANS.

No special phenomena.

Amorous paroxysms have been observed during convalescence. (Woodward.)

An intense pain in the uterus, spasmodic, suddenly leaves, and appears in the back of the head, with vomiting and delirium. (Hale.)

Cerebro-spinal congestion has occurred from excessive sexual excitement, without gratification, viz., horrible pain in occiput, vomiting, tetanus, and death. (Douglas.)

CHEST AND RESPIRATION.

Sensation as of a *load* on the chest, or a sense of *constriction* of the chest.

Respiration in general, difficult; sighing, labored, and interrupted.

Its embarrassment was marked by a slow labored inspiration, followed by a quick inspiration and a long pause. (This interrupted inspiration is the same, but not so marked as in tubercular meningitis.) (Stille.)

The striking want of inspiratory rhythm so characteristic of tubercular meningitis is not present. (Niemeyer.)

It may occur, however, when there is *central* cerebral compression, tetanus, and paralysis. (Hale.)

Rattling, hurried, and stertorous breathing, at the close of fatal cases.

HEART.

A sharp agonizing pain in the heart, is sometimes one of the first symptoms of the disease. Some fatal cases are attended with distressing palpitation.

Well-marked cardiac blood-murmurs have been heard.

PULSE.

Only in *rare* and exceptional cases is it *full* and *tense*.

Increased frequency of the pulse is *not* a prominent symptom of the disorder.

Pulse remarkably *variable*, so that in the course of an hour or in less time, it changes from quick to slow, from strong to feeble, and *vice versa*.

Generally the pulse is small, thready, weak, and intermittent in cases tending to a fatal issue.

Rarely any increase of force in the pulse or arterial action after the chill.

At first it is almost *imperceptible* until restored by stimulants.

Sometimes the pulse is nearly *normal* until just before death.

Sometimes, from being preternaturally *slow*, it becomes very rapid, rising from 40 or even 29 in a minute to 130; nor was this sudden change always a fatal sign.

Muscular exertion, rising from a recumbent posture, etc., sometimes doubled its frequency, besides producing considerable irregularity.

The pulse is never like a *febrile* pulse, *i. e.*, hard, full, and tense, but nearly always diminished in force and volume, impaired in tone, and variable in frequency.

SKIN.

The condition of the skin as regards *dryness* and *moisture* is various. (Stille.)

In the early stages the skin is perhaps invariably dry; at a later period spontaneous sweats break out on the head, chest, and arms. (Jackson.)

Very difficult to excite a sweat, or present a moist skin after it is procured. (Fish.)

There are a few instances of morbid, drenching perspiration. (Minor.)

Instead of being gratified by the appearance of perspiration, I look upon it with alarm, as it indicates rapid failure of the vital powers, and not indication of recovery. (Hale.)

Sickly smell of the perspiration.

FEVER.

Temperature.—The heat of the skin is constantly less than in fevers or pure inflammations, and is constantly undergoing vicissitudes, such as are observed in no other disease.

Cases *rarely* occur when the *heat* is above the natural standard.

A *diminution of heat* may be considered as among the most striking symptoms of the disease.

The *heat* rarely comes up to the natural standard.

The skin is unnaturally cold the first days; the limbs sometimes cold and numb.

The extreme irregularity of the *thermometrical* result in this disease, is one of its most characteristic features; the temperature is so fluctuating that few of the cures representing it coincide. (Ziemssen.)

In *one-third* of the cases, the temperature is *below* 103°.

Just before death the temperature sometimes rises to 108°.

Eruptions.—In a large proportion of cases, no eruption at all is present, and eruptions of the most various characters may appear upon the skin. (Stille.)

No eruption whatever in 37 out of 98 cases (in the Philadelphia Hospital).

Fifty-nine per cent. presented some morbid appearance of the skin. (Mass. Reports.)

A distinct *eruption*, which comes out with great rapidity, is found over all parts of the body, but chiefly on the lower extremities; is of very dark color, sometimes very deep brown or purple, or even black; the spots are of various sizes and shapes;

some small and round ; others large and irregular ; some appear like large spots of very black purpura, only more mottled and more irregular in color and shape ; others are more confined and raised above the level of the skin, consisting in effusion into its substance. (Gordon of Dublin.)

Gangrene of the skin has been noticed when the spots have been peculiarly dark. (Stille.)

Spots or petechiæ of a scarlet color, generally few in size and minute in number, all over the body. (Kempf.)

The skin presented a maculated appearance of a dull crimson color, in malignant cases. (Ib.)

A red, fiery eruption, sometimes in clusters, and sometimes in large, distinct pustules. (Haskell.)

Bright red spots, an efflorescence resembling measles. (Bistor.)

A uniform redness like *erysipelas*. (Ib.)

A *miliary* eruption. (Fiske.)

An eruption like *nettle-rash*. (Ib.)

Large *bullæ* (water-blisters) as if produced by *Cantharides*. (Jackson.)

An *herpetic* eruption about the mouth and on the lips. (Fah.)

An efflorescence resembling that of *scarlatina*. (Ib.)

Spots of a scarlet or red-rose color with petechiæ.

Cherry-colored spots with petechiæ and *ecchymosis*.

Large elevated spots of the size of a twenty-five cent piece, of very dark color, presenting outside of the dark red color a blistered appearance. (Jahr.)

(It is seen by the above that no one kind of eruption is constant ; nor is any eruption present in the majority of cases. Out of twenty-seven cases under my own observation, I have met with but four in which an eruption was present.) (Hale.)

CUTANEOUS SENSIBILITY.

Hyperæsthesia of the skin is a symptom which may be considered as characteristic of this disease. (Stille.)

The whole surface of the body is very sore to the touch.

Cutaneous sensibility is the last of the sensorial functions to be lost; never until the near approach of death.

Patients wince upon the slightest touch, or refuse to change their position in bed from the pain, consequent on the slightest movement.

This hyperæsthesia is *sometimes* followed by cutaneous numbness and insensibility, especially on the anterior surface of the trunk. (Stille and others.)

SPINE AND LIMBS.

Agonizing pains in the nape of the neck, extending up into the head, and down the whole length of the spine into the arms and legs.

Sharp, piercing pains in the cervical region with great tenderness on pressure.

Violent, sharp pains in the back and shoulders.

Violent pains in the limbs mounting up into the head, followed by numbness of the extremities. A pain resembling the sensation felt from the stinging of a bee, seizes the extremity of a finger or toe; from thence it darts to the foot or hand, or some other part of the limbs, sometimes in the muscles, carrying a numbness or prickling sensation in its progress. After traversing the extremities, generally on one side only, it seizes the head, and flies with the rapidity and sensation of electricity over the whole body, occasioning blindness, fainting, sickness of the stomach, with indescribable distress about the præcordia; a numbness or partial loss of motion in one or both limbs on one side, with great prostration of strength. The horrible sensation of this process no language can describe.* (North.)

“The pain is most severe in the neck, but often extends the whole length of the spine. They may last through the disease, and even into convalescence, or remain only a few days.”

Wherever the pain is located, it is usually aggravated by *pressure*.

* This group of symptoms closely resemble those observed in sudden death due to bee-stings. (Hale.)

It was my intention, while writing a monograph on Cerebro-spinal meningitis, of appending thereto a complete repertory of the medicines indicated in that disease. A portion of that repertory was published in the *United States Medical and Surgical Journal*. Other literary labors, however, put an end to a work which I hope some of my colleagues will some time perform. It was also my intention to add to all the above symptoms and conditions, the remedies indicated for them, but I have never found time to carry out my plan. With this *schema*, however, every physician can make his own repertory. In aid of this plan, I hereto append a list of the medicines which appear to be best indicated by their symptomatology and pathology.

I have given them in the order of their apparent relative importance, as appears from the provings and clinical experience which relates to them.

VERATRUM VIRIDE,	Aconite,
CICUTA VIROSA,	Arsenicum,
<i>Gelseminum</i> ,	Æthusa,
<i>Belladonna</i> ,	Ænanthe,
<i>Secale</i> ,	Verat. alb.,
<i>Cimicifuga</i> ,	Helleborus nig.,
<i>Cannabis indica</i> ,	Digitalis,
<i>Agaricus m.</i> ,	Cactus,
<i>Calabar</i> ,	Opium,
<i>Solanum nig.</i> ,	Hyoscyamus,
<i>Stramonium</i> ,	Apis,
• <i>Nux vomica</i> ,	Crotalus,
<i>Rhus tox.</i> ,	Lachesis,
<i>Glonoine</i> ,	Ignatia,
<i>Camphor</i> ,	Terebinth,
<i>Arnica</i> ,	Chloral,
<i>Picric acid</i> ,	Cantharis,
<i>Phosphorus</i> ,	Silica,
<i>Kali, brom. and amm.</i> ,	Anacardium,
	Argent. nit.,
	Zinc,
	Cuprum,
	Cocculus,
	Mer. cyan.,
	Baptisia.

ARTICLE IV.—Correspondence.

NEW YORK, April 27th, 1876.

EDITOR OF THE NORTH AMERICAN JOURNAL OF HOMŒOPATHY.

DEAR SIR: Your Monthly for May contains several articles of peculiar interest to the student of nervous conditions and disease, and I have been much drawn to their consideration. In one, under the title of "Sexual Irregularities in the Male," occurs an allusion to the opinion of phrenologists that the cerebellum bears a special relation to the amative function. The writer prudently avoids any dogmatism upon the matter, but states frankly the fact of the destruction of sexual desire being repeatedly observed in cases of wounds and injuries to the head. I am of the opinion that if an opportunity were afforded to examine the cerebellum, and the adjacent convolutions of the cerebrum, in one who exhibited high amative excitement, a condition of excitement would be found to exist in those parts. Several years ago a young man died in this city under peculiar circumstances. It was the day of his marriage; the ceremony had been performed in the presence of a large company of friends, and he had withdrawn from the joyous circle, for only a brief interval, it was supposed. Time passed on, and as he did not reappear a search was made, and he was found dead in an upper room. No marks of violence were visible. The physicians who were called in noticed that his penis was in the erect condition, and at the suggestion of a phrenologist present, an examination of the brain was instituted. The cerebrum appeared normal, but the cerebellum was highly congested, and this young man's death was imputed to lesion of that organ under the strain of erotic emotion. This case is authentic, as our attention was called to it at the time, and one of the firm was present at the autopsy.

We do not claim that the cerebellum subserves no other mental relation than that of the sexual function, for old and recent vivisections go far to demonstrate its connection with muscular movements.

Yours, respectfully,

H. S. DRAYTON,

Editor Phrenological Journal.

**ARTICLE V.—Address of Carroll Dunham, M.D.,
to the World's Homœopathic Convention of 1876.**

LADIES AND GENTLEMEN : The proposition to hold a World's Homœopathic Convention was first made by the American Institute of Homœopathy, in a circular letter issued by its Committee of Foreign Correspondence in 1867. The plan of the present convention was conceived soon after the project of a formal celebration of our National Centennial took definite shape.

Many years must elapse, it is true, before the centennial of Homœopathy, which, in America, has but just celebrated her fiftieth anniversary. Yet certain analogies between the early history of Homœopathy and the event which our countrymen celebrate in Philadelphia this summer, justify the time and place of our assemblage.

The innovation upon accepted theories of society and government involved in the Declaration of Independence by our forefathers was not more radical than that which was involved in the reform introduced in medical science by Hahnemann.

Notions of prerogative by virtue of birth or of caste ; notions of governors as a race distinct from the governed ; vested rights transmitted in corporations from mediæval times ; in these things was grounded the opposition to the political reform of our fathers.

Things identical or analogous hindered, and still hinder, the advancement of Homœopathy, as the historical and statistical reports presented to this convention abundantly show.

Reforms are not favored nor furthered by governments and venerable corporations. These institutions are, from the nature of things, conservative and repressive.

Reforms of a practical nature are received first by the people ; adopted and cherished by the people ; and, if governmental acceptance be necessary, forced on the government by the people.

The history of Homœopathy shows that in countries in which the government is absolute, in which education and the exercise of the liberal professions and the arts connected therewith are under the control of self-perpetuating boards or corporations,

there our colleagues have found it difficult to obtain freedom to practice, and well-nigh impossible to gain liberty to teach.

In proportion as the government, whether of the realm or of corporations, being in a degree representative, stands nearer to the people to whom the reform is a matter of vital interest, do our colleagues enjoy comparative freedom to practice and to teach.

In our own land, where the liberty of the individual is limited only by the liberty of his neighbors, where order is maintained by a government "of the people, for the people, by the people," we practice and teach without hindrance; and the advancement of Homœopathy has been rapid and solid beyond precedent, because the people have so willed it.

The coincidence, then, of this convention and the centennial of our nation has a significance. It is full of instruction and warning to us, if we would retain what we possess.

It was not to be expected that many of our foreign colleagues should make the long journey necessary to be present with us on this occasion. Some have come, however; and we welcome most heartily our distinguished confrères, already known to us by their works and their fame, who represent the homœopathists of Europe and South America.

But although comparatively few could be with us in person, our colleagues in every land have responded heartily to our invitation by reports and scientific papers, which, together with those contributed by our fellow-citizens, will furnish the topics of our discussions.

Moreover, by official and personal letters, they have manifested their good-will and sympathy in the inception and work of the convention. Such letters as are addressed to the convention are herewith submitted; and since some of them contain suggestions for action on the part of the convention, I request that they be referred to a Committee on Correspondence, with instructions to report with recommendations.

Among these communications is one from the venerable widow of the illustrious founder of our school, who now, at an advanced age, impoverished by the calamities of war, extends her greetings to the homœopathists of the world here represented. In token

of her sympathy, she sends to the convention, with an ulterior destination in the discretion of the President, this bronzed bust of Hahnemann, cast from the marble bust by David D'Anger, and which she affirms to be a perfect likeness of that illustrious man.

Our colleague, Dr. Rubini, of Naples, in a letter to the convention, calls attention to his peculiar views of the treatment of epidemic cholera, which he supports by remarkably favorable statistics. As a mark of respect for the convention, he has sent to the President autograph letters of Hahnemann.

Our colleagues of the United States of Colombia, in South America, inspired by the energy and prosperity of the American Institute of Homœopathy, have not only revived their National Institute, which, in consequence of political disturbances, had slept for several years, but they have organized in Bogota a homœopathic school, which they have done us the honor to designate as a "branch of the American Institute of Homœopathy." These institutions request us to enter into intimate scientific relations with them in matters connected with the cultivation of our *Materia Medica*; and they make suggestions to this convention, which appear in the letters herewith submitted.

Several other societies and individuals send communications which, if you please, will be reported in detail by the committee.

The historical and statistical reports presented to the convention, and which though of exceeding interest are altogether too long to be read during our sessions, comprise the history and statistics of our school in every country of Europe; in India, in South America, where, in Brazil, a national institute and college were established one year before our own; in North and South Africa; in Australia, and in New Zealand. We may say, with almost absolute accuracy, that in none of these countries save Germany was there fifty-five years ago a single homœopathic physician. Now, it is safe to say, that Germany, France, England, and Italy have each about 300, Spain and her colonies between 500 and 600, Brazil about 200, Russia about 150; and in each of these countries, we are told, the demand for homœopathic practitioners is so great that, if instruction were free to our colleagues, and no hindrances were placed in the way

of students of homœopathic medicine, the increase in our numbers would be very rapid. Dispensaries and hospitals exist and are increasing in numbers and patronage. Measures are being set on foot for the education of young physicians in the principles and practice of Homœopathy, and the confidence of the public is won by our practical success.

In our own country, the reports of the several States give an aggregate number of above 5000 homœopathic physicians. We have many dispensaries and hospitals supported by private charity; seven colleges, exclusively homœopathic, enjoying equal privileges with any other medical colleges in the country; and two State universities and several State hospitals, in which, despite the opposition of our brothers of the old school, the people who support these institutions have decreed us places in the faculty and on the staff.

Most schools of medicine have perished with their founders, or a little before them. Thirty-three years have passed since the founder of our school entered into his well-earned rest. Our growth in numbers and influence has been steady, and never so rapid as within the last decade.

The time at my disposal would not permit an analysis of the system which presents so remarkable a history. I crave permission, however, to devote a few moments to some of the relations of Homœopathy to the medical science of Hahnemann's day and to the medical science of our own day.

Homœopathy, in its complete form, was introduced to the public in 1810, by the publication of the *Organon of the Rational Art of Healing*, a work which, it seems to me, has hardly been fully understood or appreciated even by the majority of Hahnemann's enthusiastic admirers—a work which, far from consigning to the shelves as a classic, venerated but seldom read, and not looked on as authority in practical matters—I should place, for frequent perusal and as a trusted guide, in the hands, not perhaps of the student, but of the educated earnest practitioner.

Condensed in style to the exclusion of every superfluous word, this work is not a system of medical science, but, as its title signifies, a treatise on the practical art of healing, with only so

much of theoretical discussion as seemed necessary to make the meaning clear, with only so much allusion to other departments of medical science as seemed necessary to show their insufficiency for the needs of the practical physician, or to show the errors of philosophy and method through which they failed to accomplish the true end and object of all medical science, a speedy, safe, and pleasant mode of cure.

Should we heed some self-appointed champions of Hahnemann, we might suppose that this illustrious physician denounced all medical science save that which he especially taught, and discouraged its acquisition by his followers.

Were this indeed so, the reproach of our adversaries might have some foundation: that Homœopathy is a system which a layman might practice as well as a doctor. Again, if we listen to these brethren who seem to arrogate a special knowledge of Hahnemann and of Homœopathy, we might suppose that Hahnemann proclaimed his *Organon* and later works to be the alpha and omega of medical science, rendering all other medical knowledge superfluous. Very far is either of these propositions from the truth. Hahnemann as a physician was distinguished by profound learning and the broadest medical culture of his times. His writings are full of this learning. His extensive reading in every language in which medical men had written, enabled him to make those citations which, in the *Organon*, so irrefutably prove his positions, and in the *Materia Medica* enrich his pathogeneses. The spirit of the medical science of his day permeates his *Organon*. It is not too much to say, that without this great fund of medical knowledge he could not have given us the magnificent argument of the *Organon*, nor the practical instrument of the *Materia Medica*. Now, seeing from the commanding eminence which he occupied, as a master in medicine, how barren of practical good was the medical science of the day, he was not so illogical and unjust as to denounce that which gave him this broad vision and the benevolent hope that came with it. He did perceive that all the efforts of scientific men had failed to realize what is, after all, the great practical end of all effort in this direction, viz., a true science and successful art of therapeutics. And he perceived and clearly showed that this failure

resulted from an erroneous method of seeking for facts and reasoning from them; in a word from misdirected observation and a mistaken philosophy. He proceeded accordingly to use the facts of which his acquaintance with medical science had possessed him, to demonstrate the new science of therapeutics which he unfolded, and to make new observations in accordance with what he deemed a correct philosophy.

But he never declared the ladder superfluous by which he had climbed, nor denounced the bridge which had carried him safely over his perplexities! The *Organon* is strictly what its name signifies—an instrument of the rational art of healing—an exposition of therapeutics or that branch of medical science which concerns itself with healing disease by means of drugs, and its author assumed that those who would use it would be men already versed in medical science. In four of the terse and weighty sentences which characterize this book,* Hahnemann takes it for granted, “as a matter of course,” that “every sensible physician,” before applying the art of healing which he is unfolding, will first make certain investigations and take certain steps, which investigations and steps really comprehend what we now comprise under the heads of etiology, semeiology, diagnosis and hygienic management. I need not say to this learned body that he who can investigate these points satisfactorily, and take these measures judiciously, must be well versed in medical science. With this single assumption that his follower would, as he needs must, be familiar with general medical science, Hahnemann dismissed all considerations of anything save *therapeutics*; and he proceeded to show the errors of this department of medicine as it then existed. He showed that the indications for treatment were based on hypothetical assumption of the essential nature of the disease—a matter which is of necessity unknown, it being but a modification of the eternal mystery, Life. He showed that the uses of drugs were deduced from hypotheses concerning their intimate action; and this not on a constant but a variable object, viz., the diseased organism. It was *this unstable foundation of hypothesis in therapeutics* which

* Paragraph 5 and the note.

Hahnemann denounced, and for which he was the first to substitute the "positive philosophy" based on pure experiment and exact observation, which is now universally accepted in the physical sciences, the therapeutics of the old school alone excepted.

In the exposition of his new philosophy Hahnemann provided for an investigation of the patient of which hypothesis should form no part of the foundation, by affirming that, for the practical needs of the healer of the sick, the aggregate of the symptoms constitutes the "principal and only condition to be recognized and removed by his art." The semeiologist may speculate, if he will, on the ulterior cause or the essential nature of some or all of the symptoms, but for the *practical prescriber* the symptoms themselves in their totality furnish the only precise and safe indication for treatment by drugs. He was the first to establish pharmacodynamics as an independent physical science, based on observation of the effects of drugs on a constant object, the healthy human organism. I use the term pharmacodynamics instead of *materia medica*, because this science—the subject of which is the relation of the healthy living organism to whatever substance is capable of modifying it, the extension of which is limited only by the variety of substances capable of modifying the organism,—investigates the properties of all substances that have the power to change function or tissue, independently of any use which has been or may be made of them in the medical art. It properly, therefore, embraces, to use Professor Allen's happy phrase, "every noxious substance;" the word "noxious" meaning—not "*nasty*," as some appear to think, but—"capable of harming or injuring—that is, of modifying—healthy function or tissue." He demonstrated the law of relation between the symptoms of the sick and those produced by drugs on the healthy, by virtue of which law the right remedy might be selected for each case, provided the science of pharmacodynamics have given us a knowledge of the required drug. He proved that the power of drugs to cure disease is not in direct proportion to the quantity of the drug employed, and further that a certain mode of subdivision of the particles of the drug greatly enhances the power of the preparation to modify morbid functions and tissues.

These are the essential features of the reform in medicine,

which in 1810 was represented by Hahnemann. In 1876, this representative body, speaking for thousands of practitioners, and millions of grateful adherents in every quarter of the globe, attests its soundness and vitality.

During this period, our brethren of the old school have been most diligent in the pursuit of medical science, and we may profitably ask, what relations the departments to which they have especially devoted themselves now hold to the science which alone distinguishes us from them—Therapeutics? This question will be discussed, in various relations, during the sessions of this convention. I crave permission to say, for myself, a few words on one of them. Pathology, which hardly existed as a positive science in Hahnemann's day, has been diligently elaborated by ingenious and exact experimentation, until to-day it holds no mean rank among the positive sciences of observation. Must we denounce it as Hahnemann did the pathology of his day? Can we not use it? It has been held to be the criterion of a true natural science, that new discoveries, new sciences, extend and enrich it; unite with it in amplifying the horizon of human knowledge and power; but never contradict or supersede it, nor are even indifferent to it. This is an expression of the unity of true science. If, then, our science of therapeutics be not capable of adapting itself to, of dovetailing with, or making subservient to its uses any exact related physical science, is not that fact the condemnation of our therapeutics? Pathology is the science of functions as modified by disease, and pathological anatomy the science of tissues as modified by disease. Using the word symptom in its largest sense, as a modification of function, or tissue, or both, pathology is, therefore, the science of symptoms. It concerns itself with the relations of symptoms to each other as individuals or classes, with the rank of different symptoms in order of time and causation, with their origin and evolution, and their relation to tissues, organs, or apparatus. To give a few examples, it deals with the relations of the symptoms of the heart and kidney respectively; of those of glycosuria and functional liver disturbance, or cerebral disorder, or gastric derangement, or dietetic error. This science of symptoms enables us to detect the dependence of symptoms upon material removable

causes, such as the symptoms of syncope on a wounded blood-vessel, of intoxication on poisonous ingesta, of various disorders on injudicious modes of life, and leads us to those measures which Hahnemann supposes every "sensible physician" will resort to before he has recourse to therapeutics proper. Finally, it enables us to detect "morbid chronic miasms," as Hahnemann calls them, as the hidden "causes of chronic disease." These are a few examples from a host that might be cited.

Now, Pathology, enabling us thus to trace the relations of symptoms to each other, enables us, in the first place, to follow Hahnemann's advice more extensively than was practicable in his own day, and "discover the primary cause of a chronic disease," or "discern the exciting or maintaining cause of the disease and take measures for its removal," as Hahnemann directed us; and, by the aid of Pathology, many cases are now relegated to the domain of Hygiene, which were formerly regarded as proper subjects for drug-treatment.

In the second place, Pathology, concerning itself with the origin and relations of modifications of functions, that is, with symptoms, enables us to procure from observation of the patient a much more complete picture of the totality of the symptoms than would be possible without its aid; just as a systematic and intelligent survey of a museum gives us a more complete knowledge of its contents than any routine examination of it would do. Where, for example, the routine observer, getting the symptoms resulting from a diseased kidney might, from the absence of striking symptoms, fail to interrogate those of the heart, or *vice versa*, and thus fail to get the complete totality of the symptoms, the pathologist is led, by his knowledge of the close relations of these organs in disease, to investigate more closely, with results which greatly assist his selection of the remedy. Or, the routine observer *might* fail to get, in a pleurisy, more symptoms than those of a pleurodynia; but the pathologist who knows the semblances and differences in the symptomatology of these affections, will so direct his inquiries as to bring out a totality of symptoms which should not only leave no doubt as to diagnosis, but should also point more clearly to the remedy than the others. So it appears that modern Pathology, which has been assumed to stand

in direct opposition to the doctrine that for the prescriber the totality of the symptoms represents the disease he is to remove, is really the prescriber's most efficient and indispensable instrument and aid in getting at that very totality of symptoms which he is to remove by a corresponding drug. Used in this way, as an aid in the methodical investigation of the symptoms, both of disease and of remedies, Pathology, imperfect as it is, is of inestimable value to the homœopathist. And, taking this view of the subject, I do not hesitate to say that the strict Hahnemannian, if, with complete medical culture, he investigate and treat his case in the spirit of Hahnemann's doctrine, is the best and profoundest pathologist.

But if, diverting Pathology from this, its legitimate function, the homœopathist construct by its aid a theory of the essential nature of the disease, and a theory of the essential nature of drug-effects, as that the one or the other depend on a plus or minus of some blood constituent, or on such or such a cell change, or on such or such a structural lesion, and if he draws his indications for treatment from such a theory, he introduces into his therapeutics the same element of *hypothesis* against which Hahnemann protested, and in so doing he diverges from Homœopathy towards the blind uncertainty of the older therapeutics. Moreover, however well grounded his hypothesis may be—when he prescribes on the basis of a pathological induction, or when he elects to regard one pathological modification of function or tissue as comprising the sum and substance of each and every case in which it is recognized, he necessarily prescribes for a *class*, and is unable to observe that strict individualization which is essential to a sound homœopathic prescription. This must always be the case. It is especially true in the present imperfect state of Pathology, which has no way of accounting for the firm subjective symptoms that are so valuable to the individualizer.

To say more on this point would be to trespass on your patience and on the ground of to-morrow's discussion.

When Hahnemann promulgated his reform it was received with universal derision by the profession. What is the present attitude of our opponents towards its fundamental propositions?

First. That, for the practical physician, the aggregate of the

symptoms constitutes the disease. Aitken says: "It is now a received pathological doctrine that disease does not consist in any single state or special existence, but is the *natural expression of a COMBINATION of PHENOMENA arising out of impaired function or altered tissue*" (1.6). This is equivalent to Hahnemann's proposition.

Second. That the only valid source of positive knowledge of the action of drugs is to be found in observations on the healthy organism is now widely conceded, and the physiological laboratories of the old school issue every year elaborate drug provings which, though defective in points that we deem essential, are, I think, of great value to us.

Third. Touching the law of cure, *Similia similibus curantur*, to show the absurdity of which so much logic and wit have been expended by our opponents, the latest utterance of the old school is the following by Dr. L. Brunton, the well-known English physiologist: "The opposite action of large and small doses seems to be the basis of truth on which the doctrine of Homœopathy has been founded. The irrational practice of giving infinitesimal doses has, of course, nothing to do with the principle of Homœopathy, *Similia similibus curantur*. The only requisite is that mentioned by Hippocrates when he recommended Mandrake in mania, viz., that the dose be smaller than would be sufficient to produce in a healthy man symptoms similar to those of the disease. . . . But it is not proved that all drugs have an opposite action in large or small doses, and Homœopathy, therefore, cannot be accepted as a universal rule of practice." A great concession truly!

It appears then that our opponents have come pretty nearly to our ground, except on the fourth point, that of the infinitesimal dose. Touching this point their denunciation of us has lost none of its bitterness. They claim to have demonstrated again and again that there is nothing in our potentized preparations. The reasoning of Thomson touching the size of molecules furnishes them with a welcome argument against the possibility of any drug potency existing in even our medium attenuations. And these arguments have strongly influenced many of our own school whose personal experience and observation had not com-

pelled opposite convictions. But let me say that proofs of a *negative* in any matter which can be determined only by experiment, are very fallacious, and a dangerous dependence. I do not despair of seeing before many years, from some old-school authority or some non-medical investigator, a demonstration of the medicinal power of homœopathic potencies; and I warn such of my colleagues as have been influenced by the arguments of our opponents, against the chagrin they will feel when they shall be outflanked on this point; when to unbelieving homœopathists shall be presented, by experimenting allopaths, a demonstration of the drug-power inherent in homœopathic attenuations. An incident touching on the history of our *Materia Medica* is very suggestive in this connection. When the Nestor of Homœopathy,* whose jubilee we celebrated here last March, and whom God spares to gladden our hearts to-day by his presence, undertook those studies of serpent venom which have brought such honor to his name, and such benefit to suffering humanity, he added to the effects observed from swallowing infinitesimal quantities of the venom, the effects produced by large quantities introduced into the system by a snake-bite, regarding the latter as complementary to the former, and both as portions of a graduated scale of homologous effects. But many of our own school could not admit an analogy between the effects of small internal doses and of the bite. The chemists proved that saliva, or gastric juice, or alcohol render venom innocuous. Finally, it was "proved to demonstration," in this city and in India, that serpent venom introduced into the stomach could *not* act. This demonstration of a negative was accepted by many of our own school, by whom the serpent venoms were accordingly discarded as inert. Soon, however, Hermann, the physiologist, giving Curare to a rabbit whose renal arteries were tied, found death occur, and from as small a dose introduced into the stomach as would have proved fatal if introduced beneath the skin. This suggested the idea that the apparent inertness of venom in the stomach results from its slow absorption and rapid elimination, which prevent its reaching the centres on which it acts. And lately Fayrer and

* Dr. Constantine Hering.

Brunton, studying serpent venom under the auspices of the British government, have satisfied themselves, and unequivocally affirm that venom introduced into the stomach affects the system more slowly and gently, and therefore with a greater variety of symptoms, but in essentially the same way, and with a tendency to the same results as when introduced into the blood by a bite. Thus is the negative demonstration overthrown, and the correctness of our veteran colleague's induction most happily established. But in what a position do these facts leave those of our school who, disregarding the provings of trustworthy members of their own school, disregarding and not willing to verify the *a posteriori* evidence of cures in great numbers, cast out from their *Materia Medica* Lachesis, Crotalus, and Naja on the negative demonstration of an old-school physiologist! In the same position many will stand, I think, when ingenious experiment on molecular energy shall lead a Tyndal or a Crookes to a demonstration of the power of potentized medicaments.

Such is the position of advanced thinkers of the dominant school touching the cardinal points of the doctrine held by those who are known as homœopaths, a name which, inasmuch as it still expresses radical differences in scientific belief and a vital difference to the patient in the modes of practice which it involves, I, for one, am not disposed to relinquish. When there shall cease to be *fundamental* differences in *faith* and *practice* among medical men, there will be no further occasion for distinctive appellations.

Ladies and gentlemen! From the tiny spark kindled in Hahnemann's little house at Leipzig, Homœopathy has become this great beacon, illuminating every quarter of the earth; from the solitary promulgator of the reform in Germany, her advocates have become the host here represented, and this by virtue of the fact that every physician who investigated and was convinced exercised his inborn right to liberty of judgment. From her tiny beginnings, in 1810, Homœopathy has come to have to-day her thousands of practitioners and her millions of adherents, not so much by virtue of the special cogency of the reasoning by which her claims were supported, as through the visible and perceptible effects of her practice upon the sick. This practical

argument has a just weight with the people, and in proportion to liberty of thought and action among people and practitioners has been the rapidity of her growth. In this propaganda each practitioner was most efficient in the diligent, faithful, solitary performance of his round of duty. In caring for his business and his own interests, he was most effectually spreading a knowledge of the doctrines he professed.

The present epoch calls us to other labors. The duty of service in public hospitals and charities, from which we have hitherto been exempt, is now falling on us by reason of our numbers. The responsibility of medical instruction has always rested on physicians as experts. In other countries where the restrictions of governmental boards and the privileges of corporations so sadly hinder freedom of action on the part of our colleagues, and of opinion on the part of students who would investigate our method and join us if they had opportunity and dared, it would seem incumbent on our confrères to avail themselves of some way, however provisional and incomplete, to diffuse among the profession and instil into the young a knowledge of the truth we cherish. And it is a satisfaction to believe that the fact of this convention has proved, if not an incentive, yet a great encouragement to such effort in more than one European country. In our own land, where we have long had schools of our own established by our colleagues and their clients, the people are beginning to call on us for instructors in the universities which they have founded.

We must be prepared to meet these calls and to fulfil all these duties. They require certain qualities in addition to those which suffice for the isolated practitioner: capacity to work with others; patience to bear and forbear; perseverance to labor persistently for what we believe to be right, and submit patiently until the right can be realized; magnanimity to prefer the good of the whole to the triumph of our own; in a word, we need to substitute *esprit de corps* for *esprit de soi-même*. Surely Milton was right when he said: "A little generous prudence, a little forbearance of one another, and some grain of charity, might win all our diligences to join and unite in one general and brotherly search after Truth."

Nor should this cultivation of a faculty for associated labor be confined by the boundaries of any single nation. The "world is our field;" and this convention shows that we may profitably and effectively unite our efforts with those of our most distant colleagues for the development and advancement of the science of Therapeutics.

The remaining sessions of this convention will be devoted to scientific discussion, free, I sincerely hope, from uncharitable reflections on those of our profession who do not believe as we do.

The subjects of discussion include some on which we differ widely, and some of us feel deeply. May I bespeak the largest tolerance for differences of opinion, and the completest freedom of expression. Thus only shall any of us get at Truth. For I firmly hold, with Milton, that

"Though all the winds of doctrine were let loose to play upon the earth, so Truth be in the field, we do injuriously to mis-doubt her strength. Let her and Falsehood grapple; who ever knew Truth put to the worst in a free and open encounter?"

SCARLATINA PUERPERALIS, BY PROF. R. OLSHAUSEN.—Primiparæ, on account of their youth and when they never had scarlatina, are more disposed to it than multiparæ. During pregnancy very few take the disease; the exanthema breaks out during the first days of the puerperium; its course may be light or very violent, or even fatal during the first forty-eight hours. The mortality is a high one (48 per cent.). The sooner post partum the scarlatina appears, the more dangerous the case. It is characteristic of scarlatina puerperalis that the exanthema breaks out at once over the whole body, and follows rapidly the beginning of the fever. In malignant cases the eruption shows a livid, bluish-red color on the trunk, continuing till death ends the scene. The copious perspiration causes sudamina, and this scarlatina miliaris, as it is erroneously called, hardly ever shows an ichorrhæmic character. Angina is light or entirely absent; diarrhœa at the same time is of evil omen. Lochiæ are mostly not disturbed; sometimes the uterus is slightly sensitive to pressure; inflammatory abdominal affections are rare and more accidental complications.

The excessively short incubation of scarlatina during the puerperism, coming on in four-fifths of all cases up to the third-day post partum, may be explained, that the infection took place a long time before labor set in, but that the disease only breaks out post partum.—Archiv f. Gynecol., ix, 8.

General Record of Medical Science.

Causes of Mental Diseases and their Prevention.—Dr. E. Hitzig considers *Heredity* as the most frequent cause. The same relations hold here good as in other organs of our body, and we find thus in the descendance, alternating with mental diseases, diseases of the spinal cord, epilepsy, in fact all kinds of neuroses. But why some children of mentally affected parents become insane and others escape, why the morbid disposition remaining latent in the progenitors ceases to remain latent in their offspring, what kind of protoplasm it is, leading after awhile to mental disease, and what outside influences may cause to awaken afresh the slumbering germ, are questions which still await their solution. As a *prophylaxis* he proposes that such morbidly predisposed children, usually very bright and quick, must be kept back in their education, mind and body must grow up together by slow degrees, especially as overfond parents are greatly inclined to show off with their prodigies of children. A second great cause is *religious fanaticism*, which, as it is well known, produced already whole epidemics of insanity. *Alcoholismus*. Children of potators show a great disposition to diseases of the nervous system. Without denying the benefit of temperance societies, he insists on asylums for potators, where, deprived of their personal liberty, medical treatment can be instituted to eradicate this vicious habit for strong drink. The case is so much worse, where alcoholismus and heredity are combined.—*Deut. Med. Wchschrft. Feb. 1876.*

Relative Frequency of Cardiac Diseases in Insane Persons.—Dr. L. Witkowsky only considers (1) considerable (left) hypertrophy (of $\frac{1}{4}$ to 1" of the muscle), and (2) valvular diseases. The frequency will differ according as old or only recent cases are examined, inasmuch as cardiac diseases are more frequent in old cases, and (3) climacteric relations are of great influence in the production of cardiac diseases. They were preceded by melancholy, mania, and paralysis. A heart-affection peculiar to suicides cannot be detected. In the skull we find, nearly without exception, thickening and dulness, vascularizations and hæmatomata, or at least hyperæmia of the meninges, with simultaneous anæmia of the brain, so that mitral deficiencies cause a kind of dissonance in the quantity of blood contained in the brain and meninges. These meningeal affections are clearly based on stasis in the circulation. It is well known that persons suffering from affections of the heart are frequently irritable and morose, and this ill-humor exacerbates with an increase of their heart-symptoms. Valvular diseases also act on the brain by embolism of the cerebral arteries. Mental disturbances, deliria, loss of consciousness, aphasia, etc., may be caused by emboli. *Vice versa*, the heart may become disturbed from the mental trouble. Circulatory disturbances are nearly always observed in every mental affection, especially in recent cases. The combination of a hot, red head, with cool, livid, slightly swollen hands and feet, weak action of the heart, the sounds hardly perceptible, a miserable pulse, and a tendency to boils are characteristic. We often meet here murmurs instead

of the heart's sounds, neither caused by anæmia nor by disturbances in the respiration or in the vasomotor nervous system. Friedreich considers as the cause of these murmurs the fatty degeneration of the muscles of the left ventricle. These murmurs are as frequent in states of exaltation as in those of depression, more frequent in men than in women, although the latter suffer so frequently from high-graded anæmia. Jacobi already mentions the changeable nature of the pulse during a maniacal paroxysm, rising to 130 in the minute, or falling to 70-48 beats. Guislain considers these anomalies of the heart's action as a symptom of long-continued psychosis, not as its cause, and supposes that the dilatation of the right ventricle might originate from a stasis caused by the screaming of maniacs. Other authorities lay far more stress on the disturbances in the vasomotory system, which cause secondarily heart affections, *e g.*, hypertrophies. But it must be acknowledged that such cardiac affections imprint a peculiar expression to the psychosis; the bloodvessels are full, rigid, and tense; there is a constant desire to move about, a kind of anguish, with dulness of the mind. Morbus Basedowii, which we know to be based on disturbances of the sympatheticus, has also been observed in women to run its course in the form of mental disease. In most of the observations the cardiac affection appears as an accompaniment of more or less deep disturbances of the nervous system. Organic affections of the heart and valvular defects are far more independent in relation to the nervous system, and where such organic affections are of ætiological importance in relation to a psychosis, states of depression will prevail.

We may finally emphasize, that *psychosis with cardiac affections are characterized by a kind of involuntary restlessness and unsteadiness which may even increase to criminal actions.*—Schmidt's Jahrb., 1, 1876.

On the Treatment of Deep Atheromatous Cysts of the Neck, by Prof. Esmarch.

—The contents of the cysts are emptied with a fine trocar; the cyst is then with the trocar so often injected with a diluted solution of Carbolic acid, till the water runs out perfectly clear. He then injects ten to twenty grammes of Lugol's solution (Jod., Kali jod aa 1.25, aqua dest. 30.0), and tries to bring the fluid in contact with every part of the internal surface of the sac. After a few minutes, he allows the fluid to flow away, and then removes the canula of the trocar. The patient is dismissed, with the order to appear again in six to eight weeks. After the injection, the cyst fills again rapidly, and where all the fluid is not perfectly absorbed during this interval, the whole operation is repeated. After six months, the whole cyst shrinks to a small nodule. Esmarch considers the cause of the failure of this plan in other hands that they did not possess patience enough to await the result.—Langenbeck's Archiv, 19, p. 224.

On Hepatitis of Hot Climates, the Consecutive Hepatic Abscess and its Surgical Treatment, by Dr. Sachs.—Ætiology. Women enjoy nearly an immunity from this disease. Of one hundred and thirteeu cases, only six were observed in women. Budd affirms that hepatic abscesses develop themselves from dysentery, inasmuch as the small inflamed veins absorb pus, or softened tissue, or

foul-smelling gases, or fluid contents of the intestines, and then they are carried by the portal vein into the liver. Sachs, who observed many cases in Egypt, on the contrary, believes that dysentery frequently complicates hepatic abscesses. It is true, says Sachs, that some forms of helcosis, here dysenteric ones, offer favorable conditions for the formation of thrombi and embolies, but all cases and both sexes are equally prone to dysentery, and thus we must look for another explanation.

Symptomatology.—Persons suffering from purulent hepatitis, show plainly the severity of their diseased state; their color is sallow (icterus is nearly always absent), the sclera of a peculiar, dull, waxy color. Inspection mostly shows a strong elevation of the right hypochondrium. The patients prefer to lie on their back. In relation to percussion, he remarks that inflammatory swellings of the liver develop themselves at first upward, and only after awhile, when the resistance from above has reached a certain degree, it manifests itself downward. During the formation of the abscess, we mostly meet a certain degree of tension of the abdominal muscles, diminishing in a later stage. The well-known pain in the shoulder is caused by the phrenicus. Sleeplessness, and the peculiar, furry, moist coating of the tongue are characteristic. When the hepatitis does not pass the stage of exudation, a cure by the absorption of the infiltration is possible, but the absorption of an abscess is very rare. The abscess may become encysted, but death sooner or later sets in with continued febris hectica. The abscess may also spontaneously discharge outwardly or into neighboring organs. According to the experience of Sachs, such a discharge through the lungs is frequently followed by a rapid cure.

The formation of the abscess manifests itself by the diminished painfulness of the entire organ, the pain, as it were, becomes localized on a certain spot. The point of the finger pressed into such a focus finds here a kind of giving way under the pressure. Middleorpf's Akidopeirastic is of great value in the treatment of hepatic abscesses. It prepares the way for the operation, inasmuch as the instrument lying in the gland causes local adhesive inflammation between the two sheaths of the peritoneum, and thus fixes the hepatic focus to the abdominal wall, separating it fully from the peritoneal cavity. Where a focus or tumor is situated in the abdominal walls, and thus outside of the abdominal cavity and not connected with it, the inserted explorative needle or trocar will remain immovable even during every respiratory movement; but where an abscess or tumor is situated inside of the abdominal cavity, then the needle inserted into it will show pendular oscillations coinciding with the respiration. Where the liver has not yet become adherent to the abdominal wall, the instrument must not be removed till adhesion is finished. Sachs puts around the head of the needle or of the trocar a thread firmly, and sews it on to both sides of the abdominal wall. Sachs enters the tumor first with an explorative trocar, and makes a second puncture with a larger trocar. The canula remains, and is sewed in. The abscess must only be gradually emptied. Thus all chance of a troublesome hæmorrhage is diminished, also the bursting of biliary ducts situated therein, and especially the pulling and dangerous ruptures of the newly-formed adhesions. Anæsthesia

is unnecessary, and contraindicated on account of the vomiting which Chloroform might cause, and thus endanger the adhesions. After two or three days the canula can be changed for an elastic drainage-tube, through which injections can be made in the cavity.—*Langenbeck's Archiv*, 19, p. 235.

A Danger from Aspiration, by Dr. Pingaud.—A man suffered from a fracture of the left frontal eminence. The deeply pressed-in fragments could only be raised by trepanation. After ten days, a cerebral abscess manifested itself. The surgeon punctured the dura mater with Dieulafoy's aspirator, and pressing the needle into the brain, a large quantity of pus was discharged. The canula remained for a few minutes yet in the cavity, in order that some pus may yet flow out, but instead of it blood flowed, and simultaneously severe apoplectic symptoms manifested themselves. The cavity of the abscess, now filled with blood, was opened with a bistoury, when the symptoms of pressure decreased. The patient died the following day. Autopsy revealed blood extravasation in the left lateral ventricle, and a fresh coagulum in the fourth ventricle.

The sudden diminution of pressure also caused hæmorrhage in a second case, a congestive abscess in the pelvis. After the perfect evacuation of the abscess, blood entered the syringe, and the tumor, which had disappeared, was again present. Here the accident was not followed by an unfavorable result, as the extravasation was gradually absorbed.—*Gaz. hebdomadaire de Méd. et de Chir.*, Oct. 1875.

Retinitis e morbo Brightii—Dr. Hirschberg observed twice the appearance of retinitis e morbo Brightii in cases of entirely chronic nephritis, where the visual disturbance was the first symptom which disturbed the patient. In one case a man of fifty-three years came into the clinic on account of weakness of sight, which set in about four months ago after catching cold. The papilla was dull; the veins swollen; striated hæmorrhages in the neighborhood of the papilla; on the centre an exquisite figure of a star. The urine contained no albumen. Eleven days after coming under treatment a uræmic paroxysm, with convulsions and unconsciousness, set in, and only two weeks afterwards albumen could be detected in the urine. The man died. Another male patient of thirty-seven years was under treatment for a cerebral irritation, with diminution of sight. Considerable diffuse dulness of the retina; white spots in the neighborhood of the papilla; to the right small hæmorrhages. The urine contained large quantities of albumen. During the course of the disease the conjunctiva became the seat of hæmorrhages. The patient died after being five weeks under treatment.—*Zeitschrift f. Pract. Med.*, 4, 1876.

Stretching of Nerves in Nervous Disorders of Central Origin, by Professor Nussbaum.—Victor W., thirty-five years old, has paralysis of the lower extremities for the last eleven years. Sensation is greatly diminished; voluntary motion entirely suspended; bladder and anus are also totally paralyzed, so that the urine dribbles away from him by day and by night. He fell down about seven feet, struck the sacrum on a block of wood, which caused the

disease. Although tenderly cared for and kept very clean, the buttocks and both sides of the pelvis showed deep-seated scars from decubitus. He also suffered continually from clonic spasms of the lower extremities, which a thousand times during the day involuntarily jerked the knee towards the chest, and though painless, was at least extremely disturbing and annoying. The upper part of the body is perfectly healthy. Everything had been tried during these eleven years, but without the least success. The patient was chloroformed; the narcosis was quiet and normal. The inguinal lumbar and sacral region was carefully cleansed; the skin washed with a solution containing 5 per cent. of carbolic acid, also all our hands; all instruments put into the same solution, and then the carbolic spray applied to the inguinal region. The skin was then incised, as when the arteria curialis is ligated at the lig. Poupartii; the fascia divided on a director; the nervus curialis isolated from the artery and vein; the right index finger hooked under the nerve, and strongly raised so that it moved the whole foot, and then moved the nerve with thumb and index finger from the periphery to the centre, and from the centre to the periphery, as if I wished to draw it more out of the spinal column. It really seemed as if the nerve became longer. The wound was then carefully washed with carbolic water; a drainage put into the lowest corner, and a suture put in with antiseptic silk. A compress soaked in a solution of 5 per cent. carbolic acid was then laid over the inguinal region, and the patient laid upon his stomach in order to get at the ischiadicus. After fully carbolicizing this region an incision was made between the tuber ischii and the trochanter major, and we found the nerve strongly imbedded in fat. After its separation the same procedure was repeated, and then both wounds, strictly according to the rules of Lister, bandaged with silk, gauze, and mackintosh. When the patient awoke and was brought to bed he joyfully exclaimed, "The spasms are entirely gone from that leg!" After two weeks the wounds were entirely healed, and then the same process repeated on the other leg. It was a great gain that the lower extremities could be kept at rest, and with orthopædic help the patient, who for fully eleven years never put his foot to the ground, walked now again with the aid of his crutches.—*Aertz. Int. Blatt*, 8, 1876.

Copaiva in Croup, by Dr. Rodecker.—A child, four months old, was attacked with spurious croup of rather a dangerous character. But a few thirty-drop doses promptly relieved the stridulous breathing, and a continuation of *Copaiva* cured the croup entire.—*St. Louis Medical Journal*, March, 1876.

On the Action of Natronsalicylates, by Drs. Furbringer and Schultze.—It reduces the temperature, and produces perspiration; nausea and vomiting is observed in several cases; troublesome and obstinate surring in the ears, with difficulty of hearing; diminution of visual power (less frequently); slight vertigo and headache are frequent; dyspnoea sometimes; three patients suffering from phthisis complained of a contraction in the throat and dryness of the fauces; acute transient nephritis was twice observed; no symptoms of collapse. Dr. Pel failed to see any benefit from it in intermittens.—*D. Archiv f. Klin. Med.*, xvii, 2 and 3.

Aneurism treated by Injections of Ferrum sesquichloratum.—Demeçé treated a patient, suffering from aneurisma art. tib. ant., low down the leg, for several weeks, with compression of the aneurism, but without result. He then injected five drops of a solution of Ferrum sesquichloratum of 15° with a hypodermic syringe, using at the same time compression of the art. tib. ant. above the aneurisma, and of the art. dors. ped. below. The aneurism became hard and gradually dwindled away. Verneuil treated in the same manner an aneurism in the palm of the hand from a punctured wound, after compression of the art. uln. and rad., as well as of the brach., had entirely failed. He bandaged the fingers tightly, pressed a key-ring firmly against the aneurism, and injected then nine drops of a solution (Ferr. sesquichl. sol., 30°, grm., 10.0; Aqua dest., 20.0; Natr. chlor., 2.0). Tellaux also cured an erectile tumor on the palm of the hand by the same injection. During the operation the circulation was interrupted by constriction of the arm with an india-rubber tube. Le Fort does not favor the use of such injections in the aneurisms of capital arteries of the extremities, whereas he witnessed great benefits in aneurisms of arteries of the second degree.—*Gaz. des Hôp.*, 130, 1875.

Oxygen as Antidote to Phosphorus.—Koehler remarks that freshly rectified oil of turpentine is no antidote to Phosphorus, but that we have to use the common article, which contains the necessary quantity of oxygen. Thiernesse and Casse made experiments in that direction. They poisoned dogs with Phosphorus, and when symptoms of intoxication with Phosphorus set in, they injected in the vena saphena oxygen in large quantities, up to 800 centimetres, and succeeded in nineteen out of twenty-two cases to save the animal. The operation is without danger, but must be done slowly.—*Bull. de l'Acad. royale de Méd. de Belge*, ix, 1.

(Our indication for Phosphorus in pneumonia is: sanguineous infiltration of the parenchyma, red hepatization, *face livid*, brickdust expectoration, or in still more severe cases, the second stage of typhoid pneumonia with gray hepatization and purulent infiltration, all cases clearly showing the want of the necessary quantity of oxygen to sustain life.)

On the Poisonous Substances of Ustilaga Maidis, by Prof. C. Lombroso.—Prof. Brugnatelli extracted from the oil, soluble in alcohol, a substance, which nearly had all the chemical and nearly all the physiological quantities of Strychnine. In frogs the tetanic symptoms were accompanied by narcosis and paresis; in chickens it only produced paresis, convulsions of the head, and an inclination to walk backwards. As it also produced death in several chickens after preceding paralysis of the extremities and clonic convulsions, and the same in acrids and locusts after preceding paralysis of the feelers and of the extremities, in fishes after paresis and stupefaction, in white rats and mus sylvaticus after paralysis of the anterior extremities, thus after manifestations, which are not characteristic of Strychnine, Lombroso suspected that there must be another ingredient which produces the narcotic and paralytic manifestations, which he found in a watery extract, which does not show the qualities of Strychnine, but causes narcosis or death with clonic convulsions. The oil and the watery extract act corrodingly on the tissues.—*Med. Newigk.*, April, 1876.

Editorial.

The World's Homœopathic Convention of 1876, under the auspices and control of the American Institute of Homœopathy. Held at the First Reformed Church, in Philadelphia, June 26th to July 1st, 1876.—Our thanks are due to Rev. Dr. Wylie and his congregation, for the liberality with which they put their splendid and eligible edifice to the use of the Convention. During the heated term it was really a grand boon to while away the hours of study under a roof, which by its large dimensions kept the house comfortably cool, although visited by nearly five hundred members of the Institute and their friends.

The American Institute of Homœopathy was promptly called to order, at 2 o'clock, P.M., by the President, Dr. Carroll Dunham, of New York, and after some preliminary business the World's Homœopathic Convention was declared in session. When the report from the Committee of Arrangements was read off, we felt astonished and chagrined at the meagreness of the contributions to defray the expenses of the Convention. The "Excelsior" State proudly upholds the device on its banner, and New York alone contributed nearly as much as all the other States together. Our little neighbors, New Jersey and Rhode Island, did nobly, and handed their quota to the treasurer at an early date. But where was the liberality of the great West? The rich and teeming State of Ohio ought to feel ashamed at the negligence with which they failed to contribute their quota, and to plead poverty the physicians of that State could never be guilty of. Where is Indiana, where opulent Illinois, with prolific Chicago at its head? There must be a screw loose somewhere, for several Western physicians acknowledged that they never were called upon for this necessary contribution, and their State pride felt wounded at the meagre show which their States will make in the report, printed in the forthcoming *Transactions*.

The report of the Treasurer, Dr. Edwin M. Kellogg, showed a healthy state of the finances of the Institute, so that the few thousand dollars contributed can be applied for the printing of the *Transactions*; but we earnestly hope that the committee, having the essays in hand, will liberally use the pruning-knife whenever and wherever their judgment requires them to do so. "A kind word turneth away wrath." Our genial Treasurer knows the truth of the proverb; he always has a good word for the delinquents, and by his suavity he gathers in the dues, where others would surely fail. We are glad to know that by the votes of the regularly attending physicians, Dr. Kellogg may consider himself elected Treasurer of the Institute for all time to come. May your shadow never be less!

After the Convention had adopted the order of business, and the rules of order of the Institute for the government of the Convention, the President of the Convention, Dr. Carroll Dunham, delivered his address.

At the twenty-third annual meeting, held at Chicago, June 8th, 1870, our good friend, Dr. C. Dunham, delivered the annual address: Freedom of Medical Opinion and Action, a Vital Necessity and a Great Responsibility.*

* Reprinted in the North American Journal of Homœopathy, vol. i, new series, p. 103.

This address has been severely criticized on the one hand, and just as much praised by others—misunderstood by both sides. The exclusives feared that freedom might produce licentiousness, and let their arrows fly against their more liberal-minded brethren, though it cannot be denied that some of the friends of liberality of opinion and action are really becoming too liberal in their forgiveness. But our noble champion was not afraid to take up the gauntlet thrown at his feet, and in his usual masterly manner defended that freedom of medical opinion and action, which he had openly declared, six years ago, to be “a vital necessity, and a great responsibility.” Words as true as ever uttered by man—“a vital necessity”—for we owe, as physicians, a duty to our patients to neglect nothing, which might aid in restoring health to the sufferer, “a great responsibility,” for, as homœopaths, we owe it to our school and to our clients to uphold the great principles given unto us by Hahnemann, and to carry them out fully and honestly. “*Mach's nach, aber mach's recht nach,*” must be our guiding-star; let us be strict to ourselves; let us be convinced, before God and man, that we adhered to the teachings of the master in every sense of the word, and there will be hardly a case where homœopathy will not suffice to restore that equilibrium which we call health. Herein lies the great responsibility which each has to answer for himself, and for which he is responsible to his Maker; but being severe and rigorous on ourselves, it ought not to prevent us from being merciful on those who cannot yet come up to that high standard of homœopathy which ought to be the aim of every faithful disciple of Hahnemann. *E pur il muove*, and still it moves, must be our opinion in scientific matters; no bigotry anywhere, but rather let us move onward and forward, till *similia similibus curantur* becomes the guiding star to every therapeutic measure.

Although five thousand copies of this address were ordered to be printed for general distribution, still we considered it our duty to print it in full in this number, so that it may be preserved for all times, as pamphlets are very apt to be mislaid and lost.

After the adjournment of the Convention, the physicians went to pay their homage to the magnates of our school residing at Philadelphia. It is really a Mecca to learn what homœopathy means. Some went to Father Hering, others to Guernsey, to Lippe, Raue, Neidhard, and others. Many of us made several calls during the evening, and were everywhere received with genuine Pennsylvanian hospitality.

Tuesday, June 27th. Over three hundred physicians registered to-day. A goodly attendance, and every one imbued with the spirit to take home with him some crumbs of wisdom. After a short business meeting of the Institute, the World's Convention was declared in session, and proceeded at once to the consideration of the essays of the department of *Materia Medica* and Therapeutics.

Dr. Korndorfer, that able disciple of Father Hering, opened the meeting by reading a short extract from the paper of Dr. Hering, dividing the history of medicine in seven periods. We hope to see the paper in full in the *Transactions*.

Next in order was a debate on the paper of Dr. Sharp, of England, on the “Foundations and Boundaries of Modern Therapeutics.” It was really a

misnomer to call it a debate, as every gentleman, who ascended the rostrum, read his own essay, without caring much whether it had anything to do with the paper to be debated or not. In so far as it related to real debate, the Convention was a miserable failure. It is perhaps a failure of human nature, that every one delights in hearing his own voice, and many a physician, coming perhaps hundred of miles to attend the Convention, found himself debarred from giving his opinion (an opinion, at any rate, which *he* considers worthy to be immortalized in the *Transactions*). It is true that a general discussion was allowed to be in order, as soon as the "so-called" regular debates had closed; but this subterfuge would hardly go down, as after four hours' close listening, and sometimes to some tedious essays; the stomach would assert his rights, and an adjournment moved, seconded, and carried. We are sorry to say that, as far as debates were concerned, it was a failure, and we hope to see the Institute returning to the old-fashioned debate, as we had it in former years.

But let us not digress any more. Dr. Dake, of Nashville, began to read an essay, showing that therapeutics are not yet a science, that they will become such, when—alas! his fifteen minutes were over, and the Convention would not allow him to continue. Were they tired of listening already?

Dr. Hughes, of England, followed. He considers the action of small doses the opposite of large ones, but every drug affects the organism only in one way. In our cures we have only an apparent similarity; the diseased action and the curative action of a drug may be compared to the vibration of waves. (We meekly acknowledge to have failed in understanding the worthy Doctor, but that was our fault.)

Dr. Conrad Wesselhœft explained the *modus operandi* of homœopathic remedies, that the instinctive vital force becomes more intensely diseased by the drug-effect. There are opposite directions of equals, it is a restoration—fifteen minutes elapsed, and the gavel announces to the essayist that his time is over.

Dr. Adolph Lippe opened his essay with the question: "Has Pathology improved therapeutics?" He, the undaunted and conscientious warrior for pure homœopathy, went for Sharp sharply, and showed that, inasmuch as diseased conditions are ever varying, it would be wrong to select the remedy from mere pathological changes, to look to the organs and tissues as the principal agent, whereas he who relies on the rules as laid down by Hahnemann, will certainly cure by infinitesimal doses. (Poor me! how I felt inclined to pitch into the battle in defence of progressive pathology, how I wanted to deliver a eulogy on the late Traube! but, dry up! was the rule, till your time cometh.)

Dr. Owens followed. By that time I felt like the student in Faust; my head was all in a muddle, my nerves had lost their tension, and hankered after that nasty weed, and with some other companions in distress, we left for parts unknown (to us), *i. e.*, for the Centennial grounds. The moral of that story would read, never have a meeting of the Institute where its members can be lured away from scientific discussion. Our only consolation is that we can read by and by the outpourings of Allen, Cate, Farrington, Baxter, Knerr, and Kenyon, and at our leisure profit by their instructive essays.

We forgot to mention, that at the motion of Dr. J. T. Talbot, of Boston, the Convention honored itself by appointing Drs. Constantine Hering, J. F.

Gray, Clotar Müller, of Germany, and H. Hughes, of England, honorary Vice-Presidents of the Convention.

An afternoon given to sight-seeing, and we would advise every physician to lay aside his pellets for a week or so, and honor the Centennial Exhibition by his presence. It is worth the money, worth the time, and your patients will be better by your absence, for the knowledge thus gained will benefit you through life. How vast are the improvements everywhere visible, what constant progress in science and art, and how little does the solitary traveller on earth understand of all he sees!

In the evening a goodly company met at the rooms of the Union League, the invited guests of Dr. Adolph Lippe. It was really a centennial feast of reconciliation, and joy beamed on every face to see those two coryphæi of our school, Drs. Hering and Lippe, sit on friendly terms again at one table. It was an evening not easily to be forgotten by those who had the honor to be invited. After the good things set before us had been stowed away, the flow of reason commenced under the auspices of the master of ceremonies of the day, Dr. John Guernsey, and very courteously did he fill his place. Dr. P. P. Wells, of Brooklyn, N. Y., replied to the toast "Homœopathy," in his usual felicitous manner, remarking that every one can only see through his own spectacles, which hardly ever fit anybody else, and all these little differences of opinion only arise because we wish that everybody should look through our own spectacles, which is an impossibility. Let us agree to disagree on minor points, but let us hold fast to the essentials of our school, and homœopathy will be the gainer by such fervent unanimity. Our genial friend, Dr. Clotar Müller, the editor of the *Internationale Presse*, spoke in German, and Dunham kindly acted as interpreter. Our warmhearted guest extolled America and American homœopathy, and that the old fatherland could be proud of the colony which has already overshadowed the progenitor. The toast "Our Host," was drank with three cheers and a tiger, proving that Lippe had struck in this reunion a tender chord in every heart, and we all blessed him for the deed. The toast "Our Foreign Guests," was responded to by Dr. Hayward, of England, repelling the idea of being considered a foreigner by his "American cousins," and science knows no country. The seeds of friendly intercourse will bring their fruit in good season, and there is really no better place for smoothing down the acerbities of opinion than a friendly chat over a good table.

Wednesday, June 28th, was the day set apart for the department of Clinical Medicine. Dr. P. P. Wells struck the keynote on the treatment of diphtheria, by showing that there are cases showing only constitutional symptoms, with very slight or no manifestations of the throat, followed by paralytic symptoms, especially of the lower extremities. Such constitutional symptoms are often not in ratio of the intensity of attack, and cases are on record which led to insanity, idiocy, and death.

Dr. C. Pearson, of Washington, followed, condemning the stimulating treatment recommended by Dr. Joslin in his paper, and indorsed by Wells, and complained of the generalizing tendency of the age.

Paine, of New York, Mitchell, of Newburg, Swazey, of Springfield, microcosmized the Convention for a couple of hours, without giving anything new

nor settling the question whether the fungi are the cause or effect of the disease. Really the time might have been employed to better purpose.

Dr. J. C. Morgan, of the University of Michigan, spoke to the point on intermittent fever. By speaking off hand he found far easier an attentive auditorium, but he also spoke well, showing clearly that the miasma, or whatever it may be called, must find the soil prepared, or else no intermittens will set in. In a lucid manner he explained the hygienic manner of living in order to escape this plague of our Western and Southern States.

The paper of Dr. Jousset on latent pneumonia elicited some discussion. Drs. Burgher, of Pittsburg, Hayward, of England, and Jones, of Taunton, giving in their essays their opinions *pro* and *con*. Nothing new was brought forward. Lilienthal, of New York, recommended for closer study the excellent paper of Meyhoffer on "Primary Congestion (active or passive) of the Lungs," as thus we might escape the danger of giving the wrong remedy.

After an afternoon profitably spent at the Centennial Exhibition, a goodly company assembled in the evening at the house of Dr. Adolphus Fellger, where Clotar Müller had found a hospitable home, and the hours passed pleasantly in a free and easy manner. Old acquaintances were renewed, new ones formed, and this mutual interchange may truly be considered one of the greatest, though only incidental boons, of our annual gathering.

Thursday, June 29. After some preliminary business of the Institute, the Convention proceeded to the consideration of the essays of the department of surgery.*

The paper of Dr. J. H. McClelland, of Pittsburg, on Syphilis, was discussed with great interest, and about an hour's extra time was devoted to it by consent of the Convention, whose members had found out by this time that more practical hints can be gathered by a free and offhand exchange of ideas, than by the mere reading of a prepared reply, when it was closed by the author. Several prominent physicians gave their experience in the treatment of chancre and chancroid, with both low and high potencies and local treatment advocated by many of the disputants.

The paper on Uro-Lithiasis, by Dr. Bojanus of Russia, was mentioned by the President, but not discussed by the Convention. The collection of seventy-two vesical calculi, which were removed by the author, were in a large case and on exhibition.

We are grateful to Dr. Caroline Youman for the following résumé:

Dr. Beckwith, of Cincinnati, maintained that the simple chancroid might become a true or Hunterian chancre, thus differing from the author of the paper, and indicated his method of local treatment. Dr. Clifton, of England, prefers internal medication, and gave his treatment clear and to the point.

* We candidly acknowledged our sins. In company with some German friends we dedicated that day to the great Exposition, especially as we were obliged to leave for home the next day. We requested since then Dr. Bushrod W. James, of Philadelphia, to get us a synopsis of that day's doings from the Secretary of the Institute, but Dr. McClatchey keeps the discussions and papers so safely under lock and key that Dr. James could not comply with my request, and our New York friends kindly tried to fill up this deficiency from memory.

Dr. Biggar, of Ohio, on the contrary, clings to local treatment. Dr. Helmuth, of New York, gave a practical résumé of treatment, insisting on no delay or waiting for symptoms to appear, and on the necessity of local treatment, prophylactic as well as curative. Dr. Varona, of New York, submitted that before syphilis could be properly and successfully treated, it should be properly understood, and that the poison may be considered a living bioplast, which, as it was absorbed and entered the circulation, determines the sore to be a true chancre or only a chaneroid. Our English friends, Hayward and Hughes, followed with some brief and pertinent remarks, and the latter called attention to the fact that Mercury was not homœopathic to syphilis or any of its symptoms. Dr. Farrington, of Philadelphia, stated that he had seen syphilis cured with the forty thousand and two hundred thousandth of Iodide of Mercury, and a papular eruption caused by it in proving, and Dr. Macfarlan, of the same city, affirmed the statement.* Dr. Hughes suggested that the cures and eruption might be due to the Iodine and not to the Mercury, especially as Dr. Macfarlan preferred the Mercuric to the Mercurous Iodide.

Dr Beebe's paper on Benign Tumors was next in order. Dr. Helmuth opened the discussion, and particularly called the attention to the obscurity of cases of cure on account of the difficulty of correct diagnosis, as evidenced by the warning of Bichat to students, not to give a diagnosis on a tumor until within the hand; for whenever a tumor is cured by resolution and the fact reported, the important and often unanswered question of the correctness of the diagnosis remains; he also stated the importance of the differential diagnosis between benign and malignant tumors, saying that the former were composed of tissue like that in the body while the latter were not. Talbot, of Boston, saw good effects even in malignant tumors, from the internal use of Arsenicum, Conium, Asterias rubers, and prefers Calendula as a local application; McClelland, of Pittsburg, James, of Philadelphia, Lungren, of Ohio, Varona, of New York, followed with pertinent remarks, and the fact is worth recording, that the surgical day so far carried off the palm, as being the most practical and most instructive.

Friday, June 30th. The Institute opened by the election of officers for the ensuing year, and E. C. Franklin, M.D., of Missouri, was elected President; T. P. Wilson, M.D., of Ohio, Vice-President; R. J. McClatchey, M.D., of Pennsylvania, General Secretary; E. M. Kellogg, M.D., Treasurer; and J. Guernsey, of Pennsylvania, Recording Secretary.

Place of meeting, Chautauqua Lake, New York.

The Department of Obstetrics and Gynæcology being the order of the day, the discussion opened with the essay on "Puerperal Fever," by Dr. Woodbury, of Massachusetts. Dr. S. P. Burdick, of New York, remarked that he found nothing new in the paper, and that in past ages everything was considered as puerperal fever, which attacked a woman during her puerperal state. The New York professor took the standpoint, that we should classify conditions, and he considers as puerperal fever only a septicæmic condition. The

* Some mischievous members of the Convention observed a great deal of doubtful head-shaking, especially from that class given to external applications and material doses. Never mind; who ever knew Truth put to the worst in a free and open encounter?

sepsis may communicate itself to the cavity of the uterus, and we have endometritis, or the seat of the infection may be the vulva, vagina, and spread hence to the submucous tissues, and we have parametritis, or to the serous covering, and we have perimetritis. The diagnosis must be correctly made by internal and external examination, for whereas the treatment of simple peritonitis needs remedies like Acon, Veratr. vir., Bell., Bry., sepsis requires Lach., Crotal., Veratr. Baer, of Indiana, followed, and gave an excellent synopsis of the remedies required in the treatment of puerperal fever. Ludlam, of Illinois, indorsed the first speaker, and considers true puerperal fever a septicæmic state. Bacon, of New York, gave his experience of what he saw of puerperal fever at the large lying-in hospital of Vienna.

Another interesting discussion on Professor Ludlam's paper on "Membranous Dysmenorrhœa," followed with a general debate by the members of the Convention.

It is a pity that the first two days of the Convention were frittered away without any general debate, and the two last days showed what could have been accomplished, if the members would not have been hampered by the action of its officers. May the World's Homœopathic Convention of 1876 be more successful!

OUR COLLEGES.

What on earth is the matter, in this our glorious Centennial year, with our colleges? We thought that after the harmonious gathering of the World's Homœopathic Convention in the City of Brotherly Love, the hatchet was buried, that we allow every one to see through his own spectacles, and that we not only claim for our practice, but also for our teaching, liberty of thought and action. In fact, we considered it always a good custom to have the different sects mixed up in our colleges, in order that the student himself may select the platform on which he intends to stand, till convinced of something better.

What is the matter in the Queen City of the West? The old Hahnemann Medical College issues its manifesto, that it is being reorganized on a homœopathic basis, and certainly the query is natural, Was it ever on any other than a homœopathic basis? The other wing, the seceders, constitute themselves a new faculty under the name of the "Chicago Homœopathic College." Gentlemen of Chicago, there is something rotten in Denmark; but we are glad that you washed your dirty linen at home, without parading it before the outside world.

The Hahnemann Medical College of Philadelphia has also changed some of its chairs, and the new occupants are excellent men. Duke, Farrington, McClelland, and Korndœrfer stand well with the profession at large, and will shed new lustre on that ancient alma mater of homœopathy.

The New York Homœopathic Medical College has nearly the same staff as formerly. We are sorry to miss the name of Professor Carmichael, who certainly stands unequalled as a lecturer of anatomy; but whose old bachelorship makes him as crusty as an old bear. The chair of anatomy, at any rate, is well filled by our young friend Doughty, and the addition of Ch. A. Bacon, who has resided for several years in Europe, as Professor of Histology, shows

that no pains will be spared to render the students well versed in the intricacies of the human laboratory.

Poor University of Michigan! Saints and martyrs belong to bygone ages! And eighteen hundred dollars are a mighty poor inducement for any one to fight your battles, ye physicians of the Wolverine State! "All work and poor pay,"—you know the rest. Three thousand dollars at least ought to be the salary of a professor, and you must give it, or else you will lose the men who have shed honor on your State and on our cause.

Alas, no room for any more, hence vale!

Reviews and Bibliographical Notices.

Insanity in its Medico-legal Relations, by A. C. Cowperthwaite, M. D., Philadelphia, 1867.—*Mens sana in corpore sano* is an old and true proverb. A physician, in treating a lunatic, has nothing to do with the soul of his patient, nothing to do with metaphysical sentimentalism; and if he intends to cure his patient, he must know what is the matter with him. The mind in health or disease makes itself known, to the outsider, only through the nervous system; and Voisin, in his *Les Maladies Mentales*, has done a great service to the study of mental diseases, by precisely locating in some part of the brain certain mental diseases, and proving the truth of his assertion by autopsies. May the physician and psychologist rest satisfied with the studies, which are possible for him to find out and to elucidate, without delving into the mysteries of the "unknown."

We never could understand that sentimentalism which tries to take mental diseases from pathology, and we are glad to see that the author puts lunacy in the same category as any other bodily disease. This is the standpoint, which every alienist ought to take before a court, and the laws of lunacy would then be changed to a sane condition.

All classifications of mental diseases appear to us lame and unsatisfactory. To us insanity is a diseased state in its totality, and all these divisions often appear as only different stages or different expressions of one and the same disease. Often do we find the same remedy indicated in a state of mania as well as in a state of melancholia.

Page 5, the Doctor says: "An alienist ought to be careful about giving a definition of insanity," and we would be thankful to know the reason for such refusal. We ought to be able at any time to define our position in a scientific manner, and in many a case we will be nearer the truth by defining insanity, "that state of the patient where, from wrong premises (the delusion), he makes to him justifiable conclusions, and acts upon them." Thus we overcome that great obstacle, a knowledge of right from wrong, as thus the patient may be fully aware of the criminality of his action, and still be not responsible for his crime, being unable to control the impulses of his diseased mind.

The question then looms up, according to such a definition, what shall we do with emotional insanity, or can a man be insane one moment, and the mind return to its wonted clearness immediately afterwards? Here the totality of the symptoms must be our criterion, the totality not only of the criminal's life, but even that of his ascendants. We would hear less of emotional and voli-

tional insanity, if we were at the millennium, or in the other words, if, Sparta-like, the state were enabled to bring up her children—yea, furthermore, if retrogression could be prohibited in the raising of the race.

The treatment of the insane, as far as our large asylums are concerned, is absolutely an insult to common sense. Our institutions, especially those for the poor, are overcrowded, and strict individualization therefore impossible. To feed and to clothe them, and to keep them from the sight of a humane civilized world, seems to be the whole idea of most officials, and the medical staff cannot therefore be blamed for the meagre statistics of its cures.

The “*no restraint*” does very well, but still there will be cases where restraint will be necessary and useful; a general law acts generally mischievous, and it must be left not to the hired nurse, but to the humane feeling of the attending physician, how far restraint is necessary. The question of *open air* has long been decided as one of the most material benefits in all sorts of diseases; and when we consider the “menagerie stench” arising from fifty or sixty insane people, it is only a wonder that a closed air could ever be tolerated. But *association with healthy minds*, this is the test of paternal state treatment, and without it we cannot cope with the steadily increasing numbers of our poor insane, or rather of the insane from the poorer classes.

As the book was written for the general public, homœopathy is left out. Let us hope that somebody will take it up here, and give us the therapeutics of insanity according to the principle of *similia similibus curantur*.

Therapeutics of Tuberculosis or Pulmonary Consumption, by W. H. Burt, M.D., of Chicago. New York and Philadelphia: Boericke & Tafel. 1876.—The title of the book is a misnomer, as there are several kinds of pulmonary consumption, and tuberculosis is only one of them. But as the book leaves pathology untouched, even this error might be forgiven. We acknowledge our great indebtedness to the compiler for giving us another “*pons asinorum*,” to make the therapeutics more easy. The only trouble is, that we might miss the totality of symptoms, miss even the *fons et origo malis*—a symptom of great value to our poor understanding—although disowned as anti-Hahnemannian by some of the master-minds of the profession. To us, poor sinners, the pathology of a cough is still of some importance, and where several remedies are seemingly indicated, will hold a decisive influence in the selection of the remedy. Thus we consider many a pulmonary consumption a curable disease, *e. g.*, such a one arising from a pneumonia, and especially from broncho-pneumonia, and *Lycopodium*, *Sanguinaria*, etc., have snatched many a victim from a too early grave. We also consider tuberculosis, even hereditary tuberculosis, if not exactly a curative disease, at least such a state, which, by atmospheric changes, diet, and hygiene, can be held back for years, and a reasonable amount of health enjoyed. I recollect a case, where two lovely maidens died from tuberculosis; their only brother, the head bookkeeper of his father's large business, gave already decided symptoms of the skulking enemy, when, at our advice, he relinquished business entirely, went to Minnesota, lived an outdoor life; this was eight years ago; that patient is hale and hearty in Minnesota, but must keep away from the dampness of the sea-air.

But even where deposits have taken their firm hold on the patient, absorp-

tion may still be possible, if the disease has not too far advanced. It is not the suppuration which kills the patient, for we have remedies enough to hold that in check, but the hectic fever, the night-sweats, the constant expectoration, reduces the vital force to such a low ebb, that finally the dreaded result must take place.

The treatment of tuberculosis is given in full, and the authorities quoted belong to the very best of our school. The indications are well laid down, and the book is particularly to be praised for the repetitions of the pathogenetic symptoms of the remedies. Dr. Burt thus judiciously tries to impress their full importance on all readers, but especially on our younger colleagues. One of the best chapters in the book is that of cough, and if we always thoroughly look to the nature of the cough, to the nature of the expectoration, to the time of day or night, and to the concomitant symptoms, we may in most cases rely in giving relief to our patients.

What asthma has to do with tuberculosis we can hardly understand, for here the attacks of suffocation come at irregular times, sometimes with long intervals, during which the patient enjoys nearly perfect health. Asthma is more frequently a disease observed in advancing age than among young people; the conformation of the chest differs entirely from that of tuberculosis, etc., etc.; but, after all, who cares whether the name of the book indicates its contents or not; at any rate, the reader will find more than he has a right to expect from the title, and hence we all may be satisfied.

Any book published by Boericke & Tafel, is sure to be well printed, and Burt's *Tuberculosis* makes no exception to the rule. May it find a ready sale, and not, like other valuable records, remain on the shelves for sale to the disgrace of the non-reading medical practitioners.

S. L.

Homœopathy in its Relation to the Diseases of Females, by Thomas Skinner, M.D., Liverpool, 1875.—Any one who considers Dr. Thomas Skinner an enthusiast or a dreamer, need only look at the worthy Doctor to find out the mistake. There is a good deal of positiveness in his character, and whatever opinion he embraces, he holds to it with his whole soul and with his whole big heart, till convinced of the error of his way; and then we always find such men magnanimous enough to acknowledge it. They are consistent in seeking for truth, but have not a particle of that mulish obstinacy which sticks to an error, because it was embraced years ago.

Dr. Thomas Skinner, for years the assistant of Sir James Simpson, and for a quarter of a century a close student of allopathic gynecology, cannot be accused of making many errors in the diagnosis of female diseases. When such a man throws away all local medicinal or surgical appliances, when such a man advocates the use of the speculum only as a means of diagnosis and for no other purpose, when such an experienced practitioner assures us of the sufficiency of pure homœopathic treatment for all curable female diseases, we are bound to believe him, but in following his steps we must also cling to the word of the master: "Mach's nach, aber mach's recht nach."

We congratulate our school on the accession of Dr. Skinner to our ranks, and we trust that our new convert will initiate many of his former colleagues in that thoroughly practical science of therapeutics which is generally known as homœopathy.

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Original and Translated Papers.

ARTICLE VI.—Anæmia Perniciosa.

BY PROF. H. QUINCKE.

ANÆMIA is only a symptom, in most cases only a sequel of a pathological state, of an organic disease or of a febrile state. There are cases where the anæmia appears with emaciation of the body, with a cachexia, and although during life we may have been unable to make a clear diagnosis, still in most cases autopsy reveals considerable pathological alterations (deepseated suppurations, malignant neoplasmata), explaining *ex analogia* the anæmia and the cachexia. In other cases (morbus Addisonii, morbus Basedowii) we do know, that even during life certain organic changes took place, but we are still unable to explain therefrom the anæmia and the cachexia. Finally, we meet with *idiopathic or essential anæmia*. Here we have the clinical picture of chlorosis, which leads to death only exceptionally and through complications, and that rare disease which Biermer first described to us as *anæmia progressiva perniciosa*.

He met that disease mostly in poor females of middle age, after digestive troubles and other weakening affections. They had an anæmic-hydræmic look, complained of general lassitude, but showed no atrophy of adipose tissue, after awhile some dropsy.

The usual anæmic nervous symptoms, debility, vertigo, palpitations were present; also weakness of digestion, loss of appetite, diarrhœa at intervals. Anæmic murmurs could be heard at the heart and bloodvessels. Fever of an uncertain type was present. Nearly always retinal hæmorrhages, more rarely petechiæ; in some cases capillary hæmorrhages in the brain and its membranes. Its course is chronic, and with increasing hydræmia it nearly always leads to a fatal issue.

In Biermer's cases autopsy showed with the general anæmia a partial moderate fatty degeneration of the muscles of the heart, sometimes slight fatty degeneration of the intima of the arteries; somewhat more frequently fatty degeneration of the capillaries, especially of the brain. Liver, spleen, kidneys were normal.

Gusserow and Immerman described similar cases of high-graded anæmia in pregnant women. Quincke has so far observed ten such cases: four men, five women, and a girl of eleven years; and being at first not much acquainted with the disease in question, they were wrongly diagnosed as *ulcera ventriculi*, *carcinoma ventriculi*, *nephritis*, *phthisis*, and *typhus*.

An analysis of the clinical and anatomical state shows most exquisitely an enormous *pallor* of the patient, lending to the skin a waxy, slightly transparent look, especially at the lips and fingernails. The face appears slightly œdematous, changing somewhat the features of the patient; the œdema increases in later stages, and remains limited to the feet and legs.

Another prevalent symptom is the *enormous lassitude and debility*. The patients take to their bed, are very apathetic; even eating and drinking is too much of an exertion. Headache is a frequent complaint, even fits of giddiness and fainting set in when they try to sit up; they also complain greatly of palpitations. The action of the heart is frequent, changeable; the pulse in the peripheral arteries small, soft, sometimes jerking. Of eminent intensity are the anæmic murmurs of the heart, constantly accompanying the systolic sound; the bellows murmur is most clearly over the *pulmonalis*, where it even appears rough sometimes. It may be caused by the retraction of the lungs (so often observed in anæmic and weakened persons), which also produces an enlargement of the absolute dulness of the heart. A real dilatation of

the heart, especially of the right ventricle, can be sometimes shown by percussion and anatomically. Sometimes the right ventricle takes part in forming the apex of the heart. The heart is mostly contracted and contains little blood. The valves were never found diseased. The muscles of the heart were in some cases fatty-degenerated, in other cases they only looked pale as all the other organs. In two cases hæmorrhages in the substance of the heart and under the epicardium was observed, once also narrowness of the aorta.

The *respiratory organs* were free from all changes, except occasionally some catarrhal ones.

Digestive disturbances prevail, are frequently present from the very beginning or appear at a later stage in consequence of atonic debility of digestion as a contemporary manifestation of the general cachexia. The appetite is in most cases entirely gone, with sensation of pressure in the stomach after eating; vomiting frequently sets in as often as food is taken. The tongue is usually clean, the epithelial coating even exquisitely tender; perhaps this caused some patients to complain of pains in the tongue and burning in the mouth. Stool was retarded in some cases, in others tedious and obstinate diarrhœas. The anatomical changes of the intestinal tract were slight in relation to the intensity of the symptoms. The gastric and intestinal mucous membrane was very pale, and, but not always, moderately loosened; even where there was a slight icterus no biliary disease could be shown. The liver showed in some cases a slight fatty infiltration of its cells; in several cases it showed a yellowish-brown color.

The *urine* showed no abnormality; quantity, color, and specific weight varied according to the food, and according as there was diarrhœa or vomiting present. Albumen in small quantities was only transitory. Fresh anatomical changes were never observed, especially no dulness or fatty degeneration of the epithelia.

Epistaxis and small petechiæ may be observed, but *hæmorrhages of the retina* are constant and characteristic of the disease. They are most frequent about the entrance of the optic nerve, of a bright-red color, not large, of an irregular longitudinal form standing out in radii. Larger hæmorrhages mostly arise from the confluence of several small ones. A grayish-red point of the size of a

pin's head is sometimes observed in the centre of the hæmorrhage in spots. Visual disturbances were not observed, as the patients were too weak to stand a close examination.

The *temperature of the body* was mostly normal; in some cases there was a moderate remittent fever of an uncertain type, simulating somewhat abdominal typhus, but never reaching above 39°.

The disease gradually develops itself, and the transition from health is so imperceptible that the disease is already far advanced when the patients enter the hospital, sometimes even only a few days before death. The disease lasts from several months to a year; is progressive in its character; the anæmia and cachexia steadily increase, with a constant decrease of alimentation, and thus life becomes gradually extinguished (as in some carcinomata ventriculi, in stenosis œsophagi), when the pale apathetic patients were more dead than alive during their last days, and the pulse had been gone long ago. A final complication is rare, but every unusual change in the balance of that weakly glimmering life may suffice for a final collapse (transport to the hospital, removal of long-continued costiveness). In women pregnant seven or eight months, the foetus is expelled and death follows, though very little blood was lost during labor. In the rare cases of a favorable issue amelioration takes place gradually; the patients at first can take some nourishment, the fever passes off, strength and color return slowly, though a certain degree of anæmia remains. In a girl of four years, who after a treatment of several months was discharged apparently cured, the disease returned after fifteen months and led to a fatal issue. The *prognosis* is unfavorable, although not absolutely fatal, as some authorities decree.

The *diagnosis* of pernicious anæmia is not an easy matter. In far-advanced cases the patients complain of headache, palpitations, digestive troubles, and it looks as if they were suffering from recent shrinking of the kidneys; the albumen in the urine may support such a supposition, but the albuminuria is only transient and the hypertrophy of the left ventricle is also absent. It is more difficult in some cases to differentiate it from the chronic ulcer of the stomach or from carcinoma, when inappetency, vomiting, epigastric pains after eating belong to the primary and prevailing symptoms; here the absence of former gastric symptoms,

the quality of the vomited matter (absence of blood) are of great importance. Febrile cases, accompanied by diarrhœa and general apathy, may simulate a typhus, but the low and somewhat irregular course of the curve of temperature, the absence of the splenic tumor, etc., show that we have to deal with an anæmic fever; it can hardly be mistaken for pulmonary phthisis. Even where we meet a complicating bronchial catarrh, the negative results of auscultation and percussion must lead us in the right direction. We may exclude heart disease in spite of the subjective palpitations and the loud murmurs; inasmuch as the murmurs are always systolic and are always heard loudest over the pulmonary artery, and that a possible increase of the second pulmonary sound may arise from abnormal retraction of the lungs. Neither do we find the manifestations of long-continued valvular disease nor of an acute endocarditis.

Ophthalmoscopic examination is here of the utmost importance, especially in advanced cases, where mistakes in common cases are impossible on account of the frequent hæmorrhages and the absence of genuine retinitis. The grayish-red centre of the hæmorrhages is also characteristic, especially as in high-graded cachexiæ (carcinoma) retinal hemorrhages are only exceptionally observed; on the other side it is important to know that the picture of Brightian retinitis may also appear in pernicious anæmia, and, therefore, cannot be considered pathognomonic for nephritis.

In most cases poverty is the great cause of the disease. Poor and insufficient alimentation, excessive labor, frequent puerperia and lactations, habitual use of alcohol, repeated epistaxis, a typhus fever; tedious gastric and intestinal catarrhs may be considered as some of the causes of the disease. It is, in fact, a *slow inanition* which originates the disease in most cases, but still cases are on record where the disease developed itself under very favorable external circumstances; let us, therefore, examine the blood in different organs. We have already mentioned that we always found the total of the quantity of blood diminished, heart and bloodvessels nearly empty, the blood of bright color, thin, fluid, and not coagulable. A drop of blood taken during life from the tip of the finger usually appeared very pale; the quantity of blood-corpuscles under the microscope small. In some cases the unequal size

of the red blood-corpuscles was apparent, so that with such of the usual size were found a pretty large quantity of smaller size and of a more roundish form, similar to those described by Vanlair and Masius as microcytes. In some cases the smaller-sized blood-corpuscles differed in form; they were egg-shaped, longitudinal, curved, sometimes as drawn out with a pointed process. The larger ones might be considered as faultily developed, hyperplastic blood-corpuscles; the smaller and irregularly formed ones arise by detrition and decay of the red blood-corpuscles. Transition forms between white and red blood-corpuscles, as found during reconvalescence after acute loss of blood, were never observed. We may, therefore, consider the disease based on a very copious detrition of the cellular elements of the blood, either of the red or white ones, whereas no new ones take their place. Whether the spleen, the lymphatic glands, the marrow of the bones take part in these anomalies, whether we have to deal with a functional sluggishness of these organs, with a deficient new formation of cellular elements, perhaps also with an abnormally copious detrition, *e. g.*, in the spleen, is still doubtful; but it is of interest to know that the increased quantity of iron in the liver may hint to an increased destruction of the red elements in some other organ. In some cases the kidney and the pancreas also showed an abnormally high quantity of iron. (May this not have been caused by the quantity of iron taken internally as medicine? S. L.)

Hence we come to the conclusion that *anæmia perniciosa* is not a unit, but, like *anæmia* in general, the product of manifold morbid processes, and, as it were, the highest potency, the extreme final stage of *anæmia*. It might be put in parallel with *uræmia*, *icterus*, *septicæmia*, which also offer typical morbid processes, and which may arise from diverse original diseases. The consequences of the extreme changes and diminution of the blood mass may be the same *in toto*, and still differ in every individual case. As general symptoms we accept the debility, the œdema, the fatty degeneration, the inappetency, the diarrhœa; the albuminuria may be the expression of the secretory activity of the kidneys, changed by the *anæmia*, or of an altered composition of the blood-serum; the fever might originate from a changed activity of the nervous regulators of heat, or form an analogue to that fever observed by

Chossat in starving animals; the hæmorrhages may be caused by altered nutrition of the capillary walls, or from local accumulation of white blood-corpuscles. In relation to the origin of the disease we may accept two chief types: *anhæmatisis*, deficient new formation of blood-elements; and *hæmophthisis*, increased destruction of blood-elements; but both may be also combined in one case, or the absence of any morphotic or chemical element may prevail more or less in any particular case, and thus imprint upon it its particular character.

In relation to treatment, we ought to remove the patients to the hospital, or, where there is a possibility, send them to the mountains. Loss of appetite, vomiting, or diarrhoea must be attended to according to the individual indications, and still failures will continue to occur. Whether transfusion will be of benefit is still in doubt, but we are justified in using even a doubtful means where the changes are decidedly so far unfavorable. For the gastric symptoms Quincke recommends Muriatic acid, Rheim, Gentian. Iron preparations can only be employed when the digestive organs are fully regulated. For the febrile state he employs Chininum and lukewarm baths during reconvalence. (*Volkman's Klin. Vorträge*, 100.)

We are glad to see that Quincke does not consider this pernicious anæmia a new disease, as Biermer and Immermann did (*Ziensen*, xiii, p. 618), who consider as progressive pernicious anæmia only such cases where, after fully considering the entire etiology, we are still unable of explaining rationally the origin of the anæmia, its constant progress, or in putting the blame, though only empirically, on some well-known factors. And *post hoc* we read, p. 653, "The total absence of all success from a roborating treatment (wine, iron, quinine, transfusion), and the incessant, continuous progress of the disease to a final issue, form the clinical criterium for a special form of a disease."

With such a wretched acknowledgment of utter helplessness it behooves us to say whether nothing good can come out of Nazareth, whether that despised homœopathy could not offer one little grain of hope, especially as even our allopathic authorities agree,

that in such hopeless cases *symptomatic indications* are of great value (pp. 516–521); and here we turn our attention immediately to Kafka's great work on *Homœopathic Therapeia*. He says, vol. ii, p. 684: "*We have no universal remedy for anæmia,*" and as Biermer's progressive pernicious anæmia has been most frequently observed in Switzerland (Zurich, Basel), we look again to him, where he says: "What Ferrum is for chlorosis, what Arsen. for hydræmia, that Calcarea is for slow ossification, a remedy of great importance where we find bloatedness (œdema?) of the skin, pot-belliedness, emaciation of the extremities, swelling of the mesenteric glands, chronic, nasal, gastric, and intestinal canals," and speaks then also of Phosphor. and Silicea.

Let us now again recapitulate the symptoms of the disease, and then look out for the simile:

1. Sallow features and paleness of the skin, and of the visible mucous membranes.
2. No marasmus nor emaciation as long as there is no fever, and digestion still in fair order.
3. Violent palpitations, aggravated by the least motion (irritable debility).
4. Atony of digestion; great sensitiveness of the tractus to the ingesta; tendency to secondary dyspepsia.
5. Excessive lassitude and malaise, with deep syncope.
6. Moderate hydrops; a doughy œdema pedum; slight ascites; and a trace of pericardial and pleuritic effusion.
7. Hæmorrhagic state, most frequently towards the end; especially repeated epistaxis, ecchymoses, bleeding from the gums and from the female sexual organs; bloody extravasations in the retina.
8. Fever towards the end, although it may appear earlier, but never at the beginning of the disease. It runs an irregular relapsing course, and the temperature never rises very high.
9. In pregnant women it always produces miscarriage, with speedy death of the mother.

Most cases of pernicious anæmia were so far observed in Switzerland. It is also well known that cretinism prevails in subalpine districts, especially in low-lying valleys, narrow, and exposed to the direct rays of the sun but for a few hours each day, and usu-

ally having but one outlet. In these the air is often stagnant and the heat intense; the water is also in some cases charged with mineral impurities, especially *the salts of lime*; the food is scanty in quantity and inferior in quality, etc. (*Encyclop. Applet.*, xv, 58.)

Looking at the pathogenesis of *Calcareo carbonica* in Allen's *Encyclopedia*, ii, 351, we find among the eye symptoms sudden blindness; black spots before the eyes; profuse bleeding of the nose, almost to faintness; pale face, with blue rings around the eyes; yellowness of the face; bleeding from the gums, even at night; much mucus in the mouth, with a dry sensation; impure, bitter, sour, metallic taste; ravenous hunger or complete loss of appetite; nausea and vomiting, even black vomiting; frequent passage of stool, at first hard, then pasty, then liquid; diarrhoea; offensive, dark-brown urine, with a white sediment; much mucus passes with the urine; the urine becomes turbid after a short time and deposits a whitish, flaky sediment; a fatty pellicle forms on the surface, and the urine smells fatty; severe palpitation, with excessive anguish, and restless oppression of the chest and pain in the back; she makes a loud sound, as if every breath would leave the body, with coldness of the body and cold sweat; excessive palpitation, with irregular pulse; pulse rapid, without feverishness; unusual weariness in the extremities; swelling of the feet, lasting eleven days; great loss of strength; attacks of faintness, with coldness and indistinct vision; severe pulsation of the vessels, especially in the chest after dinner, etc.

Guernsey (*Obstetrics*, 493) finds Calc. carb. indicated in threatened abortion for leucophlegmatic constitution. The history of her case reveals a disposition to hæmorrhage; menses too often, too abundant, and too long; cold and damp feet; vertigo,

Constantine Hering (*N. A. J. of H.*, vol. xx, p. 231) recommends *Calcareo phosphorica* in cretinismus, and in the *Résumé* of provings and cures which he gives, l. c., we read: "Vertigo when getting up or rising from sitting; veil over eyes; eyes misty; amaurosis; epistaxis; point of nose icy cold; pale face, sallow, yellowish, earthen; cold sweat on the face; body cold; foul taste and smell; tongue white, furred on the root, most in the morning; nausea and vomituration; empty, sinking sensation at the epigas-

trium; oozing of a bloody fluid from the navel of infants; watery looseness day and night, with urging after stool; urine with flocculent sediment; menorrhagia, blood either bright-red or too dark; palpitation, with anxiety, followed by a trembling weakness, particularly of the calves; weariness, and the greatest weakness; feels beating of pulse, not frequent but quick; while sitting he feels it in the nape of the neck and left chest."

Teste (*Materia Medica*, 257) puts the lime preparations, as well as Phosphorus and Silicea, in his fifth group, whose characteristics are diminution of vital heat and action, a disturbed condition of the vascular sphere, a sort of ill-conditioned plethora (?), passive hæmorrhages, and petechiæ. He considers lime especially suitable to blonde and fat children having a certain appearance of vigor; to fat youths; to women with white skins, mild or listless dispositions, whose menstruation is generally too early and profuse; or to aged persons of both sexes, with dry constitutions, yellowish complexion, having been formerly troubled with tetter, and being subject to attacks of peevishness, neuralgia, or gout.

Hughes justly considers *Phosphorus* an analogue of *Calcarea*. If the latter may certainly be considered our sheet-anchor in keeping the disease at bay, in changing malassimilation, and thus aiding in forming normal constituents of the blood, the former will be indicated even where the disease has already taken a deep hold on the patient, for we find in the pathogenesis of this important remedy (Hahnemann, *Chronic Diseases*, iv, 45) irritability and anxiety; blindness by day, everything having the appearance of a gray cover; black spots hovering before the face; bleeding from the nose; dirty color of the face; white tongue; slimy, cheesy taste; panting for something refreshing; nausea after a meal; constipation, followed by half-liquid stools; loose stool, mixed with lumps of white mucus; menses too early and scanty; discharge of blood from the uterus between the menstrual periods; rush of blood to the heart, and violent palpitations of the heart, with anxiety; in the night he thinks he hears the blood rush through his body; profuse bleeding of small wounds; hæmorrhage from various parts of the body; deadness and icy coldness of the hands and feet; hysteric weakness; she is unable to move a limb, with constant gnawing, gulping up, and torture and pressure in

the chest; hectic fever and emaciation; great weakness in the limbs; general, sudden, excessive weakness; faint, oppressed feeling the whole day.

Kafka (l. c., ii, 696) remarks that where, in patients with *precocious puberty*, chlorosis sets in combined with excessive muscular debility, but without loss of the adipose tissue, Phosphor.³, two to three doses daily, acts better than Ferrum, inasmuch as the former quickly relieves the congestion towards the pelvic and thoracic organs, and thus improves the vitality of the blood, whereas iron increases the congestion, and thus necessarily aggravates the case. In fact his whole chapter on anæmia is masterly written, and we can only advise our readers to study it carefully (*mach's nach, aber, mach's recht nach*), as they find a translation of the chapter in *N. A. J. of H.*, vol. xviii, p. 12.

Hughes (*Pharmacodynamics*, 3d ed., p. 619) describes well the fatty degeneration produced by this drug; the skin and conjunctiva assume a more or less yellow tint, and the stools are light, but with this there is a general typhoid prostration. Petechiæ and hæmorrhages occur in various parts of the body. The urine is scanty, high-colored, and loaded with albumen. Cerebral symptoms supervene and the patient dies in a few days in a state of coma. At the post-mortem investigation nothing is discovered in the brain save a little fulness; but the blood is found in a state of complete fluidity, non-coagulable, and with very few corpuscles, while ecchymoses and sanguineous effusions appear everywhere. Fatty degeneration is found to have involved different parts of the body, notably the heart and the muscles generally. Page 623. Hughes is doubtful whether the dissolution of the blood induced by Phosphorus is the result of a direct hæmatic influence, although he acknowledges its wonderful effect in fungus hæmatodes, and cites a case of essential anæmia cured by Dr. Broadbent.

Although the internal organs showed no severe lesions in the cases of progressive pernicious anæmia, we would have more confidence from the similarity of symptoms in Phosphorus than in any preparation of iron, given promiscuously by the old school. Immerman prescribes Tokay, and we know that these Hungarian wines derive some of their tonic effects from the minute quantity of Phosphorus which they contain.

We cannot see the rationale of giving iron in this pernicious anæmia. Its symptoms point to a far deeper affection than a simple uncomplicated chlorosis, for which Ferrum is really specific. We beg to differ from Dr. Hughes, when he says (l. c., 364) that iron is the remedy for anæmia, from whatever cause this condition may arise; and when my worthy friend says that iron, like lime, is a normal constituent of the body and is continually supplied with the food, he forgets that he also remarks (p. 606) that Phosphorus is one of those substances which enter into the normal composition of the body. It exists mainly in the nervous centres, in the form of a peculiar compound with fatty matter, which has been named "protagon," just as iron is united with hæmatin in the blood. Kafka also showed us that iron is indicated in simple chlorosis from *retarded puberty*, whereas Phosphorus responds to that of *precocious puberty*, or as Trousseau remarks, we must differentiate between true and false chlorosis; and the same may be said of a qualitative and quantitative anæmia. We can easily trace from that simple symptom, "small wounds bleed much," the fluidity of the blood, its non-coagulability, causing a depraved condition of the general health; in other words, a dyscrasia, rendering the patient pallid and exhausted, with a sallow and cadaverous complexion, with an irritative fever, which may remit and finally develop into a real hectic.

No such perniciously anæmic condition exists in true chlorosis with its retarded puberty; and why is here puberty retarded? May it not be caused by something which retards metamorphoses, and which keeps the maiden too long in, as it were, a juvenile state? The blood may be comparatively too serous, and Ferrum corresponds to this serosity of the blood. In Phosphorus we see decomposition of the blood-mass prevail, in Ferrum more a disproportion of the constituents of the blood. In the former we have a dyscrasia leading to fatty degeneration, which certainly is absent in the latter. In the pathogenetic action of Ferrum we constantly meet a passive congestion; hence also its benefit in *phthisis florida*, and the hæmorrhagic tendency, curable by Ferrum, differs widely from that found in pernicious anæmia. We must come to the conclusion that even our allopathic colleagues err in giving iron in this disease.

A genuine homœopathic remedy may be found in *Argentum nitricum*, or in *Picric acid*. Let us examine the action of these two neglected remedies. *Argentum nitricum*, according to Krahmer (Nothnagel, *Mat. Med.*, p. 305), when added to blood diminishes the absorption of oxygen, and restricts in substances capable of putrefaction the process of decomposition. (We see here a similarity to the action of Phosphorus.) Bogolowsky (Hughes, l. c., 119) experimented with it largely in rabbits, and found that the salt has a direct and primary influence on the red corpuscles of the blood, causing their coloring matter to escape into the plasma, and so leading at first to ecchymosis and effusion, and later to interference with oxidation and ultimate chlorosis (? we would rather say spanæmia); as a result of the deficient nutrition there occurs degeneration, *rather of a granular than a fatty kind*,* of the renal and hepatic cells, and of the muscles, including the heart. There is also found a universal blood-stasis.

Defective oxidation brings immediately to our mind Grauvogl's carbo-nitrogenous morbid constitution, for which he considers Nitrate of silver one of the chief remedies. Let any candid reader peruse §§ 305, 306, 307, 2d vol. of *Grauvogl's Therapy*, and he will find the entire etiology of our pernicious anæmia. That eminent author truly remarks that the microscope reveals to us here many melanotic blood-cells. The blood is richer thereof, on account of the suppressed progressive metamorphosis, possible only on account of an insufficient import of oxygen to the organic fluids and tissues. Sulphur, the representative of the antipsorica, increases the activity of all secretory organs, and removes carbon and nitrogen from the organism, and Nitrate of silver (§ 315) acts similarly to Sulphur.

Koehler (*Physiologische Therapeutie*, p. 949) remarks on Arg. nit., that it contracts the bloodvessels of the mucous membranes,

* According to Rindfleisch (*Histology*, § 27) granular degeneration is only an early state of fatty degeneration. During the process of the fatty metamorphosis the cell has considerably increased and assumed a completely spherical form. They are now called "granular corpuscles," and by this term we understand a globular aggregation of fat-globules which are held together by an albuminous intermediate substance. The granular corpuscles disintegrate, and we may conveniently term the last act of fatty degeneration as a lactification.

reduces their secretion and sensibility, retards peristaltic, increases at first and then diminishes the reflex-irritability of the spinal cord, and keeps back the organic processes in the blood. Constitutional as well as infectious diseases may therefore be cured by the use of this drug.

But for the similarity of symptoms, let us compare the disease with the remedy, according to Allen's *Encyclopedia*, where we find apathy, with great debility and tremulous weakness; heaviness over the eyes, which open with difficulty, increased by stooping; gray spots and bodies in the shape of serpents move before vision; several drops of blood from the right nostril, without previous blowing of the nose; sickly appearance of the face; sunken, pale, bluish countenance; appearance of old age; loose, readily-bleeding gums; fetor from the mouth in the morning; parched condition of the lips, mouth, tongue, and fauces, night and morning; faintish nausea with violent palpitation of the heart; constant nausea and extremely troublesome efforts to vomit; wild gnawing at the stomach, a sort of hunger with nausea; violent diarrhœa, like spinach in flakes; bloody diarrhœa; sighing oppression of the chest; heart's action irregular, sometimes intermitting, with an unpleasant sensation in the chest; palpitation caused by sudden, violent exertion or mental excitement; lassitude and heaviness of all the limbs; suppression of the menses, miscarriage, and metrorrhagia.

Picric acid may well be compared with the foregoing remedies, inasmuch as it is also a carbo-nitrogenous remedy. In the experiments on animals, made by L. B. Couch, M.D. (*N. Y. Journal of Hom.*, June, 1874), we find the black, frothy fluid in the stomach and upper part of the intestines coloring even the muscular coat, and the brain as well as the upper part of the cord disorganized, soft, and pulpy. In all the provers we find great debility, the lower extremities feeling dull and heavy; profuse, cold, clammy sweats, with chilliness; nausea, bitter eructations; terrible erections.

That close observer, S. A. Jones, M.D. (*N. A. J. of H.*, xxiii, 443), remarks that Picric acid causes a perversion of nutrition, wherein the balance between waste and repair is disturbed, and which tends towards incomplete oxidation of the blood; and we

agree with this writer, when he says that in all carbo-nitrogenoid conditions, save those resulting from the animal poisons, the blood change is secondary, the nervous system being primarily affected, and through it the blood. Koehler (l. c., 917) says the same of Nitrate of silver, as producing an irritation of the inhibitory fibres of the vaso-motory nerves, and thus causing contraction of the capillaries, diminished secretion, and a reduced sensibility of the mucous membranes.

All three drugs, Phosphor., Nitrate of silver, and Picric acid, produce primarily deranged innervation, and secondarily deranged nutrition; all three may be indicated, *cæteris paribus*, in progressive anæmia; and it is the duty of the conscientious physician to individualize strictly in order to save his patient, where the old school has so signally failed to give relief. The material for relief is on hand, but alas! how few of us know how to use it understandingly.

Résumé.

We then consider as cases of pernicious anæmia such ones where (1), the disease tends in most cases progressively to a fatal issue, and (2), where, neither in the outward relations of the patient nor in their former nor in their present somatic constitution any reason can be found for the malignity of its course. Anamnesis totally fails to explain this anæmia, but in all the cases so far recorded a *depressed vitality* preceded the breaking out of the disease. In fact Biermer (l. c., 625) remarks that we can only make our diagnosis from a negative standpoint: the examination of the urine fails to show any primary renal disease; liver, spleen, and all the palpable lymphatic glands give for such a deleterious blood disease and for the steadily-increasing prostration no hints, in spite of a most exact physical exploration; the blood examined microscopically during life of the patient may show the numerical relations between red and white corpuscles unaltered, and not a trace of leucæmia, melanæmia, etc., but auscultation reveals *phenomena of the heart and vascular apparatus* with such regularity and exquisiteness that they may be considered pathognomonic of the disease, and as there is no valvular disease their functional origin is clear. That the hæmorrhages are caused by vaso-motor paresis is equally apparent, as in all the autopsies integrity of the

valves, but fatty degeneration of the cardiac muscles, especially of the papillary ones, was shown, and not only the larger blood-vessels but even capillary ones take part in this fatty degeneration. *The blood is pale, bright-red, thin, fluid, not coagulable,* and heart and veins are found nearly emptied of this blood. This excessive anæmia, with its hæmorrhagic tendency, Biermer (l. c., 635) explains from the most exquisite oligocythæmia (diminution of the number of red blood-corpuscles). The normal, functional, and nutritive restitution of the capillary walls necessarily needs contact with blood rich in oxygen; and where this contact is wanting, finer or coarser changes (fatty degeneration) arise in the capillary walls, favoring an *emission of blood per diapadesin and also per rhexin*. This change in the blood, so that it *becomes poor in oxygen* in its totality, may be considered the chief cause of the pernicious character of the disease, and also of the fever, so often observed towards the end of the disease, from *necrobiosis of numerous living tissue-elements*.

In our therapeutics we tried to find some remedy which might cover the totality of the case, and, we fear, not to have succeeded as well as we could wish. As long as perverted nutrition is the chief symptom, as long as the disease is only undermining the constitution of the patient, we certainly can hope a great deal from the carbo-nitrogenous Sulphur, and from the different salts of lime; when the oligocythæmia with hypinosis and hypalbuminosis already reaches a high degree, we may still hope something from the remedies mentioned, though the question arises, how we can escape to notice the difference in the quality of the blood, which in the disease in question is pale, *bright red*, thin, fluid, non-coagulable, and in our remedies also decomposed, but dark-red? Our indication for their use lies in their quality *to restore the function of absorbing ozone*, and thus give life again to the fast-decaying blood-globules by removing the vaso-motory paralysis dependent on some cause which lowered vitality. We find in all these remedies an amelioration in the fresh air, in all the frequent respiration and an increased frequency of the pulse, so characteristic of the carbo-nitrogenous constitution, and by restoring vitality we may not only hope to change the color of the blood, but also restore nutrition to its equilibrium, so necessary to health.

ARTICLE VII.—Skin Diseases : Some Words in Relation to their Mode of Treatment.

BY PHIL. E. ARCULARIUS, M.D.

THE skin as an anatomical structure is of complex organization with a surface of some twelve square feet, and, like all other tissues, endowed with its congeries of cells, bloodvessels, and nerves. Nor is it wanting in certain appendages, as the hairs and the nails, while it possesses certain peculiar apparatuses of a glandular nature, as the sebaceous glands, which everywhere accompany the hairs, opening into the hair-follicles, and the sweat-glands, which are convoluted and spiral tubules, everywhere present, and aggregating in number some two and a half millions, with some two and a half miles of tubing.

In its physiological relations the skin performs most important functions. By means of the sebaceous glands the hairs receive their proper unguent, while the sweat-glands, by means of their great number and their general distribution over the vast extent of the cutaneous tissue, do much to regulate the temperature of the body, by facilitating evaporation from its surface. At the same time, by elimination of the perspiration, they accomplish, doubtless, quite as essential an office in aiding respiration in the exhalation of carbonic acid. This is seen more fully in the case of the newly born infant and of the amphibious reptiles, where transpiration of gases through the skin is an active process sometimes serving as a substitute for ordinary respiration.

In our study of the pathology and therapeutics of skin diseases we shall find that the variations in the structure of the skin in different regions does much towards modifying the character of an exanthem. An eczema upon the general surface is by no means the same, either in appearance or nature, with that upon the scalp, for in the latter instance the sebaceous matter, which is constantly secreted in connection with the hairs, changes entirely the character of the disease. Again, among the vegetable parasitic diseases tinea circinata and tinea tonsurans, though differing in appearance, are really one and the same disease, and due to the spores of the same fungus, the trichophyton tonsurans; and yet one is known as ordinary ringworm of the body, and the other as

ordinary ringworm of the scalp. Furthermore, in psoriasis the scales, though coarse and large, are larger and thicker, amounting to laminae of horny plates, upon the palmar and plantar surfaces, where the epidermis is so well developed.

Many and multifarious are the classifications adopted by various authors in their treatises upon dermatology. Concerning treatment it is not so necessary to adhere strictly to any order, but rather to arrive at some system of theory and practice. Hence it would be well to recognize four general classes of disease, as follows:

- I. General exanthemata with constitutional disturbance.
- II. General exanthemata without constitutional disturbance.
- III. Special or local lesions.
- IV. Parasitic diseases, animal and vegetable.

And now, to consider the treatment of skin diseases according to the foregoing arrangement, we find, in the first place, that almost all of the exanthemata, if not the exhibition of some diathesis, are at least secondary to some general or constitutional disturbance; and so a large class represent by the lesion upon the skin simply the outward manifestation of the systemic trouble within, the latter in reality being the disease proper, and shaping the whole course of procedure. How plainly this is suggested in variola, scarlatina, and morbilli; and it is well to bear in mind that by skin diseases we do not always mean some fearfully chronic affection without constitutional symptoms, which baffles all our skill and proves the bane of our existence, but, on the contrary, some acute affection which profoundly deranges the whole economy, taxing all our energies in order to cope with its rapid strides, while we endeavor to allay the local agony and itching.

That undefinable disease, rheumatism, which may in its acute form assail, not only the articulations, but as well the internal organs, is often accompanied with an erythematous eruption or an urticaria of most troublesome nature. Again, erysipelas calls rather for constitutional than local measures, and often is the system completely invaded with the poison of this disease, while the vital powers are taxed to their utmost, and sometimes with fatal issue. In fact, almost all the acute exanthemata are ushered in with fever, anorexia, and general malaise, showing thus the gen-

eral and allied sympathy between all the members of the organization. It is needless, in view of the facts just stated, to infer the importance of constitutional treatment in these diseases; we grasp it by intuition; and, though local applications may sometimes prove useful, it will be rather as a means of comfort and not of cure, for they will prove to be entirely subsidiary in determining the main issue.

And this leads to the consideration of the second class of diseases—those general exanthemata without constitutional disturbance, which are mainly diseases of a subacute or chronic nature. A type affection is psoriasis, often unaccompanied with any itching whatsoever, and coupled with a good sound, nay, robust state of health, though the exanthem may be found completely covering the body, the scalp as well. It has been observed that Hebra, in his clinic, has called attention to this fact—the remarkably good state of health in a patient suffering from general psoriasis. And Tilbury Fox also says, in his work upon diseases of the skin: “The general health is often apparently good.” So too acne may appear upon the face and upon other portions of the body as well, generally distributed over the surface, and yet associated with that condition of the system which implies the highest grade of vitality. Hence the name acne, or acme as it should be, the corruption of the word having arisen with *Ætius*, according to Dr. Greenhill. There are other diseases which might be cited, but these are given as characteristic of the fact that the surface of the skin may be generally affected, and yet without the least derangement of the constitutional condition. Now, as regards treatment in this class of diseases, it would be well to bear in mind that, without reference to the absence of symptoms or the employment of local measures, simple internal treatment should be followed up in as good faith for final results as would be looked for in our management of an ordinary chronic bronchitis; for upon one consideration we shall find that the skin as a tissue is quite as highly organized as is the bronchial mucous membrane. Attention is here called to some cases of general and special psoriasis reported in the *North American Journal of Homœopathy* for November, 1870, and February, 1871, and treated essentially without local aids.

And now, with reference to the third class of cases—special or

local lesions—possibly the same theory and practice will not hold, though we all know that a peculiar metastasis exists often between some circumscribed humor and some internal organ, and have seen it alternate in appearance and disappearance with the exhibition of an intestinal flux. Various forms of local eczema upon the heads of infants, popularly termed *crusta lactea*, act thus, and serve as apt illustrations (Trousseau*). In all such cases as these internal treatment should be our mainstay, and of necessity, for it would probably be well to avoid all local measures of a revulsive nature. By way of illustration, see cases of eczema capitis reported in *North American Journal of Homœopathy* for November, 1871, and May, 1872.

But it is more especially to another order of affections, more decidedly local in their nature, that the term "special or local lesion" applies, such as fissuring of the skin about the nails or elsewhere, and also of the mucous membrane about the mouth or anus; such as single or isolated spots of eczema, lichen or psoriasis, solitary points upon some portion of the integument, large or small, which are undetermined in character, and call rather for the general or vague term of "dartre or tetter," and existing with what the French term the *dartrous diathesis*. In this last order of cases it may often be found necessary to institute some local form of treatment, acting upon the homœopathic principle or otherwise, while at same time we should not ignore the employment of suitable internal remedies. It might be well from time to time to adopt as a local application the same remedy which we deem as most suitable in our internal treatment of the case, used at the same time, and in connection with one another. However, see cases reported in *North American Journal of Homœopathy* for August, 1872, and February, 1873, and also in *New York Journal of Homœopathy* for December, 1874, cases in which local lesions were reached with scarcely any local procedures, but where internal medication was the order of treatment.

* Trousseau, in his *Clinical Medicine*, also notes the fact that sometimes an eczematous eruption exists about the external genitalia in cases of diabetes mellitus, and remarks that thus the true nature of the disease may be determined, the obstinacy and irritability of the eruption serving as an accidental means of diagnosis.

We come now to the consideration of our fourth and last division of our subject; the parasitic diseases, animal and vegetable. It is needless to infer the necessity of cleanliness in all affections of the skin as it remains as a self-evident fact, particularly where the patient is suffering from the *pediculus* or the *acarus scabei*. Here we know that hot baths with an inunction of lard or simple cerate, but better still of some medicated ointment, is essential not only to allay the pruriginous condition induced from irritation and scratching, but also to check the life and growth of the insects, and stay the further propagation of the disease; and this holds good in that extensive class of cases now known as the *tineæ* or vegetable parasitic diseases; thanks to the microscope for its aid in their diagnosis and treatment, for by its aid the nomenclature of skin diseases has been greatly modified. Only too patent is the fact that the vegetable spores, after having found a favoring nidus upon some portion of the general surface fitted to receive and nourish them, should be alone uprooted and blighted in their growth by the direct use of some local application in the form of lotion or unguent. Such, in the main, is the form of treatment for all the varieties of *tineæ*, characterized as they are by their dry scaly and scurfy appearance, due to the prolific reproduction of the spores. Certainly, without such radical measures as have just been cited, the use of internal remedies will be quite powerless to effect any relief, in view of the nature of these diseases; and hence we are to rely almost wholly upon the employment of some mild parasiticide well rubbed into the diseased patches, and faithfully repeated from time to time. Tilbury Fox, in his admirable treatise upon skin diseases, mentions this mode of treatment as preferable to more active agents, and also states the fact that "fungi will not flourish on a healthy surface;" and, so in speaking of treatment again, remarks upon the necessity of a proper dietary, saying that the underfed and ill-nourished are more susceptible to these diseases. Therefore, in noting this fact, we may doubtless find occasion to pursue internal treatment as a constitutional safeguard, in order to improve the general condition, and so prevent the commencement and spread of these troubles in systems already favorably predisposed to them. Thus, by ameliorating the general health, we may in turn restore tone to the

general surface, and so stay the further propagation of the fungus, so much at least for internal treatment.

It alone remains to review our ground and make some deductions from matters which have been already considered. It may be remarked that local applications the more readily disperse eruptions, and more effectually establish a cure; but it should be remembered that, like nervous diseases, so skin diseases are prone to recurrence, and that when subjected to active local measures, and under sudden arrest they may again appear at any time and reassert themselves; that in fact they are not cured but simply for a season suspended in their visible manifestations. On the other hand, internal medication, though slow, is none the less sure in its final results, and even if the process towards recovery be gradual, it is none the less normal, and according to expectation, when an exanthem has existed already for weeks, months, or years. Furthermore, as has been said, the skin is of complex organization, and also one of the four emunctories of the system, and hence just as we would treat a chronic disease of the lungs, intestines, or kidneys, so should we manage a chronic affection of the skin, though in the latter instance the temptation might be offered to resort to the indiscriminate use of local applications. For just as in one instance the proper use of the appropriate homœopathic remedy will result in a favorable issue; so in all, the skin as well, we may look for the same results under the same conditions.

In conclusion, it is necessary to keep one fact under full observation, and that is the *time* which is necessarily required in the treatment of diseases which are so very chronic, and that in all cases progress towards recovery must be very, very slow. Sometimes possibly, in extreme cases, we need never expect a complete cure, but simply hope, as in any other incurable affection, to simply ameliorate the general health and the local conditions. Therefore, we should not forget in all the severe trials of our medical skill, for it will be sorely tested in the treatment of skin diseases, that the controlling element in all our measures will be not simply patience, but as well, and the word gathers force in its repetition, the "*energy of patience.*"

ARTICLE VIII.—Therapeutics of Intermittent Fever.

BY A. LE ROY FISHER, M.D., ELKHART, IND.

(Read before the Indiana Institute of Homœopathy.)

THERE is, probably, no prevalent disease that has received so little homœopathic treatment at the hands of physicians sailing under the homœopathic flag as intermittent fever; but an experience with more than a thousand cases has convinced me that pure homœopathic therapeutics are the only reliable means by which we can successfully treat this disease in all its variations.

Our text-books, as a class, have, until recently, given but vague, general indications for treatment that lacked the clear-cut stamp of experience. Again, there is no other disease that presents so many concomitants or complications that may influence the choice of a remedy. Furthermore, there are no symptoms which, taken by themselves, can be truly said to be "keynotes," or so characteristic as to exclude other remedies. This remark, however, will not apply to *groups* of symptoms, still, in grouping symptoms on paper so as to form a set that shall always be present to render the choice certain, there is a difficulty not easily overcome. A thorough knowledge of our remedies, as we know our oldest and most intimate friends; so that they may be recognized in any disguise, under all circumstances, is the only means by which we can be eminently successful.

In what follows I shall not attempt to treat of all remedies that have been or may be successfully employed in the treatment of individual cases or even epidemics, but shall confine myself to well-proven remedies whose symptoms I have verified.

The symptoms connected immediately with the paroxysm I have considered of chief importance in most cases, for, in my experience, very many cases have the apyrexia clear, while many of the balance will complain of malaise only.

When, however, the symptoms of the apyrexia are marked, they are of great importance.

The question of dose is somewhat foreign to the subject of this paper, but will say that I have used potencies from the third decimal to "Fincke's bottle-washings," and have been successful with all, but probably nine-tenths of my cases were treated with

Tafel's 200ths, with which potency I am well pleased. With these remarks I will proceed to the indications for the remedies, beginning with

ANTIMONIUM CRUDUM.

Clinical experience with this remedy in intermittents is wanting to make a clear division of symptoms. It resembles Pulsat. in some symptoms; as, absence of thirst, thickly coated tongue with nausea, and vomiting, and bitter taste. It differs from Puls. in this; the sweat sets in immediately after the chill, but soon disappears, dry heat remaining.

Chill with sweat at the same time. Feet very cold with sweat on the rest of the body.

Last spring (1876) *Ant. crud.* did me good service in two cases of double quotidian, where there was much nausea and vomiting, with tongue thickly coated white; the algid stage being followed by sweat with great heat for an hour, when the sweating ceased, dry heat remaining for two hours. Pulsatilla, previously given, had failed to make any visible impression on the cases, while convalescence was established in twelve hours after the Antimonium was commenced.

APIS MEL.

Chill, in afternoon (3 to 4), with thirst; *lachrymation*, heat of the hands and face, and oppressed breathing.

Chill, worse from external warmth, and from least motion.

Heat is most severe on the hands, chest, and epigastric region. Oppression of the chest, desire to uncover, sleep.

Sweat alternates with dryness of the skin; sleep.

During the apyrexia there is soreness of the spleen, debility. In chronic cases, swollen feet and scanty urine. Soreness of the joints and flesh, enlarged abdomen.

Apis is frequently indicated both in acute and chronic cases.

ARNICA MONT.

Before chill, thirst; *drawing pain as if in the periosteum*; yawning and stretching.

Chill, with thirst, *pain in the flesh as if bruised, and frequent*

change of position. Cold hands and feet, *with heat of the head.* Chill may be most severe in pit of the stomach; headache.

Heat, with less thirst than during the chill.

Great soreness of the flesh and frequent change of position, because the bed feels so hard.

Chilly from uncovering. Indifferent mood; headache.

Sweat, sour, fetid, like mouldy earth. Headache and soreness of flesh continue.

In the apyrexia, there is aching and soreness of the flesh, and especially in chronic cases, debility and aversion to exercise.

Arnica corresponds in its pathogenesis to Quinia cachexia as well, perhaps, as any remedy known, and since Hahnemann, in his *Mat. Med. Pura*, recommended it for such conditions to the present time, experience has proven it to be very often useful in cases maltreated with Quinia.

It is often indicated in acute cases. It resembles *Eupat. perfol.* in many symptoms, but a careful comparison will enable one to readily decide between them.

In acute cases, relapses occur oftener than with any other remedy used. The relapse often comes on the fourth or fifth day after last paroxysm, meanwhile the patient has not felt well.

Apis and *Natr. mur.* have often been found curative after *Arnica*.

ARSENICUM ALBUM.

Before chill, *yawning and stretching*; weakness; cutting pain in bowels, watery diarrhœa; thirst.

Chill, *not clearly developed*, seems mixed with heat, *ameliorated by external warmth.*

Generally not much thirst, but when there is, *drinking increases the chilliness, and causes nausea or vomiting.*

Oppression of the chest; restlessness; blue nails; pain in the stomach. Chill at midnight to 2 A.M.

Heat, *intense, long-lasting, with insatiable thirst for cold water in large quantities*, with vomiting after drinking. (Sometimes thirst for small quantities often repeated.) *Oppressed breathing; vomiting; pain in stomach and bowels; headache; restlessness; pressing pain in region of spleen.*

Sweat, with thirst, may come several hours after the heat, or more often, no sweat at all. Very debilitating, cold, clammy, sour sweat at night. Headache continues. After the paroxysm, great weakness.

Apyrexia. The symptoms of the apyrexia are of great importance, especially in cases previously abused with Quinia. There is great general debility; lassitude. Face pale, sunken (or bloated), sallow. Spleen swollen with pain on pressure. Abdomen bloated; dull aching in region of liver. Fetid diarrhœic stools; urine scanty, turbid, and the patient is constantly chilly; wants to be in a warm room.

Arsenicum is a royal old remedy in intermittents, but one that is terribly abused by pseudo-homœopaths. There is little need of confounding this remedy with any other, for its symptoms are clear and decisive. To the so-called *dumb ague*, so often met with after the abuse of Quinia, it corresponds oftener than any other drug.

BELLADONNA.

Chill begins or predominates in the pit of the stomach. Chill with headache, dilated pupils, dread of light, nausea, restlessness.

Heat intense, with great thirst; vertigo; violent headache, throbbing of the carotids, and very red face. Delirium; drowsy, with restless sleep. Sopor.

Sweat profuse, beginning at the feet and rising, with gradual relief of painful symptoms. Sweat exclusively on the covered parts. Belladonna may be profitably administered during the paroxysm, when its well-known congestive symptoms are present and demand relief.

Its paroxysm most resembles that of Natr. mur., but it is comparatively seldom called for.

BRYONIA ALB.

Before chill, vertigo and headache.

Chill with thirst, heat of the face with flushed cheeks. *Stitching pain in the spleen*; dry mouth, violent pain in the limbs; vomiting. Right side chill.

Heat with thirst; dry cough with pleuritic stitches; headache

and vertigo. Pain in limbs aggravated by motion; nausea and vomiting.

Sweat profuse, sour or oily; easily excited by exercise. Bryonia is not an often indicated remedy for intermittents, but when its characteristic symptoms during chill and heat, as indicated above, are present, it will do its work.

CACTUS GRAND.

Chill appearing at the same hour, 11 A.M. or 11 P.M., every day. Not relieved by covering.

Heat, burning, with thirst; with great dyspnoea or smothering sensation; headache, stupefaction; insensibility, deep sleep.

Sweat profuse, with inextinguishable thirst and dyspnoea.

Apyrexia, clear.

Cactus corresponds to a type of agues not often met with in this section, but when the paroxysm keeps the hour, as indicated above, together with the dyspnoea or smothering sensation, there is no drug that can replace it.

CHINA OFF.

Before chill, thirst, hunger, headache, debility, and palpitation of the heart.

Chill generally without thirst. If there be thirst the patient abstains from drinking, because the chill is increased by drinking.

Chill with pain in the liver. Very cold hands and feet, with congestion to the head.

Heat generally without thirst; with distended veins; congestive headache; stitching pain through the temples; hunger; pain in liver; oppression of the chest.

Sweat with thirst; profuse, debilitating.

Apyrexia, sweats easily, weakening night sweats. Debility, sallow complexion; general anæmic symptoms. Urine scanty, turbid with yellowish or brick-dust sediment; pain or soreness in region of spleen and liver. No appetite. *Restless sleep at night before paroxysm.*

Hahnemann says, in his introduction to Cinchona, *Mat. Med. Pura*, that "Bark will scarcely ever be found useful except when

the nightly rest of the patient is disturbed similarly to the disturbance which characterizes Cinchona." Owing to the prevalent abuse of Quinia, *China* has been given, undeservedly I think, a back seat in the treatment of intermittents.

CAPSICUM ANNUM.

Chill, with thirst, beginning in the back between the shoulders. Tearing pain in the back and limbs; congestion of the stomach; painful swelling of the spleen. *Chilliness worse after drinking.* Contracted pupils.

Heat without thirst, with burning, mucous diarrhœa with much pressing and bearing down; cutting pain in the bowels. Headache, pain in back and limbs. *Sleep.*

Sweat with the heat, or *after the chill without previous heat.* Sleep. The symptoms of *Capsic.* are such that it will not often be confounded with any other remedy. The location of the commencement of chill is its greatest characteristic.

CARBO VEG.

Before chill, headache, backache, pain in the limbs.

Chill with thirst, headache, great lassitude; excessive coldness of the body and cold breath.

Heat without thirst; with headache, flushed face, vertigo; nausea; pain in the stomach, spleen, abdomen, and lower extremities. Oppressed breathing.

Sweat sour, profuse. Sweat with the heat. Headache continues.

Apyrexia. "The region of the stomach is puffed up between the paroxysms." Jahr.

CIMEX LECTULARIUS.

Before the chill, thirst and heaviness in the legs. Chill commences with clenching of the hands and violent raging. Chill attended with pains in all the joints. Sensation as if the tendons were too short; the knee-joints are usually contracted so that the legs cannot be stretched; the chest feels oppressed, obliging one to take a long breath frequently; irresistible sleepiness. Chill

terminates with a tired feeling in the legs, obliging one to change position constantly; with thirst, drinking, however, causes violent headache; continuous dry cough, oppression of breathing, heaviness in the middle of the chest; anxiety. Abstaining from drinking ameliorates all this.

Heat, with gagging; the œsophagus feels constricted, and the water goes down only at intervals; no thirst.

Sweat mostly on the head and chest, accompanied by hunger.

A case calling for *Cimex* has never yet occurred to the writer, but it is recommended by too good authority to be cast aside, for it corresponds to a very malignant type of ague.

The above is from Korndærfer's *Bœnninghausen*.

CINA.

Before chill, hunger, vomiting of food, pain in the limbs.

Chill, with thirst; pale, cold face and warm hands; nausea, or vomiting of bile, or ingesta.

Heat, with puffed face; pale, especially around the mouth and nose; *vomiting* of ingesta; pain in the abdomen; hunger; pupils dilated; *pricking and boring with the finger in the nose*; *nervous, restless sleep, with starting and screaming, as if frightened*.

Sweat generally slight; cold sweat mostly on the forehead, about the nose, and on the hands. *After fever, hunger*.

Apyrexia. General "worm symptoms" predominate; patient *awakens from sleep trembling and frightened, with screams, and will not be pacified*; *restless while asleep*; *urine turbid, becoming semi-solid on standing*; nocturnal enuresis. *Cina* will be found indicated chiefly in children. Sometimes it will cure (other symptoms agreeing) where there is loss of appetite, or desire for dainties only, there having been a craving appetite previous to the appearance of the fever.

DIADEMA ARANEA.

Chill predominates, long-lasting, *occurring at precisely the same hour, every day or every other day*.

Heat slight, no sweat following; or, chill without subsequent heat, followed by *sweat with thirst*.

Apyrexia. General symptoms are worse on cold, rainy days; spleen enlarged; constant chilly feeling; menses too early and too profuse; much exhaustion.

EUPATORIUM PERFOLIATUM.

Before chill, thirst; nausea or vomiting (particularly after drinking); pain in the abdomen, back, and bones of the extremities; stretching.

Chill, with thirst; much shivering, increased by motion; intense aching in head, back, and bones; yawning; stretching; pain in spleen; nausea (worse from motion); vomiting of fluids and bile (worse after drinking); vomiting of bile as the chill is passing off.*

Heat, with thirst, but not so intense as in the chill, with increase of headache and bone pains; chills up the back from uncovering; seldom any nausea or vomiting during febrile stage.

Sweat generally absent, or scanty, but sometimes profuse. Whether there is sweat or not, the headache continues for several hours after fever is gone.

Apyrexia. Jaundiced hue; loose cough; night-sweat, with chilliness, from motion or uncovering.

E. perfol. is one of our sheet-anchors in the treatment of intermittents. Its symptoms are decisive, and such as I have very often met with. It resembles Arnica somewhat.

EUPATORIUM PURPUREUM.

Chill, with thirst, begins in the small of the back, and extends from there over the body, with frontal headache, lips and nails blue, violent bone pains.

Heat, with thirst, bone pains, chilliness from uncovering and from motion; vomiting. After fever, hunger.

Sweat slight, exceptionally profuse; chilly from motion or uncovering. Quite characteristic of E. purpur. is chill beginning in the small of the back. This symptom, which the writer has

* Since the above was written I have cured many cases of intermittents where there was total absence of nausea and vomiting, other symptoms agreeing, with E. perfol. The same remark will apply to Ipecac.

verified several times, will serve to distinguish it from *E. perfol.* and *Nux vom.*, with which it might otherwise be confounded.

FERRUM METAL.

Chill, with *thirst*; headache; hot, red face; chilly all night.

Heat, with very red face and inclination to uncover.

Sweat profuse, long-lasting, and debilitating, worse from exercise and at night.

Ferrum will be of use chiefly in old, mismanaged cases. The symptoms of the paroxysm are not decisive; but when we find during the apyrexia general symptoms of anæmia; *pale, puffed face, flushing easily*; liver and spleen swollen and sore to pressure, and shortness of breath, we may expect much benefit from Ferrum.

GELSEMINUM SEMP.

Chill commences in *hands and feet*, with headache; very cold feet, with hot head and face; falls asleep during chill, or as the chill is leaving.

Heat, with *moderate if any thirst*; *sleep, crimson face*, half waking, with muttering; feels tired, and wants to lie still; nervous restlessness; sensation of falling (children start suddenly from sleep, cling to the crib or bed-covering, and cry out, "O mamma, I fall!").

Fever lasts far into the night, bordering on remittent, without subsequent sweat.

Gels. is often indicated in intermittents of children. The paroxysms predominate in the afternoon. The sensation of falling is a genuine symptom, quite characteristic of Gels., which I have verified several times.

IGNATIA AMARA.

Chill, with *thirst, relieved by external warmth*, with pain in the back and nausea and vomiting; chill of posterior part of the body.

Heat, without *thirst*, with intolerance of external warmth; beating headache; pain in stomach and bowels; vomiting of ingesta, with coldness of the feet; sleep; spasmodic twitching of the extremities.

Sweat, slight, without thirst.

Pyrexia complete. Ignatia is applicable to recent mild cases only, and chiefly among those occurring in women and young people.

IPECACUANHA.

Before chill, yawning, stretching, and backache.

Chill, *short*, with thirst (exceptionally without), aggravated by external warmth, with *oppressed* breathing, backache, nausea, and vomiting.

Heat, *long*, generally with thirst, headache, anxious, oppressed breathing, *much nausea* and vomiting, and *dry, hacking cough*; cold hands and feet.

Sweat profuse (especially after abuse of Quinia); dry cough continued; nausea.

Pyrexia is disturbed by gastric symptoms, loss of appetite, *nausea*; stomach feels relapsed, as if hanging down; very often indicated in intermittents wherever found. After abuse of Quinia it is the first to be thought of, but the practice of giving Ipecac. to every case of intermittent without an examination of the case, as recommended by Jahr and indorsed by others, is empiricism, and the physician who follows this plan will meet with disappointment. It has its special indications, and when these are present, and only then will it cure.

NOTE.—Nausea or vomiting not always present, and not necessary to make the choice certain. See note to Eupatorium perfol.

LACHESIS.

Chill severe, with slight thirst, chattering of teeth, and pain in the small of the back and lower limbs. Afternoon chill.

Heat with headache, oppression of chest, backache; *cold feet*; very loquacious, or sleep.

Sweat profuse, easily excited.

NATRUM MURIATICUM.

Chill *long and severe, with thirst*; with *blue* lips and *nails*, headache and backache; eruption of hydroa on lips; chill beginning at the feet and rising; chill at 10 A.M.

Heat long, with great thirst; horrid, hammering headache; obscuration of sight; nausea and vomiting.

Sweat profuse, with thirst and gradual relief of painful symptoms; or, more frequently, the headache continues during and after the sweat.

Apirexia. Eruption of fever-blisters on the lips; sallow complexion; tongue coated; feels dry; appetite poor; bitter taste; sensation of fulness of the stomach after eating even a little. (Similar to Lycopod.) Very languid. In recent cases the apirexia is clear of all symptoms.

Natr. mur. corresponds to severe, clearly defined cases better, perhaps, than any other remedy in our *Materia Medica*. Its symptoms are so decisive that there is no need of confounding it with any other. It should not be repeated too often. (Prof. J. C. Morgan says he has seen typhoid symptoms developed when it was repeated too often.) Typical headache coming on in early morning or at 10 A.M., after suppressed intermittent, is almost invariably cured by *Natrum mur.*

NUX VOMICA.

Before chill, debility, thirst.

Chill, hard with thirst; shaking; blue lips and nails. Chill aggravated by every motion, uncovering, and by drinking. Dry mouth; nausea and vomiting; backache. Or chill not fully developed, patient feels chilly only from every motion or draft of air. After chill and before heat is great, sleep.

Heat great, with thirst. *Cannot move nor uncover in the least without feeling chilly. Headache, nausea, and vomiting; pain in back and limbs.*

Sweat profuse, with chilliness from motion or allowing the air to strike him. Sweat brings gradual relief of pains.

Apirexia. There is headache, debility, soreness of the liver and spleen; poor appetite; constipation.

The very characteristic symptoms of *Nux vom.*, *chilliness during all stages, from motion or uncovering,* will serve to distinguish it from other remedies having other symptoms similar. It is often indicated.

OPIUM.

Opium is characterized by *deep sleep*, often with snoring; during chill, heat and sweat. Burning heat of the skin with red face. Profuse, hot sweat with inclination to uncover.

PULSATILLA NIGRICANS.

Before chill, *thirst*; diarrhœa.

Chill without thirst, with nausea and vomiting of bile or mucus; flashes of heat.

Heat without thirst (exceptionally with), with headache, nausea, and vomiting; diarrhœa; pain in the bones; *starting when falling asleep* (often in children); chilly from uncovering. In early months of pregnancy, labor-like pains with threatened abortion.

Sweat without thirst; profuse, alleviating.

The apyrexia is never clear, especially in old cases. There is constant chilliness; poor appetite; sour eructations; bitter taste; tongue coated; tearful mood; headache; palpitation of the heart; enlarged spleen. Often afternoon or evening paroxysm, lasting far into the night.

Pulsatilla is one of our most frequently indicated remedies for intermittents. Several times it has done the writer good service when administered during the febrile stage, when there were pains threatening abortion in the early months of pregnancy. Have also used for this complication *Cauloph.* and *Cimicif.* with good success.

RHUS TOX.

Before chill, aching in body and limbs; gnawing and stretching; dry cough.

Chill severe, without thirst (generally), with headache; backache; pain in limbs; restlessness. *Dry cough only with chill.*

Heat with thirst; headache; tired, *aching pain in body and limbs with frequent change of position.* Urticaria; diarrhœa with colic.

Sweat profuse, sour, with itching of the eruption. Headache and pain in body and limbs continue. (Exceptionally relief of pains.)

Apirexia. Urticaria disappears ; scabby, itching eruption about the mouth.

The characteristic pains and restlessness, and when found, the cough only during the chill, form a group of symptoms not often met with but calling plainly for the Rhus.

VERATRUM ALBUM.

Chill, long-lasting, not ameliorated by external warmth ; with thirst for cold water ; with very cold, clammy skin ; painful watery diarrhœa and vomiting. After the chill there is deficient reaction ; the patient no longer complains of being cold, although his skin is bluish, cold, and inelastic. *There is great general exhaustion and sinking of strength ; pulse small, weak, and slow, growing weaker and weaker.*

There is oppression of the chest with occasional deep-drawn sighs. The patient thinks he will die, and unless he gets Veratrum alb. or stimulants, or both, he may die, and the recurrence of such a paroxysm is much to be dreaded.

Happily such cases are rare, but when met with, the Veratrum will see our patient safely through.

ARTICLE IX.—Etiology of Intermittents.

BY A. McNEIL, M.D.

(Read before the Indiana Institute of Homœopathy.)

MY colleague on the Bureau of Intermittents, Dr. A. L. Fisher, and myself agreed to divide the subject, he to take the therapeutics and I the etiology. Thinking that my views are at least new, I was the more willing to leave the therapeutics to my colleague, as I am satisfied the work is in better hands than mine.

On a careful study of the etiology of intermittents, cholera and typhus, we are struck with the unsatisfactoriness of the views expressed, although all the standard authors are of substantially the same opinion. They state that heat, moisture, and decaying organic substances produce a gaseous matter which they call malaria, and that this malaria is the cause of intermittents and other ady-

namic febrile diseases. On the next page they state many facts which are utterly destructive of this theory, so that we feel that it is all involved in obscurity and uncertainty. This we find the better marked in proportion to the thoroughness with which the author investigates the etiology of intermittents. When such is the case we should not fold our hands and say: "Well, it can't be helped," but it is our sacred duty as physicians to read further and investigate more closely. I have read some works in German which I think throw light on this subject, and I bring the results in an imperfect way before you. I appeal to you to investigate this important question, so that by our united efforts we may attain the truth. In order to show that I have not exaggerated this inconsistency, I make some quotations from Aitken, Flint, and Ziemssen. The former says, vol. i, page 512: "The evidence regarding the geological nature of soil as a cause of ague is somewhat conflicting. It is a fact that the usual localities in which paludal fevers abound are those in which the soil consists of mineral, vegetable, and animal matters mixed together in such proportions, and of such constituents chemically, as tend to absorb moisture and retain it, and subsequently to decompose. Such soils are known as alluvial. Paludal fevers abound, however, where soils of a different nature predominate. Level plains of sand, or dry, loose, open gravel, are soils where malarial fevers have prevailed."

Ziemssen, vol. ii, page 584: "The theory has long been generally accepted that malarial poison is exclusively the result, in a gaseous form, of the decomposition of vegetable organisms (such as carbonic acid gas, carburetted hydrogen, and, according to Schwalbe, carbonic oxysulphide)."

In opposition to this view stands the fact that some marshy regions which present all the conditions for such products of decomposition (some districts of Alabama, Peru, and elsewhere), some of which are even surrounded by the most notorious malarious regions, remain exempt from the disease. It is no rare occurrence, where malaria prevails, to find that the sort of weather which, according to the theory, should favor its production (moisture, a high temperature, etc.) is accompanied not by an increase but by a diminution of the disease. Flint, 859. But that some-

thing more than ordinary vegetable decomposition is requisite for its production is sufficiently proved by the disease being indigenous in certain localities, whereas in certain districts and countries in which vegetable decomposition must take place abundantly the disease never occurs. And he also says: "Experience alone can enable us to decide as to the presence or absence of malaria in any given locality."

Authors, however, while acknowledging these contradictions, still state that heat, moisture, and decaying organic matter produce intermittents. Some mention is made of the production of the disease by microscopical animal or vegetable organisms; but as these, they acknowledge, are produced by the same causes which are supposed to produce intermittents, it is immaterial whether the disease is produced directly or by the agency of these microscopii. But there are many cases where all of these factors are present and, *mirabile dictu*, no intermittents exist. Aitken says, vol. i, page 511: "But although it has been observed that absolute marshes do not always produce agues." Hertz says, *Ziemsens's Cyclopædia*, vol. ii, page 564: "Instances occur, every now and then, in which, with every condition present for the development of malaria, this poison is entirely lacking. We cannot account for these exceptions, unless it be on the ground of the disinfecting properties of ozone, which is said to be largely developed in some marshes." Examples of this kind are to be found in many of the islands of the Pacific, in the warm swampy regions of the Australian coast, and, according to the recent accounts of Jourdanet, in the city of Mexico and its vicinity, a region offering all the conditions ordinarily resulting in malaria. Before the very gates of Mexico lies the lake Tescudo, about twenty-five square miles in area, composed partly of fresh and partly of brackish water, with a clay bottom, which is often laid bare over large areas as the result of evaporation, with a temperature of from 122° to 140° Fahrenheit, and notwithstanding all this malarial fevers are rare. L. C. Morse, M.D., writes in the *United States Medical Investigator*, vol. iii, page 364: "The writer, with all due deference, begs to say that he has had considerable experience with cholera, yellow fever, and other epidemic diseases, and, with his attention directed specially to this subject, has yet to discover any

connection between the amount of so-called filth in any locality and the virulence of these visitations." He has repeatedly observed, however, that those portions of a city which, according to those ardent sanitary disciples, ought to be most severely scourged, have often been lightly afflicted, sometimes escaped almost entirely; while, on the other hand, the high, dry, well-ventilated, well-drained quarters have suffered most severely. Prof. T. P. Wilson writes in the *Advance*, vol. iii, that in the summer of 1873 one of the main sewers of Cincinnati broke so that portions of the city were almost uninhabitable because of the intolerable stench, and yet the health of the city was better than usual.

Intermittents also prevail where some or all of these factors, heat, moisture, and putrefaction are absent. Hertz says, Ziemssen's *Cyclopædia*, vol. ii, page 566: "It has long been known that malaria may exist on a dry soil, or in mountainous regions even at a considerable height (although the dissemination of the poison is more in a horizontal than in a vertical direction), and that in the latter case it is often more extensive and severe than in the adjoining low country. On the Tuscan Appenines fevers are to be found at the height of 1100, on the Pyrenees at 5000, on the island of Ceylon at 6500, and in Peru at 10,000 and even 11,000 feet. At the same time the neighboring plains are either entirely free or are visited by the disease in a much milder form." On another page he says: "Furthermore, a number of extensive districts are known which are entirely free from the influences attributed to marsh-lands, from surface water, dampness, etc. Among this number are to be recorded the high plateaus of Castile, the plains of Araxes, the terrace lands of Persia, the table lands of India, the island of Kutch, and the island of Ceylon." Aitken says, vol. i, page 512: "Rocky places, Cindad, Rodnigo, Gibraltar, and Malaga have now and then been ravaged by epidemics of litoral and paludal fevers, and the rocky shores and islands of the Mediterranean—for instance, Minorca, Sardinia, Sicily, Cephalonica, and all the Cyclades—abound as much in fevers as the most level parts of Holland; and the West India Islands, the most of which although coralline rocks, are the native soil of these diseases." Eisemann says, *Vegetative Krankheiten*, Seite, 177: "Finally, intermittents are indigenous where

water entirely fails and where there are no exhalations from putrefying or decomposing matters. I refer to intermittents at Corea, in Estramadura, in the elevated parts of Castile, in the arid and desert neighborhood of Volterra, in Cyprus, where fresh water frequently entirely fails, in Georgiewisk, in the vicinity of the Steppes, in the arid Ispahan, on the Gnauts of Hindostan, on the heights of the coast of Malabar, and on the heights of the interior of Ceylon, where, as on the coast of Malabar, it is called mountain fever."

At long intervals intermittents, instead of lurking in marshes, have marched forth and devastated localities where they were previously entirely unknown, and have even swept over the world as a pandemic, and what is still more inexplicable by the malarious theory have changed localities without any known cause. Ziemssen's *Cyclopædia*, vol. ii, page 567: "Instances are on record where earthquakes or volcanic eruptions have been followed by the appearance of malaria where it was previously unknown, and it is equally difficult to account for the prevalence and disappearance of malaria in certain places where no changes whatever have occurred in the relations of the soil; and we are thus forced to the conclusion that standing water and marshy soils are not the only factors concerned in the production of malaria."

I think that the facts I have collected are a sufficient demonstration that we must review the etiology of intermittents, cholera, typhus, and the like.

I will now give briefly my views on this subject, but it is impossible to give more than a mere outline without transgressing the limits of a paper of this kind. I will, therefore, be unable to prove satisfactorily for this reason all the points, in support of what I may call the electrical theory of the cause of intermittents and kindred diseases.

There are three primary factors which contribute to the production of diseases of an endemic, epidemic, and pandemic type. These are electricity, terrestrial magnetism, and evaporation. There are other atmosphero-telluric influences of less importance. The genus epidemicus is, of course, regulated by these influences.

For convenience we may divide these into those which increase, and those which depress the vital activity.

The influences which increase the vitality are the positive electricity of the atmosphere ; a high or medium intensity of the terrestrial magnetism, and a high or medium rate of evaporation.

Those which depress the vitality are negative electricity, a low intensity of the terrestrial magnetism, and a low rate of evaporation by which the atmosphere is usually moist, and also when the rate of evaporation is subject to very great changes.

I will now endeavor to show the effects of each of these agents. Positive electricity which produces an ozonic condition of the atmosphere, makes the blood a brighter red, less watery, richer in red corpuscles and fibrin, warmer and more negatively electric, particularly the corpuscles. Blood in this condition is more strongly attracted to the periphery, for this reason there is manifested a disposition to determination to the capillaries, particularly those exposed to the atmosphere, and which readily passes into actual inflammation.

One who is subjected to the action of positive electricity, appears to receive heat and vitality. His blood becomes warmer ; he is more cheerful, courageous, and combative ; in short all his mental and physical powers are more energetic and impetuous.

A high state of the terrestrial magnetism accelerates respiration, the circulation of the blood, and all the vital functions. The blood is more arterial ; pulse quicker, consequently the whole vital process, the muscular powers increased, and the mental functions and the entire nervous system is stronger and more active.

An excessive or deficient rate of evaporation acts injuriously ; an excessive causes an increased attraction to the surface, which is manifested by eruptions of all kinds. The character of these eruptions is decided by the influence of the other factors ; for instance, if an excessive, negative electricity and a low state of the terrestrial magnetism have prevailed for a long time, we will have adynamic and even septic eruptive fevers, typhus, small-pox, and even plague. If the electric and magnetic conditions are of the character to produce catarrhs, and an active evaporation accompanies, we will have measles. A moderate rate of evaporation causes a determination of the humors to the periphery which is beneficial. A low rate of evaporation lessens the attraction to the surface, and consequently the humors fall back towards the vital

organs, oppressing and deranging them. The blood becomes more venous and watery. The low rate of evaporation favors the production of diarrhœa, and if an extreme low rate prevails, it is an important element in the production of cholera. The production of dropsy is favored by this repulsion of the humors.

An increased rate of evaporation increases the quantity of perspirable matter excreted by the skin, viz., water, the hydrocarbons, and ammonia. In this way the blood will be less watery, richer in corpuscles, better decarbonized, more arterial, and better adapted to all the vital processes.

The atmospherotelluric influences which depress the vitality, are negative electricity, a low state of the terrestrial magnetism, and excessive or very low rate of evaporation.

Negative electricity polarizes the nitrogen of the atmosphere, or produces an antiozonic condition of the air. The blood becomes more venous, blue, even black as tar (carbonized). It becomes lymphatic, albuminous, watery; its fibrin decomposed and disposed to exudations through the capillary walls. The vascular system appears relaxed and paralyzed, and passive congestions of the internal organs readily occur as well as in the vascular system itself, and therefore passive hemorrhages take place. Consequently, when an intense negative electricity prevails, hemorrhages, abortions, morbus niger Hippocratis, apoplexia, headaches, and the like occur, because of the increased pressure of blood to the brain.

The blood loses its irritability, the vascular system becomes relaxed, consequently it is with difficulty excited to febrile movements, and the organism often bears for a long time profound disturbances without manifesting much febrile reaction or other positive morbid phenomena.

There occur during the prevalence of negative electricity, spasms, faintness, and vertigo. Diseases of the brain and spinal cord are prevalent.

The mental powers are duller, indisposed to intellectual labor, spirits depressed, and many complain of an unpleasant nervous excitement without any apparent cause; consequently those afflicted with hysteria and hypochondriasis are worse, and may be on the verge of distraction.

During this condition dropsy, scorbutus, and chlorosis are aggravated, and a greater tendency to gangrene exists.

When the blood is loaded with carbon and the hydrocarbons the liver is forced into greater activity, for it is the organ to which is assigned the removal from the blood of those matters when superabundant. This activity is of course accompanied by an increased determination of blood, but as the liver partakes of the relaxation of the whole system, so it is subject at such times to congestion and obstruction, and therefore to well-marked disease. During the prevalence of negative electricity all chronic hepatic difficulties are aggravated, consequently icterus and melanosis are frequent. Bilious diarrhœa and a great disposition to vomiting and purging occur. The negative electricity is the chief factor in the production of all varieties of diarrhœa. *Intermittents of a benignant or malignant character prevail according to the intensity and continuance of this state of the atmosphere.*

The injurious effects of a low state of the atmosphere may be inferred from what I have said of the effects of the opposite condition.

The evil effects of a low rate of evaporation is shown by a lessened attraction of the humors to the surface and the consequent oppression of the vital organs. The blood is in a measure withdrawn from the influence of the atmosphere and is therefore more venous and watery.

When the blood is driven from the periphery it oppresses the mucous membranes and causes disorder in them. The production of diarrhœa in all its forms is promoted, and a very low rate of evaporation is an essential requisite in the etiology of cholera. In this condition catarrh of the respiratory tract, stomach, and liver (catarrhal icterus), and of the generative and urinary organs prevail. Dropsy is very much aggravated. But this condition of the air is usually accompanied by much moisture in the atmosphere, which retards the secretions from the skin. Consequently retention of the effete matter occurs and hereby rheumatism.

The changes occurring in these primary factors, assisted and modified by the less important ones, are sufficient to account for the epidemic and endemic influences which stamp their character

in all acute diseases, and even exercise an important influence on chronic ones.

But these factors are modified by local causes; volcanic eruptions have a well-marked effect as is attested beyond a doubt. Shallow, sluggish water is also a powerful agent in producing conditions of the electric and magnetic state of the atmosphere, which produces intermittents and other adynamic diseases. If the water is salt the effect is greater. Who has not been struck by the unsatisfactoriness of the explanation why salt marshes were more unhealthy than fresh ones? viz., that owing to the meeting of salt and fresh water the vegetation is killed and decomposition was therefore more active. But nature has fitted the vegetation of those marshes to bear the changes to which they are exposed. On the coasts of the Adriatic those localities are more severely affected with intermittents at the times they manufacture salt, by forming large ponds of the sea-water by means of dikes. Before the beginning of these salines and after their discontinuance there is much less of this disease. Here is no decaying organic matter, but merely the shallow salt-water exposed to the rays of the sun, forming, as it were, gigantic galvanic batteries. The sanitary history of Trieste and places on the Adriatic shows the effect of these salines on the public health.

How can the prevalence of intermittents in single houses be explained, or on one side of the street, or in the lower story of the houses, or that in some of the marshes of Hindostan a man can pass through on horseback in safety while those on foot are almost certain to be attacked by ague? The law of the diffusion of gases certainly excludes the confinement of gaseous matter in such limited spaces. But electricity is subject to different laws, and moist exhalations may be loaded with electricity while the surrounding dry air is very scantily impregnated with it.

Another fact, which utterly excludes the popular theory: In Italy and Malta, experience has taught the inhabitants that a veil over the face protects from the bad effects of marsh exhalations. The ague must be in large lumps, to be sifted out in this way?

Eisenmann says, "I maintain that neither marsh air of itself, nor certain gases which it contains, nor the exhalations of putrefying vegetable matter of themselves, cause intermittents; but their

production is conditioned by the presence of free electricity, which may occur in marshes, on dry or inundated plains, and even on mountains, particularly in volcanic regions, which may be occasioned by the galvanic order of the earth's strata, or by the extensive water surface of marshes." But I add that the quantity of the electricity thus developed may be increased by the same conditions which increase the general (atmospheric) electricity; that the usual electricity by temporary causes may take the conditions which produce fevers in usually healthy locations; that besides electricity, probably there are other influences at work, as atmospheric moisture, heat, and changes of temperature.

I have been compelled to trespass on your time and patience to an almost unpardonable extent, but I was not able to give an outline of the theory, and to discuss the evidence against the accepted theory and in favor of the one I have advanced in less. I ask you to investigate this question, read and observe, and you will be amply repaid.

I lay no claims to originality, but the works from which I have drawn the most of this paper, *Eisenmann's Krankheiten* and *Horn's Krankheiten zeugung*, are not accessible to the English reader. I thank you for your attention.

ARTICLE X.—*Thuja occidentalis*.

BY DR. H. GOULLON, JR.

(From the Allgemeine Homöopathische Zeitung, Leipzig.)

INTRODUCTION.

WE are not now to consider one of the more recent additions to our *Materia Medica*. Hahnemann himself mentions the work of the provers of "this uncommonly powerful drug" as "a great enriching of the *Materia Medica*," and perceives in the pathogenesis of *Thuja* elements of value in overcoming some of the severest maladies of humanity "for the cure of which until now no means have been found." Certainly here is ground enough for the prosecution of our inquiries concerning its curative power.

To Hahnemann and his contemporaries was lacking that fund

of clinical experience from which we draw. They were in danger of placing too narrow or too wide boundaries upon the sphere of its activity. As years pass, however, we see the province of Thuja in no uncertain light, and it is here that our eyes are directed toward the true aim and object of our labor. The opportunity lies before us to stand face to face with the teachings of sycosis, from which Thuja is as inseparable as is Sulphur from the Hahnemannian Psora or Quicksilver from syphilis. We may lift the veil which precludes insight into the existence and nature of that sycosis, and, in the light of indisputable facts, throw aside the mystery surrounding it.

Interest will also be awakened in the homœopathic therapeutic relation of this drug to Nitric acid. We may investigate this field of inquiry as well as that furnished by its relation to Natrum sulphuricum. We shall consider, farther, how many or how few cures performed by it belong to the dyscrasic diseases, be they the expression of the so-called sycosis or not, and how many to the non-dyscrasic.

Although we enter upon our task with confidence, we are not unmindful of the difficulties attending theoretical discussion and reflection. The resolution of one problem often gives rise to others no less difficult of solution.

“Es wird sich manches Räthsel lösen,
Doch manches Räthsel knüpft sich auch.”

The monographist cannot depend wholly on himself and his personal experience. We confess it frankly, it is oftener the want or incompleteness of the latter which furnishes the moving impulse toward such an undertaking. Indeed, it has been our hope that by this work we might learn as comprehensively as possible the physiologico-therapeutic nature of Thuja, and thus lay bare and render fecund a former terra incognita. Moreover, if the aim is to be fully carried out, the experience of *all* must be made to serve as parts from which the artist will create an harmonious whole. So also scattered notes, passed perhaps in the hasty perusal of a medical journal, will be recalled for classification, and from a new standpoint gain a new meaning.

Rummel, indeed, was a believer in the efficacy of this drug,

and to him we owe, not only numerous valuable examples illustrating the characteristics of Thuja, but also many facts about sycosis.

Is there no significance in the unanimity with which the English, French, and Germans designate it *the tree of life*? *Nomen omen* it is said, and in truth we shall often have cause to exhibit it as a veritable "tree for the healing of the nations." When medicines, curative at other times, fail to act, and hope seems to have died out of the invalid's breast, then under the influence of this drug he is called back to health as enjoyable as unexpected, as marvellous as sure. But closer inspection narrows it down from the atmosphere of magic to the solid ground of science, a science wholly skeptical of the miraculous whether in medicine or theology. In this case it is that science for which Hahnemann's genius created a new and marvellous realm.

I.—BOTANY.

The common name is *occidental or West Indian tree of life*. "This tree," says Linnæus, "which is also known as *the common tree of life*, is native to Siberia, but belongs more especially to Canada and other North American countries." Its cultivation has, however, been successfully carried on in European gardens. It prefers cold countries, so that in going south to New York and other Northern States it gradually diminishes in size and vigor and finally disappears. The conditions most favorable to its growth are a damp, marshy soil, or an elevation abounding in mosses. Its leaves, which are oval, emit when rubbed an odor disagreeable to many persons, and are green the year round, being, however, of a paler hue in winter. It blossoms in the spring and the cones are ripe in autumn. They are elongated, and have one or two seeds under each scale. The cone-seeds are rough and blunt. The Canadians assert that of all varieties of wood necessarily exposed constantly to the air this longest resists rot, and assert that it may lie without destruction for more than a generation. It furnishes them with fuel, and is generally useful in minor carpentry.

II.—EMPIRICAL USE.

As early as 1777 Linnæus informs us that the savages, by the application of heat to a mixture of fat and the young shoots or leaves of this tree, made a salve which, applied as a poultice, served as a palliative to rheumatic pains in the extremities. They used also a decoction of the same internally for cough and intermittent fever. Parkinson also employed Thuja for coughs accompanied by a tough expectoration, and for gouty pains, and Boerhaave for fever and ague, dropsy, swellings, and excrescent tumors. According to Rafinesque, the oil is an important remedy for rheumatism, the decoction of leaves for coughs, fevers, scorbutus, gout, etc., and the solution for dropsy. That is almost all that we know concerning its use in medicine prior to the time when Hahnemann pointed out the indications for single drugs according to a clear natural law, by which we saw the drug in a new light and were enabled to successfully apply it to its specific object. In no case, however, do we see that the later indications stood in direct opposition to those previously discovered. Be that as it may, the collective experiences with *Arbor vitæ*, as prescribed for dropsy, intermittent fever, rheumato-arthritic pains, and, above all, excrescences, were metamorphosed by the discoverer of the law of similars into single definite indications, which alone can assure a successful clinical result. His investigations are the more inspiring to our confidence, by their pronounced harmony with the botanical status of Thuja. Whoever is conversant with the peculiar curative relation of balsams and resins to genito-urinal diseases, will comprehend the value of the pathogenetic Thuja symptoms in this direction. Beyond a doubt it was Hahnemann who first pointed out the significance and weighty relations of Thuja to certain specific diseases of the sexual organs, and called the attention of therapeutists to these lasting, yes, hereditary diseases. At that time these discoveries of Hahnemann were interpreted (without regard to the law of similia and its inseparable companion, homœopathic posology) to mean only the introduction of a new anti-syphilitic remedy, applicable in cases where there were condylomatous excrescences. Thus we see among others the illustrious Hufeland giving full credit to Hah-

nemann, while he confirms in no uncertain words the anti-condylomatous power of Thuja.

John (*Casp. Wochensch.*, 1834) perceived in the juice of the *Arbor vite* a successful curative agent for fig-warts, using it externally and in connection with preparations of Quicksilver.

Fricke (1838), Warnaz (1838), Näser (1841), and Mohnicke (1842) join in giving accounts of cases of condyloma cured by them by external applications and otherwise. In these cases an explanation of the differing pains and effects produced may be attempted on the ground of the different strengths of the Thuja preparations, but it would seem more probable to make individual tolerance an intolerance answerable therefor.

III.—THUJA AND THE HYDROGENOID CONSTITUTION.

As certainly as we speak of bodily constitutions which are adapted to the use of *Nux vom.*, of *Bell.*, of *Sulph.*, etc., so surely Thuja has its own individual relations. Above all, we may say that this remedy has two extensive and, indeed, inexhaustible specific relations; the first is to the Hydrogenoid bodily constitution, and the second is to that disease known in pathology under the name of sycosis, a thoroughly characteristic form of disease. We can observe its growth *ab origine*, and trace it to its point of origin in parents and grandparents, or more recently perhaps in the person himself. It is of no essential importance which of these relations we observe first. For convenience sake, we will first take up sycosis. The hydrogenoid constitution is related, according to Grauvogl, to sycosis as effect to cause. Whether we say that sycosis has its growth in hydrogenoid soil, or that the hydrogenoid constitution is an effect of sycosis, in either case there exists between them the most intimate relations; and whoever understands and has learned thoroughly to discover, by the practical indications given us by Grauvogl, the hydrogenoid constitution will have the fullest opportunity to enrich his knowledge concerning the curative powers of Thuja.

The hydrogenoid constitution is distinguished from the oxygenoid and the carbonitrogenoid, in that it is more hygrosopic, *i. e.*, it possesses an increased capacity to contain water. Accord-

ingly, from this cause, or this incongruity, arises the antipathy of this constitution to cold, damp weather, and rain. To this we may also attribute its sympathy for those materials which contribute to the production of heat, and thus are capable of setting aside the influence of water. In this category belong all those substances which engender a union of oxygen with hydrogen and carbon. Therefore, *cæteris paribus*, we may give the preference to those remedies which we have mentioned, in individuals of a hydrogenoid constitution, provided that in so doing we make no thrust at the law of similia. We perceive furthermore that baths, because they increase the number of molecules of water in the organism, aggravate the symptoms of the hydrogenoid constitution. So also the eating of the flesh of animals which have lived in water, as well as fishes, acts disadvantageously in those cases, because thereby the attraction of the organic molecules for water is increased. The same thing results from living over water, especially standing water, and, as we have mentioned before, from cold. But, enlarging upon the idea, it is not only cold, atmospheric air, but also the cold and cooling articles of food and drink, as sour milk, hard-boiled eggs, cucumbers, mushrooms, etc., that are injurious.

But not alone from these aggravating causes may we diagnosticate the constitution in question, but as well in the periodicity of the symptoms; in their variable course with days, weeks, and even months of interim. This characteristic indication leads Grauvogl back to the influence of the nervous system, which, including the brain, possesses by far the greatest water capacity in comparison to other parts of the body, and is easily affected by an oversupply. By reflection this may disturb the entire organic tissue and the blood.

In our opinion the reason for the periodicity is not sufficiently elucidated by that theory. Electrical disturbances of the weather, which give rise to an equalization of terrestrial and atmospheric electricity, belong to these aggravating causes. We might mention here that the influence of a thunderstorm cannot be underestimated. If we do not accept all of Grauvogl's always clever theories, it cannot be denied that they contain many truths and are valuable in practice. If in one instance anamnesis explains

to us which constitution we have to deal with, at other times the form which the disease assumes answers the purpose. Thus in cases of intermittent fever and certain forms of rheumatism, we are obviously authorized to infer the existence of such an anomalous condition of the blood. At any rate the treatment is more difficult to determine, if we do not take into account these theories, simply because they are here and there controvertible. Although Grauvogl considers Nat. sulph. as the remedy most specific in paralyzing the influence of the hydrogenoid constitution (as Ferrum to the oxygenoid and Cuprum to the carbonitrogenoid), yet Thuja is as indispensable in many other cases; so that he attributes to it a great share in the complete *cure*. This is so much the more easy of comprehension when we consider how often there is a complication of sycosis with the hydrogenoid constitution. Indeed, as we have already remarked, in the belief of many authors, sycosis embraces only the secondary disturbances of a specific gonorrhœal infection in individuals burdèned with the characteristics of the hydrogenoid constitution. Thus, as sycosis may remain latent for years in the body, even in those who have never received sexual infection, so we may believe that the hydrogenoid constitution may also remain latent to a like extent.

While upon the consideration which the hydrogenoid constitution bespeaks under all circumstances for the use of Thuja, it will be profitable to consider the "practical examples" which Grauvogl (p. 299, vol. ii, *Text-book of Hom.*) considers as belonging to that constitution. By the phenomena accompanying those examples his diagnosis may be rendered clearer. The first example is of a woman twenty-nine years old, who suffered continually from headache, located in the forehead, extending to the vertex and occiput. At the height of the attack she was obliged to lie motionless in bed three or four days. There was frequent gastralgia, with sour, watery eructations. Grauvogl diagnosed the existence of a hydrogenoid constitution by the following symptoms:

1. In the morning, after awaking from an unbroken but not refreshing sleep, cataleptic attacks nearly every day.
2. In wet weather the headache always appeared worse.
3. Every bath aggravated the suffering.

4. The headache was aggravated in the afternoon or evening with periodical increase of intensity.

5. She suffered continually during frost, and had cold hands and feet even in summer. Nux vom. 3 and Ipecac. 3, given May 1st, allayed almost entirely the cataleptic troubles until June, and the headaches ceased to be aggravated in the evening.

6. Relapse after a lake voyage in the Bavarian highlands, since which she has had chilly sensations and the headache grew noticeably worse. *Aranea diadema* 2 (4 or 5 drops every two hours), lessened, according to Grauvogl, the injurious effect of watery substances even more than Nux and Ipecac. Her color increased, and after two weeks the headache diminished in intensity. On the 15th of September the headache finally disappeared.

The second "example" is that of an art student, twenty-three years old, reduced by large doses of Quinine (20 grains each), which had failed to cure an intermittent fever. He had a constricted feeling about the chest which, in the confined air of a room, left him breathless. The presence of the hydrogenoid constitution was inferred from—

1. The intermittent fever itself.
2. Enormous swelling of the spleen (the upper border reaching to between the third and fourth ribs).
3. His house was close by the water, and had damp walls; a sufficient cause to account for a relapse of the former suffering.
4. The patient is chilly day and night.
5. And is worse always during rain. *Aranea diadema* (2d dec. dil., 4 or 5 drops in a spoonful of water every two hours) restored him. The edge of the spleen sank in the course of three weeks to the seventh rib. The dislocated heart was replaced in its normal situation, and the compressed lungs again emitted the usual sounds of respiration.

The following "examples" are, in the light of our undertaking, yet more instructive in that here pronounced indications of sycosis are at hand, also a combination, if we may be allowed the expression, of gonorrhoeal infection and the hydrogenoid constitution.

A vigorous young man, of herculean proportions, healthy, florid appearance, and merry disposition, experienced an alteration and depression of mind. The troubles which really contributed

thereto appeared, in themselves, so inadequate, that by the advice of competent authority nothing was prescribed except that the attack by which it manifested itself should be banished from his mind as quickly and entirely as possible, whenever it occurred to him. What then was this attack? In complete health, the patient was suddenly seized with a violent stitch in the left hip, so that locomotion was almost rendered impossible, and the foot appeared to have lost the power to support. The pain momentarily robbed him of consciousness, and he almost fell; it would have been unendurable had it lasted a minute, and was more violent than the pain caused by the drawing of a tooth. No less a riddle than its unexpected coming was the sudden disappearance. The entire attack lasted only about three seconds, after which the patient was able to proceed on his way. The third time it seized him the pain extended to the knee-joint. This, and especially the fear of a return of the terrible attack, left the patient no rest. He desired help at any cost. Grauvogl perceives now, in the characteristic paroxysm of pain, a "prelude of the highest and most violent species of sycosis." A further confirmation of this opinion, he saw especially in this case, in an exanthema of the chest, that was not visible in summer and winter, but appeared as certainly on the advent of spring. Three years previously a physician had treated with Lapis some light-blue spots on the lips, which disappeared in a few days. This was followed by the depressed mental condition, which he could only overcome with difficulty. Moreover the patient would not confess that he had received sexual infection. Grauvogl treated the patient with Nat. sulph., which he never finds indicated in syphilis, but often in sycosis, because *Glauber's salts* is capable of restraining the hurtful influence of a surplus of water in the structure and organism, and more especially in the blood.

While Virchow has pointed out a surplus of water in the blood in the before-mentioned types of sycosis, which are known under the name of leucæmic diseases, Grauvogl considers such an increase of water as the first beginnings; for an instance we have only to turn to the above. Finally must be noticed the especial pathogenetic relation of *Glauber's salts* to the hip and knee-joints. The indications for *Glauber's salts* coincide in many instances with

those of Thuja. This leads us to another important field of investigation. Directing our attention to the world-renowned hot springs of Karlsbad, we observe that they contain as their chief ingredient *Natrum sulphuricum*. A pound of spring water contains:

Sulphate of potash,	9.8696
Sulphate of sodium,	14.9609
Chloride of sodium,	8.7245
Carbonate of sodium,	9.0624
Calcium carbonate,	2.0198
Magnesium carbonate,	0.8994
Ferric carbonate,	0.0307
Aluminum,	0.2150
Silicates,	0.0500
	<hr/>
	44.5834
Carbonic acid,	1.2787

The hydrogenoid constitution is adapted to these constituents, and the many cures at Karlsbad may be due to a pathological condition, although perhaps the physician who counselled the journey to these springs may have been in total ignorance of its existence, and the indications of the hydrogenoid constitution may not even be known to him by name. But if Karlsbad and *Nat. sulph.* are equivalents, a like equivalent, with certain reservations, might also be perceived in Thuja. Taking leave of these considerations, however, and commending them to the investigations of future therapeutists, we are already, imperfect as is our knowledge, in a position to designate those diseases cured by Thuja and the waters of Karlsbad. To these belong a special order of headache, and in truth its severest form, as well as cases of diabetes, of gout and "Gicht der Jugend," glandular swellings, cutaneous eruptions, ophthalmic inflammations, etc.

We do not deny that this peculiarity rests in common in the alkali salts, nor do we dispute that the ingredients occurring in small quantities, among metals, iron, manganese, copper, antimony, tin, and lead; also the compounds of arsenic, iodine, bromine, selenium, and chromium, increase the efficacy of the water in an unaccountable manner, or at least specifically modify it, yet the preponderance quantitatively belongs to *Nat. sulph.* The

proportion is Sodium 32 grains in 7680 grains of spring water. The component iron is not to be underestimated as to its value as an adjuvant of Nat. sulph., as we shall see later how Ferrum often seconds the effects of Thuja, and no homœopath will consider the resemblance exaggerated which we have drawn between the homœopathic and commonly accepted hydropathic relations of these two drugs, especially when he considers the effects which insignificant roots will bring about in the taste and digestive capacity of an article of food. Although we have in the choice of Thuja no "liver crisis," no "Karlsbad stool" to specify, yet we are reminded of the critical appearances observed in the course of a cure, by the burning, itching eruptions, by the thick perspiration, by the secretion of very clear or muddy urine. Beyond all this, however, and more than theoretical conjectures, we have a condition by which Karlsbad is an equivalent of Nat. sulph. *ergo* of Thuja. Karlsbad increases the production of warmth, and thus averts the injurious influence of cold, confessedly the chief enemy of the hydrogenoid constitution. A competent authority on this subject, Dr. Gustav. Hauck, lays such great stress upon the inherent warmth of this spring water, that it appears a confirmation of the saying of Prof. Wunderlich: "If there is a universal remedy in medicine, it must be allied in nature to damp heat in all its forms." That epigram might be accepted as embracing the weightiest conditions which Grauvogl's hydrogenoid constitution presents, and which appear designed to extend the therapeutic circle of Thuja's activity, were it not that to the knowing ones, any generalization which shall be in the nature of a universal axiom applicable to all possible problems, is deservedly an object of fear.

IV.—THE THEORY OF SYCOSIS.

Light, more light! we might exclaim at sight of the many divergent and contradictory ideas and opinions advanced in regard to this disease; and yet upon the right perception of its nature rests the possibility of exercising the unsurpassed curative powers of this drug. We shall attempt to establish that the sycosis of dermatology is something entirely distinct from Virchow's sycosis; that the latter, because too limited in extent, cannot be identified

with Grauvogl's representation of sycosis, although as we shall see immediately they have some points in common; finally, that the sycosis of Hahnemann, the true field for the exercise of the curative powers of Thuja, appears still different from all three of the above-named varieties.

1.

We may pass hastily over the sycosis of dermatology; although it be the expression of a specific disturbance in the system, yet it can only be classed correctly as an independent cutaneous disease, perhaps as we would speak of lupus or of a thoroughly understood variety of herpes. This species is also designated *herpes of the beard*, or *mentagra*. Alibert calls it *mentagra pustulosa*. Besides they have the name of fig-moles, which expression appears to contain an allusion to the fig-warts, which will occupy some of our attention in this discussion. It is also the same sycosis which is known as an obstinate and, especially for external allopathic interference, a very persistent eruption. It is marked by successive eruptions of little pointed pustules distributed unevenly or in groups on the chin, the upper lip, submaxillary glandular, and lateral portions of the face. The presence of parasites marks it as having little in common with the universal constitutional symptoms of sycosis as described.

2.

Virchow's sycosis agrees in many respects, however contradictory it may sound, with the observations of former physicians upon this subject. Otherwise Grauvogl could not say as he did occasionally: "If we read the writings of former physicians concerning their sycotic forms, we might almost believe that we were listening to Virchow as he describes cases, which he with microscopic analysis placed under the heads of leucæmia, or fibrous clot, or pathologico-anatomically, thrombus and embolus." "The distinction," he continues, "is no other than that to be found in the fact, that the ancients viewed these subjects *in extenso* and *ab origine*; that they made use of differential diagnoses, for example, between sycotic and tubercular phthisis, between sycotic and croupous inflammation of the lungs, between the glandular swell-

ings of scrofula and those of a syctic nature. But with Virchow there is such an inextricable confusion, such labor and discussion, such a desperate striving to discover *cause* and *effect*, and oh, such a hopeless separation of connected pathological processes, that no stronger example of chaotic, aimless exertion will appeal to our attention, than does this; claiming as it does the title of 'physiological medicine,' priding itself upon its exact knowledge, and superciliously looking down, from the height of its uncertain experiments, upon all other scientific work."

Virchow has, according to this estimate of Grauvogl, furnished only a diminutive indication of the traditional sycosis, whose characteristic consists in a superfluity of white and a deficient supply of red blood-corpuscles; it is not to be overlooked, in passing, that the digestive function as well as pregnancy render the blood syctic, in the meaning of that term as used by Virchow. And he says later expressly that what he has designated as leucæmia, is really as distinct from the inflammatory, typhus, septic poly-leucocythæmia, as chlorosis is distinct from the anæmia of cancer or hæmorrhage.

While Virchow originally observed his leucæmia in connection with splenic tumors, later he discovered that there was a change in the blood of the same sort *without* the splenic tumor, but *with* an as yet unknown species of lymphatic tumors, by which the blood became loaded with colorless, partially plasmatic, partially cellular particles. One of Virchow's favorite theories appeared thus to be realized, "the dependence of dyscrasia upon the disturbances of certain organs, in this case of the lymphatics." What induced, then, we might here inquire, the disturbance of these organs? Who will convince us that it is no secondary process itself? For this reason we may be distrustful of the inference which Virchow ventures to draw from his two cases. It would be better, as well in the case of the splenic as in the lymphatic form of leucæmia, that we assume that the metamorphosis in the spleen and lymphatics was pre-existing to the dyscrasia. It might be present months and years before the change in the blood was brought about, and the special variety of the latter is dependent upon the nature of the preceding organic disease.

Of very great interest is the pretended *new* discovery of Vir-

chow of a set of symptoms which are noticed in the course of leucæmic disturbances, but which, on a closer examination, resolve themselves into those mentioned by observant authors before and since Hahnemann's time, in a word, into the very latest described symptoms of sycosis. A later pathology describes the symptoms of leucæmia thus: The malady develops itself gradually and insidiously; now and then there is a lurking and intermittent advance of the disease. Generally it begins with painless enlargement of the spleen and single lymphatic vessels. Later, when the enlargements have increased, the patient complains of fulness and pressure in the abdominal region, constricted respiration, difficulty of motion, inertness and sluggishness of the muscles. The healthy flesh-tints take on a tawny and pale appearance. Physical examination discloses a considerable enlargement of the spleen, often also of the liver, and eventually of the lymphatics, as far as they are exposed to palpation. The diagnosis will be assured by placing a drop of the blood under the microscope. Candlelight thrown upon the object at an angle of 45° will disclose what sunlight does not, viz., the blood-corpuscles.

Afterwards very violent hæmorrhages set in, which exhaust the invalid, and bring death in their train. They are generally in the form of epistaxis, but appear also as hæmorrhages of the intestinal canal, of the skin, lungs, and brain. The leucæmic urine is acid and contains hypoxanthin. If death does not follow the exhaustion incident to the hæmorrhages, the malady often lingers along many years. It is generally accompanied by catarrh of the fauces and of the intestines, which give rise to a high degree of emaciation and dropsy.

(To be continued.)

ARTICLE XI.—Provings and Clinical Uses of *Grindelia robusta* and *G. squamosa*.

BY E. M. HALE, M.D.

(Professor of Materia Medica and Therapeutics in the Chicago Homœopathic College.)

GRINDELIA ROBUSTA.

FROM a communication by Dr. Fiske, in the *Eclectic Medical Journal*, we learn that the *Grindelia robusta* is an herbaceous

plant, perennial, and a native of the Pacific coast between the twenty-eighth and fifty-second degrees of north latitude. Its height varies from a few inches to two or three feet. It resembles somewhat the common Sunflower, and is known as the Wild Sunflower.

Lately it has come into notice through I. G. Steele, a chemist in California, as a remedy for the poison of *Rhus tox.*, and by others as a valuable agent in the treatment of asthma.

It is a demulcent as well as a stimulant, and makes a good dressing for vesicated surfaces. For burns, the fresh herb bruised and applied frequently over the injured parts relieves the pain, calms the sufferer, and often sleep follows where formerly intense torture had existed. It is one of the best remedies we have in uterine catarrh, or the catarrh of the urinary organs. In subduing the intense burning and itching of vaginitis, as well as painful priapism, it is of great value.

In the first the tincture or fluid extract, of the strength of one tablespoonful of either to four tablespoonfuls of water, should be used as an injection three or four times a day. In the other a direct application should be made of the bruised plant in the form of a poultice, if possible changed frequently.

I have recently verified its usefulness in eruptions on the skin. In the winter of 1875 and 1876 there occurred an epidemic rash like roseola, suffusing the face, neck, and often the whole body, and attended by severe burning-itching. A weak lotion of *Grindelia* rapidly removed it. It is specific for any irritable eruption, papular or vesicular. I gave a quantity to a lady patient, going to Florida, who was particularly sensitive to the bites of insects. She reported that it allayed the itching from flea-bites promptly, but did not act as well in mosquito-bites as did *Ledum*.

The following cases are taken from *Chicago Journal and Medical Examiner* :

CASE I. Mrs. F., aged 48, had chronic pneumonia for two years, with considerable purulent expectoration. Physical examination of the chest revealed flatness of the entire left lung. She suffered with considerable dyspnoea, and had used all expectorants, oils, anodynes, tonics, alteratives, and alkalies in existence, with little benefit. She was given one teaspoonful of the fluid extract

of *Grindelia robusta* every two or three hours, or more frequently when her cough was troublesome. Under this treatment the cough was less severe, the expectoration diminished, and her appetite and general health improved, so that she is better now than she has been for a year.

CASE II. Mrs. R. had pneumonia about eighteen months ago. She has flatness of the right lung and partial consolidation at the base of the left remaining. I treated her in the acute stage of pneumonia, and am treating her now.

She had many remedies given her without any benefit. I placed her under the fluid extract of *Grindelia robusta*, giving her a teaspoonful every two hours. She was put on this treatment about three weeks ago, and as long as she has been under it she sleeps better, has less cough and dyspnoea, and is in all respects much better than she has been for nine months.

CASE III. Has cardiac enlargement, with valvular lesions and chronic bronchitis. This patient formerly derived much benefit from the fluid extract of *Gelsemium* and *Belladonna*, but lately could not be so relieved. He was placed under *Grindelia*. In this case, as in the former, the patient was relieved in a few days. His heart trouble of course remained the same, but his bronchitis seemed entirely cured.

The following case was reported by Dr. Scudder :

Dr. Lord, of Dillsborough, Indiana, sent his student to the city with an urgent request that I visit him at once, as he was suffering severely from asthma, and had had no rest for five days ; the physician and the friends thought the case a dangerous one. I was absent from the city, and Dr. Nannah sent down the *Grindelia* for trial. Ten-drop doses were given with decided relief ; from the first a good night's rest, and entire relief in a short time.

Dr. Henry M. Fiske sent the following to the *Eclectic Journal* :

CASE I. Mr. C., aged 35, applied to me for treatment. His right eye was much swollen and protruding, the iris very much contracted and irregular on its edges. There was intense pain through the whole of the ball of the eye. The conjunctiva was very red and its bloodvessels distended. The lids were swollen and tinged. He had been in poor health for some time, but had followed his usual avocation, that of teamster, till yesterday. I applied leeches,

put him on Mercury, and employed the usual cooling lotions to the organ. This course was thoroughly followed for several days with no appreciable benefit. He could not rest without an opiate. The case was anything but a promising one. As he sat in my office complaining of the heat and pain, begging me to do something to give relief, I thought of the Grindelia. I immediately acted on the thought, and soaking some thin cloths in a mixture of one tablespoonful of Steele's extract to four of water, I applied it, with directions to keep it wet. He remained in the office several hours to avoid the glare of the sun. When I returned there was marked amelioration of the symptoms.

CASE II. Mr. G., an old man, 60 years of age, received an injury of the left eye while in the hay-field. After using home remedies for two days, without benefit, he came to me, suffering intensely with all symptoms of iritis as strongly marked as in the other case. Having met with such good success, I commenced immediately with the Grindelia, externally and internally, as before. In twenty hours the pain and inflammation had nearly ceased, and in a few days he resumed his business.

Dr. Scudder reports the following :

G., æt. 60, a Frenchman, has suffered from ulceration of the leg (old sore leg) for twenty years, and in this time it has never been healed, notwithstanding it has been treated by good physicians, and in hospitals.

Condition September 16th : Leg very much swollen, especially about the ankle-joint, where it somewhat resembled elephantiasis ; the color was a purplish-black ; two large ulcers over the tibia, one measuring two the other three inches and a half in longest diameter, and at least a half an inch in depth ; the secretion was abundant and fetid ; he suffered severe pain in the ulcers and leg, and could hardly get about.

I prescribed Grindelia, ten drops three times a day internally, and a local application of ℥ss. to water ℥vij, to be applied as a wet dressing twice a day. He was using a roller, but so imperfectly that it did no good, and yet not so badly as to do harm. To show the amount of local application, I may say that the eight-ounce mixture lasts him a week. There was decided improvement from the first. At the end of a week the leg was free from

pain, the swelling was very much reduced, the color decidedly better, and the ulcers lessened in size one-third. To-day I find one ulcer healed, the other about the size of a half-dollar and healing, and the old gentleman getting around on his feet with comfort.

Taking its early empirical uses in cases of poisoning by *Rhus tox.* as a basis, I have been in the habit of prescribing it frequently in all cases of *itching*, *vesicular* eruptions, and I find it superior to any other remedy as a local application. I give a low dilution internally at the same time.

It occurred to me that it might be of value in that form of *pruritus* which affects the vulva and vagina, whether arising from leucorrhœa, or of a venous origin, or aphthæ. The results arising from its use in this troublesome affection have been very satisfactory. (One drachm of the tincture to a pint of water, as a wash or enema.)

PROVING OF GRINDELIA SQUAMOSA.

The *Grindelia squamosa* is a species belonging to the same genus, and has been proven by Dr. J. H. Bundy, who says: "I commenced at seven o'clock in the evening by taking a teaspoonful of the tincture I had prepared. In half an hour took another, at which time I began to feel a terrible fulness in my head as though I had taken ten or more grains of Quinine. This continued for about ten or fifteen minutes, when I was taken with a pain in my left eye and the right knee-joint, precisely like rheumatism. The pain in my knee did not last more than a half hour, and at this time I took the third teaspoonful (my wife begging me not to take any more, that I would get poisoned). The pain in my eye became the most intense that can be imagined, the pupil becoming dilated largely, and, strange to say, it was two hours before the right eye became affected, but when it did my misery was doubled. At the time the right eye became affected I was taken with an unbearable pain in the entire region of the liver and spleen, and so severe was it that I could not lie still one moment, and the soreness in the region of the pain was like nothing to which I can compare it, except that of acute rheumatism. With a towel tied tight around my head and hot applications over

liver and spleen, declaring I had inflammation of the brain and of the liver and spleen, did I pass the most terrible night of my life, and my wife hoped it would be my last experiment in testing drugs.

“The pain of the eyes was in the eyeballs, and ran directly back to the brain, and to turn them or move them was torturing. In fact the pain produced by the drug, wherever it occurred, was like that of rheumatism—pain with soreness. The conjunctiva was remarkably injected, and the eyes presented the appearance noticed in congestion of the brain. In the morning I sent for my partner. I told him my experiment with the drug, and he gave me camphorated tinct. opii in ʒi doses, and in a few hours I fell asleep. The pain in my eyes, together with the soreness, lasted me three days, which time I was in bed.

“The action of the drug on the nervous system is remarkable. It at first, when given in full doses, acts on the optic nerve, and in a little time it just as surely influences the par vagum, and to that degree it seems to interrupt the respiration. The interruption of respiration in my own case was so great as to prevent sleep, even if the pain had not prevented. *The moment I would fall asleep the respiratory movement would cease*, and it would not be resumed until awakened by the suffocation that resulted from the suspension of respiration.”

Dr. Bundy asserts that it acts curatively in diseases of the spleen—enlargement—in asthma, in nervous erethism, cough, etc.; but, as he in no reported instance used it alone, his pretended clinical experience is worthless for all practical purposes.

I desire to call attention to the symptom I have italicized, and which appears to indicate a paresis of the respiratory nerves, involuntary. This symptom I have often met with in practice, but have never found any remedy for it. The symptom is nowhere mentioned in our repertories, nor have I ever seen it in any pathogenesis. It is similar in nature to that peculiar symptom of Gelseminum, namely: “She feels as if she must move about, or her heart will stop beating,” which indicates a paretic condition of the cardiac motor nerves.

(I am sorry to see that Dr. Allen has omitted this symptom from his *Encyc. of Mat. Med.* That symptom was from a case of

poisoning by Gelsemium, and was of undoubted authority. I published the case in some of our journals.)

The analogues of the Grindelia appear to me to be Stibium, Kali bich., Silphium, Eucalyptus, Amm. mur., and perhaps Phytolacca and Kali hyd.

Further and more systematic provings will, doubtless, evolve symptoms of great value and importance. I believe that in the flora of the Pacific coast we shall find many powerful and unique curative agents.

ARTICLE XII.—The Vaso-Motor Apparatus.*

By I. S. P. LORD, M.D.

THIS book is just what it professes to be, a series of lectures on the physiology and pathology of the vaso-motor apparatus. We have first a brief history of the successive steps by which the incipient idea was developed into its present ample and practical form. Henle, it would seem, first demonstrated the existence of fusiform muscle-elements in the coats of the vessels.

He asserted, that though the first movement of the blood depends upon the contraction of the heart, yet the propulsion and final distribution is the work of the muscle-elements of the coats of the vessels; and he attributed to the nerves a powerful influence over the contractile elements. These were known to form the middle coat, and the next step was to trace nerve-fibres to that coat.

There is some dispute as to who first demonstrated this by rigorous experimentation, though our author with little hesitation awards the honor to Claude Bernard, who also clearly pointed out and defined the *rôle* which the nerves play in the phenomena of the sanguineous circulation.

Dupuy had previously described, as the result of experiments on horses, increase of heat, which he observed on certain parts of

* Leçons sur l'Appareil Vaso-Moteur (physiologie et pathologie), faites à la Faculté de Médecine de Paris. Par A. Vulpian, Professeur à la Faculté de Médecine de Paris, etc. Paris: Germer Baillière, 8vo., 2 vols., 1875.

the head, after extirpation of the guttural ganglions; but he did not seem to comprehend the special significance of the phenomenon. Bernard, on the contrary, not only verified it in a series of experiments on rabbits, but he clearly saw its importance as well as significance. In a second communication to the Academy of Science, in 1852, he asserts that "all parts of the head that have increased heat after section of the cervical grand sympathetic, become the seat of a much more active sanguineous circulation. The arteries appear more full and seem to beat more forcibly." Physiologists saw here a broad field opened to discovery and at once entered.

Brown-Séquard, in repeating Bernard's experiments, found that if "a section of the cervical cord of the great sympathetic did cause a dilatation of the vessels and an increase of heat in the corresponding side of the head, electrization of the upper end of the" [cut] "nerve caused a constriction of the dilated vessels, followed by a cooling of the parts previously heated."

He first proved that the greater activity in the circulation about the head after section of the great sympathetic was due to paralysis of the muscles of the bloodvessels of the corresponding side of the head, and then proved that "the" [increased] "temperature was the direct result of the modifications of the circulation following" [and caused by] "the paralysis of the vessels."

In 1853, both Walter and Bernard, without any knowledge of Séquard's or of each other's discoveries, had made the same experiments with the same results.

This is essentially the history of the discovery of the vaso-motor nerves up to 1853. Before this time nothing was really known of any special provision or nerve apparatus for modifying the circulation of the blood.

Henle and Stilling had, in all probability, only a suspicion of it. Even as late as 1840, Stilling, though assuming that there was a special nerve apparatus, did not demonstrate it.

In 1847 Axman assumed that the great sympathetic furnished the vaso-motor nerves, but failed to demonstrate it. It was an important advance, however, "and it may be said that the vaso-motor nerves may be considered, in a general way, as belonging to the sympathetic system. After a brief anatomical description

of the great sympathetic, which our author says he has verified experimentally," he states that "a careful examination will convince one that the nerve-fibres connecting the ganglions of the fundamental chain of the great sympathetic with the spinal cord are of two kinds. The one running from the spinal cord towards and to the spinal ganglions, and the other from the ganglions to the cord."

"We shall see also," he continues, "that the fibres which put the ganglions of the great sympathetic in relation with the *bulbo-spinal axis*, come from the gray substance of the nerve centre. We shall now seek to determine where is to be found their true origin. It is sufficient at present to show that the bulbo-spinal axis contributes to the make-up of the sympathetic system, and also without doubt to that of the anatomical composition of the vaso-motor apparatus." Then follows a lucid description of the complicated connections of the different ganglions and plexuses with each other and with the spinal cord, summing up with the conclusion that "the vaso-motor apparatus is made up of parts which perform the functions of nerve centres, and the nerve cords which connect them with each other and with the vessels. The nerve centres are the gray substance of the spinal cord, the ganglions of the fundamental cord of the great sympathetic and those which are distributed through the various regions of the body in the track of the vaso-motor nerves.

"There are nerve fillets which put the nerve centres in communication with each other, and also others which spring from the centres and go to the coats of the vessels. These nerves are formed of centrifugal motor and probably also of centripetal excito-motor fibres." We come next to the anatomy of the vessels.

The middle coat of the arteries is muscular, that of the veins much less so. "In general the muscle-fibres have an annular arrangement," *i. e.*, surround the vessel. "Longitudinal occur in many of the veins," while some seem entirely "destitute of muscle-fibres."

Having demonstrated the presence of contractile elements, or muscle-fibres in the coats of the vessels, and also nerve-fibres running to them, the next step is to determine the peculiar arrange-

ment by which the vessels are made to dilate as well as contract through the agency of nerve excitation.

As the muscle-fibres are, as a rule, only annular, or surround the vessel like a ring, it is not easy to conceive by what mechanism it is made to dilate. A multitude of careful and minute dissections demonstrated the presence of immeasurable plexuses, masses of nerve matter, isolated neurine cells, nucleiform swellings, punctiform enlargements, and microscopic specks of nerve matter or substance surrounding the arteries and veins and buried in their coats, or among the muscle-fibres, and connected by fibres of white and ribbon-like neurine matter; fibres of myaline of Remak, etc., etc.

These fibres have been traced into the nuclei of the muscle-cells; and Frankenhamer pretended that he had followed them into the nucleoli of the same nuclei. This has not been verified by any one as yet. Even the capillaries seem to be surrounded by a network of fibrilla, and these anastomoses again penetrate the coats of the vessels. Some anatomists have failed to trace so clearly and minutely the final termination of the vaso-motor nerves, and incline to accept a less complicated arrangement. It is therefore still a mooted question; but that they go to all the bloodvessels, and are accompanied by ganglions, plexuses, and, in short, that they form a miniature duplicate of the great sympathetic, is now universally conceded. So we have at last the contractile element of the bloodvessels, and a composite nerve apparatus to move it.

But this mechanism can only avail to contract or lessen the diameter of the vessel, and when the muscle-fibres cease to act the vessel returns to its normal size. Now bloodvessels certainly do become dilated, else there could be no congestion, nor a blush even.

How can direct or indirect excitation of a nerve cause a dilatation of a vessel? The first step towards a solution of this question was the experiment of Bernard, Brown-Séguard, Waller, and others, by which it was proved that if a motor leading to a vessel was cut, the vessel became dilated. The muscle-fibres deprived of nerve force relaxed, were paralyzed. If then the peripheral end of the cut nerve was electrized, *i. e.*, if the nerve force was

artificially supplied, the vessel immediately contracted, and forced the accumulated blood out again, thus returning to its normal size, and remaining so as long as the force was furnished, to be redilated as soon as it was withdrawn.

Almost any excitation, mechanical, chemical, toxic, or medicinal, may produce the same effect. Every one knows the effect of cold on the vessels. However, after experimenting with a dozen or more chemical agents and vegetable poisons, our author comes to the conclusion that none of them, not even Aconite, has a direct specific effect on the vaso-motors. He believes that Alcohol is the active irritant in all the tinctures that he and others have used. One can hardly avoid asking himself, at least, why a decoction was not used leaving the Alcohol out? The dilatation of the vessel admitted, what dilates it? Not the force of the heart, for we know that the vessels are normally in a state of semi-contraction, the so-called *vascular tone*, *i. e.*, the muscle-fibres are in a certain limited, medium state of contraction, like the muscles of the back and abdomen when we are sitting unsupported. They resist the pressure of the blood driven by the heart and propelled by the contractility of the arteries, and restrain it to its proper limits.

Now the difficulty is to account for the loss of power and consequent relaxation of the constrictor muscle-fibres; in other words, the loss of the *vascular tone*, without a solution of continuity of the nerve cord supplying the vessel; and yet this condition of relaxation must exist before the vessel will allow the accumulation of blood in it. The specific action of the vaso-constrictor (motor) nerves on the annular fibres of the middle coat is sufficient, as is readily seen, to contract the vessel and drive the blood out, leaving the skin pale as when one is frightened or nauseated; but by what process does a purely mental emotion cause a dilatation of the same vessels, as in a blush?

There must be vaso-dilator nerves which directly or indirectly cause a dilatation of the vessels. But how can they act to bring about such a result? After reviewing at considerable length the various theories of Schiff, Brown-Séquard, and others in explanation of the action of the vaso-dilators, our author finally enunciates his own.

"It is admitted," says he, "that the vaso-dilator nerves exercise on the vaso-constrictor a sort of suspensive action, a veritable action of arrest. You will comprehend the significance of this theory when I remind you of the well-known action of the pneumogastric nerves on the heart. You know that if, after these nerves are cut, you electrize their peripheral ends, the movements of the heart are arrested, and that the organ remains during some instants immovable, in a state of diastole, flaccid, and as if paralyzed.

"The excitation of the peripheral end of the pneumogastric nerve appears then to produce, in this case, a modification of the cardiac nervous ganglions, a modification in consequence of which the activity of these nerve centres is suspended, paralyzed during some moments, and this causes the interruption of the normal rhythmic movements of the heart, and this organ continues in a state of inertia up to the moment when the suspensive influence of the pneumogastric nerve ceases to act." (Page 178, vol. i.)

He says that probably the same kind of action occurs in the vessels. He is not quite ready to compare it, as does Bernard, to what is called in physics "*interference of light*;" and limits himself to stating "that certain nerves may have on the vessels an action analogous to that which the pneumogastric nerves exercise on the heart."

In short, the vaso-dilators act through the intermediation of the ganglions, plexuses, nerve-cells, nodules, nerve-masses, and other parts of the intricate ganglionic apparatus, on the constrictors, and paralyze them. This involves loss of vascular tone, and of course relaxation of the muscle-fibres of the middle coat of the vessels, and then they become distended with blood, and we have congestion.

Some objections to this theory have been urged, and it is admitted that its "exactness may not be absolutely demonstrated; but among all that have been passed in review, this is certainly the only one that accords with all the facts and results of the experiments."

Passing the erector and vaso-motor reflex nerves, we come to the great question of the place of origin and the source from which the vaso-motor nerves derive their power, to wit, that central

medullary point from which the whole apparatus is controlled, and which, if destroyed or removed, leaves the whole vascular system powerless.

There had been much research and a multitude of experiments performed to determine where, in the words of our author, "resides the centre of origin and the tonic centre of all the vaso-motor nerves. By this expression, *tonic centre*, I mean, with the authors who have proposed it, the centre which maintains the *vascular tone*; that is to say, that state of medium contraction in which is found, in normal conditions, the middle tunic of all the vessels provided with contractile elements.

"The spinal cord and medulla oblongata are, in all cases, the principal places of origin of the vaso-motor nerves, as well as the principal centres of the reflex action of these nerves. But it may be asked if these parts are the sole sources whence is derived the functional power of the vaso-motor nerves? We have already seen that certain parts of the encephalon also cause vaso-motor actions in certain conditions. We pass this point for the present, but we will ask if the sympathetic ganglions may not also be points of origin for the vaso-motors and centres of reflex action for these same nerves?"

After a careful examination of the facts, and a searching analysis of the experiments made by divers physiologists, followed by an ingenious inquiry as to the influence of the nerves on the function of the pigment-cells, he comes to the conclusion that "the sympathetic nervous ganglions exert on the vaso-motor nerves an influence analogous to that which is devolved from the cerebro-spinal centre. And this influence of the ganglions is independent also up to a certain point."

In a word, there is no *head centre* of excito-motor power, nor common origin of motor or excito-motor nerves. But it seems to have required a vast number of experiments and a flood of argument to disprove the notion of one source of power and one origin. And one unacquainted with the subject can have but a faint idea of the difficulties to be met and overcome before it could be safely asserted that there were many such centres and places of origin. As an example, take an inquiry into the history and origin and function of the depressor nerves.

“Magendie,” says our author, “first noticed that excitation of any sensitive nerve induced an increase of the sanguine tension or pressure, and at the same time an acceleration of the movements of the heart. Bernard repeated the experiment with the same results. But neither Magendie nor Bernard knew the true cause of the phenomena which they observed. They attributed them to modifications of the movements of the heart; the heart, according to them, contracted more frequently and with more energy under the influence of the excitation of a sensitive nerve, or a posterior root of a mixed nerve, or of a mixed nerve itself, and, as a consequence, the intra-arterial pressure would be augmented in a more or less considerable way. Later, De Bezold made a great number of experiments to elucidate this question. In consequence of his researches he believed himself authorized to admit that there is in the spinal cord itself an excitory centre of cardiac activity. It was thought at that time that only one portion of the nerve centres had an influence on the heart, to wit, the medulla oblongata. This acted, as was known, on the heart through the intermedium of the pneumogastric nerves.

“Scarcely any action on the heart was attributed to the spinal cord, though Legallois had, by means of well-conducted experiments, demonstrated the reality of this action. On animals curarized De Bezold had shown that electrization of the central end of the pneumogastric nerves lowered the intra-arterial pressure. On the other hand he had seen also that electrization of the medulla oblongata ‘had a contrary effect. It caused a considerable increase of this same pressure, which was still more increased when the pneumogastric nerves were both cut. This made it probable that the spinal cord might act on the heart.’ De Bezold, in order to verify this presumption, severed the spinal cord behind the medulla oblongata, and saw the arterial tension immediately and very notably reduced. He then electrized the upper end of the cord behind the section, and the tension was at once elevated, and meantime the beats of the heart accelerated. The conclusion drawn by De Bezold from this experiment is that the spinal cord is by itself a centre of excitation for the heart, and that it gives birth to nerves having an influence on the heart. If electrization of the upper ends of the cut pneumogastric nerves

acts on the sanguine tension and augments it, it results, according to him, that this electrization should cause a reflex excitation of the nerves going from the spinal cord to the heart. The movements of the heart also should be more energetic and more frequent, and the arterial tension augmented by this mechanism. If the tension diminishes when one cuts the cord across behind the medulla oblongata, it would happen because the section paralyzed the nerves emanating from the cord and running to the heart.

“Thus matters stood when, shortly after, Ludwig and Thiry undertook experiments to test the results obtained by De Bezoled. They found that the effects described by him were exact, but they showed that the mechanism by which they were produced were wholly different from what he had pointed out. They discovered that the results published by De Bezoled were due, *not to an action on the heart, but on all the vessels of the body, and on those of the abdomen in particular.*”

To determine if the spine did have any direct action on the heart they first destroyed by the galvanic cautery all the nerves running from the spine to the heart, thus cutting off all direct communication between them and making it impossible. They then electrized the spinal cord with precisely the same results as before the isolation of the heart. The arterial tension was increased and the heart beat more frequently. These results could no longer be referred to the heart, and some other explanation must be resorted to.

On the whole they were led to think that the increased tension of the arteries was due to a contraction of the greatest part of the smaller arteries of the body. In fact a compression of the aorta above its bifurcation is followed by the same results as was electrization of the spinal cord in De Bezoled's experiments, and the same effect should follow a general contraction of all the smaller arteries. This contraction may be effected through the agency of the vaso-constrictor nerves excited by galvanization of the spinal cord.

“O. Ludwig and E. Cyon found soon after new facts full of interest, and throwing a vivid light on the relations which exist between the heart and the vessels. They ascertained the existence, on each side of the neck, of a nerve which leaves the in-

ternal surface of the heart, mounts up towards the pneumogastric, to which it is joined, and consequently passes on with that nerve to the medulla oblongata.

“It is a small nerve and has been noticed a long time, but no one had tried to determine its destination or function. It is found, like the pneumogastric and cervical cord of the sympathetic, joined to the carotid and generally in front of it. It is a little smaller than the cervical sympathetic cord, and has often been mistaken for it by physiologists who desired to repeat the experiment of Bernard. It is this same confusion which has been the cause in certain cases of negative results sometimes observed following this experiment.

“Mm. Ludwig and Cyon, in rabbits curarized and subjected to artificial respiration, put the carotid of one side *en rapport* with a hæmodynamometer; then, after having cut the nerve in question on the other side towards the middle of the neck, they excited, by the aid of induced currents, the peripheral end or that part which is connected with the heart. It produced no effect. Electrization of the upper end, that is to say, the end which is united with the pneumogastric nerve at the upper part of the neck, produced immediately, on the contrary, a considerable abasement of the intra-arterial pressure”—which disappeared when the current was withdrawn, and was reproduced as often as the current was reapplied. At the same time there appeared an enfeebling of the pulse and slowing of the heart’s action. And they were led to conclude that this nerve is formed of centripetal fibres going from the heart towards the medulla oblongata. It seems even to be endowed with true sensitiveness.

Pushing their investigations farther they discovered that this so very considerable abasement of the arterial tension was due to a dilatation of all the smaller arteries of the body, and in consequence all the small vessels. The arteries and vessels thus relaxed offered less resistance to the circulating blood than when in a normal state, and hence the lowering of the tension. They also saw that the vessels of the abdomen play the most important rôle in this relative depletion of the heart and larger arteries. “The vessels of the abdomen are, in fact, very numerous and large, and not well supported, and it is easy to comprehend” how they might

drain away a considerable quantity of the blood contained in the totality of the vascular system. They determined the fact by actual observation. They assured themselves by direct inspection that, under the influence of electrization of the upper ends of the nerves they were studying, a very great dilatation of the abdominal vessels was produced.

They called them *nerfs dépresseurs*, depressor nerves, and this name they still retain. "It is through the agency of the spinal cord and the splanchnic nerves that excitation of the depressor nerves acts on the vessels within the abdomen." We have not space to pursue the subject through experiments made on the splanchnic nerves, but we come at last to this, that the depressor nerves modify the heart's action only through the reflex action of the pneumogastrics; for when these are cut there is no change in the movements of the heart on faradizing the depressors, and if the splanchnic nerves are also divided at the same time there is no alteration of the arterial tension. The depressor nerves receive anastomoses at the upper part of the neck, and one of their roots comes from the superior laryngeal nerve. At the lower part of the neck it receives the first and second fillets from the inferior cervical ganglion. The heart is besides in relation with the medullary centre by the intermediation of other nerves, discovered by the brothers Cyon, to which they have given the name of *accelerator nerves of the heart*. "I have stated," says our author, "that under the influence of excitation of the spinal cord there were two distinct effects: 1st, of depression of sanguine tension; and 2d, of acceleration of the movements of the heart. It is especially by putting in activity the nerves discovered by the Cyons that this second phenomenon is produced. The accelerator nerve on each side springs from the third fillet of the corresponding inferior cervical ganglion and terminates in the heart. When one excites the cardiac end an acceleration of the movements of the heart is caused, while excitation of the medullary end is without action."

"The spinal cord," in short, "appears to act directly on the heart only through the agency of the accelerator nerves. It acts indirectly on this organ by the intermediation of the vascular nerves, vaso-constrictors or vaso-dilators, in augmenting or dimin-

ishing the intra-arterial tension, and in modifying also the quantity of blood which comes to the heart, and the resistance which the small vessels offer to the ventricular sanguine waves.”

Thus we have been led, step by step, from the simple conception of a common nerve action on the heart, controlling its motions in some unknown and mysterious way, to the knowledge of a complex, efficient, and beautiful automatic machinery, every act of which can be foreseen and explained, and every motion accounted for: a mechanism so ingenious that it can increase the frequency of the beats of the heart, and at the same time lessen the tension of the arteries, and this by the application of a common excitant at a single point. A study of the vaso-motor apparatus, as here developed, opens up a wide field to the pathologist, and a rich one to the therapist, and must lead to the most important practical results. But this work must be read to be at all appreciated, as it is almost impossible to condense or abridge it. If one undertakes to condense, it is of itself a condensation of language; if to abridge, he holds an abridgment in his hand; if to give a synopsis, he will find that he is already dealing with a synopsis.

(To be continued.)

ARTICLE XIII.—Two Cases of Concussion of the Spine and Brain from Railroad Accidents.

BY DR. M. BERNHARDT.

1. W. S., a strong and hale man, conductor, sat in the baggage car when a collision occurred. The baggage car was demolished. How long he remained insensible he does not know, but recollects that, supported by some friends, he went to a creek to clean a superficial wound on his head. At the depot his wound was bandaged, and then he walked home, where he remained three weeks in bed on account of this wound and of pains in the neck. During that time he vomited several times without cause, complained of loss of strength, of weakness of vision and of the extremities; only in the first week diplopia was present. He has no fever,

sometimes headache, although percussion of the skull shows no sensitive spots. His memory is weakened, and he is now very irritable. The rolling of carriages and the noise of the street affect him. Sleep good, appetite normal, thirst somewhat increased. Vertigo in stooping, in looking upwards or sideways. Pupils normal and reacting well to light. Cannot bear strong light; can move his eyes in all directions; no squinting. Ophthalmoscopic examination shows no change. No anomaly in hearing or in any other cerebral nerve, nor in the facial, trigeminus, or hypoglossus. Pressure on the proc. spinosi only sensitive in the lower cervical part; subjective a sensation of tension in the small of the back; he can only raise up or sit down with difficulty. Motion in the upper extremities somewhat diminished, with trembling of the extended hands and fingers. He walks slowly, but without guide, and is able to stand a little while on one foot. The active motory power is more diminished on the left than on the right side, although he can make any motion for a little time. Sensibility undiminished, he located distinctly the slightest touch. Micturition free, neither enuresis nor any tenesmus, but he cannot hold his fæces, which pass involuntarily, if not immediately attended to, the consistency of the stool being normal. No albumen or sugar in the urine, nor any impotence.

2. A hale and hearty conductor, of 35 years, made up his accounts in his car, which was standing, when another car ran heavily against it. He fell down unconsciously, and when he came to he found himself lying on his knees, the head bent forward, and had vomited. Though suffering severe pains in his left shoulder, he alighted alone, went to the director to announce himself sick, and drove home, where the surgeon found the left clavicle fractured. For the *first six days* he felt pretty well, when he began to vomit without cause, vertigo and syncope appeared, he frequently turned pale, fell down and remained unconscious for some time. He complained of severe pains in his head and small of the back, and became very irritable and dissatisfied. His memory failed him so that he was unable to write a letter. After each syncope he talked like a child, and his voice became extremely weak. Long words he cannot pronounce at all, and he has lost all energy. He feels as if a weight compresses his brain, although

percussion of the brain is nowhere painful. On the street he walks as if he were intoxicated. Vision and hearing are normal, only some surring in the ears like the ringing of bells. Normal protrusion of the tongue. He complains of a peculiar malaise in the precordial region with anguish and nausea, sometimes with vomiting. Vertigo and syncope continue. The lateral motion of the head is free, but painful forwards and backwards, and he locates the pain deep inside, where deep pressure aggravates it, but not the superficial touch; but downwards from the scapulæ to the centre of the os sacrum, a mere passing the hand over the skin is extremely painful, whereas an energetic pressure is well borne. The upper extremities can be moved in any direction, but their motor power is diminished, the extended hands tremble, he could move his lower extremities with more ease if it were not for the pains caused in the dorsal and lumbar skin, the right extremity feels benumbed, and he is very careful of himself in rising up or sitting down. He leans over when standing, supporting his back with his left hand, and he could not walk without such a support, as thus he keeps his clothing from rubbing against the hyperæsthetic skin. Riding in a carriage is impossible on account of the shaking. He is afraid to walk out alone, as he is very liable to be attacked on the street with weakness, vertigo, and fainting. Stool retarded, micturition normal, appetite and sleep good.

Bernhardt then remarks that such cases teach us, how from apparently light beginnings a state may develop itself, leading mind and body of the patient gradually to a chronic diseased state. Many a time such poor patients may be thought of simulating sickness, for there were no bones broken during the accident, no immediate paralysis, the patients were able to walk home even long distances, and did not complain much for a whole week, and perhaps all these subjective complaints are only made to get big damages from the railroad. But Erichsen, in his masterly essay, *On Railroad Injuries*, considers already this immunity during the first days of the accident as characteristic of this morbid process, consisting in a *general falling off of strength, in a general prostration of all functions emanating from the spine and brain*. The former steadiness of mind is gone. The sensory organs act

normally, but they soon tire, vision becomes languid, the ear cannot bear the usual noises, vertigo and fainting are the sequels of every somewhat unusual impression, liquors are badly digested; the hands tremble, the feet refuse to act, in fact we may compare such an existence as blasted through and through. Great precaution is therefore necessary in making out the prognosis. Treatment consists at first in psychical as well as somatic rest, in keeping off every noxa, in ameliorating the pain by abstraction of blood or narcotica, and after awhile by a strengthening diet, with country air, gymnastic exercises, electricity, and hydropathic treatment.—*Berl. Klin. Wechschrft*, 20, 1876.

Erichsen (*On Railway and other Injuries of the Nervous System*, London, 1866) thus describes the lingering development of the sequels of such accidents: "The patient usually has no idea of a severe injury. He felt the concussion, perhaps some vertigo, but is soon convinced that no bone is broken, considers himself lucky, and perhaps is even able to assist some of his companions, and continues his journey home. Arrived there after a few days the scene changes; his mind is not at ease, he becomes irritable, weeps easily, sleeps not or becomes frightened in his sleep. Soon he complains of a bruised sensation, especially in the muscles of the neck and of the loins, with a sensation of stiffness and tension down to the toes. Being unable to work or to move, he goes to his bed and seeks medical advice. From this time forward positive symptoms develop themselves, hinting to a slow inflammation of the spinal cord and its membranes. He complains of pains in the back, aggravated by pressure and motion, especially by turning, with stiffness of the spinal column and the sensation of a hoop becoming tightened. Grave cases are followed by palsy, by spasm, or even trismus and death. Where the inflammation becomes chronic, permanent changes in the structure of the spinal cord take place, frequently with incurable paralysis, especially of the lower extremities. Sometimes the process extends to the brain with deep affection of the general health. Death may set in at any time, sometimes suddenly with paralytic manifestations, and autopsies remain negative. In the case of Gore, described by Clarke, chronic myelitis with subsequent atrophy was found, and

in the case of Dr. Maty sclerosis and hypertrophy of the cervical part."

Leyden (*Rückenmark's Krankheiten*, ii, 101) remarks that those cases where the immediate consequences are slight demand great caution, as they frequently cause slow inflammatory processes with grave consequences. No case of spinal concussion must be considered as trivial, and even apparently unimportant symptoms deserve close care and attention. Patients frequently cannot understand this overanxiety of their physician. During the first days after the accident perfect quietude is advisable on account of the mental excitement, and even after the shock has passed off mental and bodily rest is necessary, even in light cases, as it is impossible to determine beforehand whether grave consequences may not follow. Grave cases must be treated as hæmorrhage and acute myelitis; ice-bladder, abstraction of blood, mercurialia, micturition and defecation must be taken care of; finally tonica, and for the residua gymnastics, electricity, and hydropathy.

Professor Erb (*Ziemssen*, xi, 2), in the chapter "*Commotio Medullæ Spinalis*," leads our attention to the fact that energetic traumatic influences may cause *grave disturbances in the functions of the medulla spinalis, although no simultaneous anatomical changes can be shown*. Unimportant changes, slight capillary extravasations, may be found, but they cannot be considered the essence of the disease, and only in chronic cases meningitis and myelitis may arise, or also different forms of gray degeneration and sclerosis. He believes that in all commotions we have to deal, not so much with coarse anatomical changes, but rather with *molecular alterations in the fine nervous elements*, which rather cause immediately their total functional paralysis or they originate nutritive disturbances, finally leading to degenerative inflammations. Erb sketches well four different degrees of spinal commotion, from whatever accidental cause it may have been produced.

1. *Most severe and diffuse symptoms at the very moment of the accident, shortly followed by death. A most severe shock. Perfect paralysis of all extremities with total anæsthesia, great prostration, though consciousness may remain undisturbed, with involuntary discharges; pulse filiform, weak and slow; skin cool, pale or slightly cyanotic; respiration disturbed, dyspnœa, etc. Such fatal disturb-*

ances are caused by the high-graded molecular commotion of the substance of the spinal medulla, preventing their intimate nutrition.

2. *Grave symptoms at the moment of the injury; recovery in a short time; light shock.* Immediately after the injury the conscious patient complains of severe diffuse pains in the lower extremities or over the whole body; the extremities may be more or less paralyzed, and in some cases anæsthetic; the bladder is not always paralyzed. Galvanic treatment acts well in such cases.

3. *Severe symptoms from the beginning, followed by severe suffering for several years, finally recovery.* Shortly after the accidents the patients show great debility, quickly increasing to paralysis, sometimes of all extremities. Diffuse pains along the spine, in the neck, and small of the back; paræsthesia; retention of urine, slow pulse. In some cases the initial unconsciousness and the vomiting lent to a commotion of the brain also a heightened mental irritability. In its further course amelioration sets in slowly and gradually; great weakness of the extremities, a light degree of muscular atrophy, great sensitiveness and painfulness remain for a long time. The extremities are cool and livid, the spinal column painful to pressure and very sensitive; the patient has, as it were, learned to walk again. It takes years till the patient recovers a state approximating former health, but they always remain irritable, sensitive, and liable to noxæ.

4. *Unimportant symptoms at first, followed after a shorter or longer interval by progressive grave spinal suffering, prognosis doubtful.* We find such cases especially after railroad accidents. The patients have the sensation of a severe concussion, a momentary weakness, perhaps semiconsciousness, but they rapidly recover themselves, and are able to continue their journey. After several days, but sometimes only after weeks and months, threatening manifestations appear, perhaps for awhile preceded by slight, and thus unobserved, symptoms. There is general malaise, sleeplessness, slight psychological alteration, an incapacity to follow their usual occupation, finally steadily increasing pains in the back and extremities. Henceforward the weakness of the lower extremities increases; walking becomes insecure, stiff, dragging; they do not keep the legs together, they do not feel safe when standing, sometimes disturbances of co-ordination. Stiffness of the

back, which is painful especially during motion, some spinal processes very painful to pressure. Sensation of a cord, paræsthesia and anæsthesia of different degrees and of changing localities, not rarely also hyperæsthesia. Weakness of the bladder, imperfect or total impotence. General nutrition fails, pale sallow skin; atrophy of muscles, cold and blue extremities. Interrupted sleep, irritability and fretfulness, weakness of intellect, of memory, and of desire for work; in fact, a change of the whole character with the symptoms of the slow meningo-myelitis, which may also affect the cerebral function. Periods of apparent amelioration alternate with progressive aggravations, and a favorable issue is the exception; still, cases are on record where, even late, the disease remained *in statu quo* without advancing any further. The treatment of the shock is too well known. Erb speaks against general abstraction of blood, and thinks a local one might suffice during the reactive stage; cold, bloody, or dry cupping, derivantia to the skin and intestinal canal, *Secale corn.*, *Kali jod.*, etc. During convalescence perfect rest of mind and body, abstinence from all emotions and bodily motions, like riding, etc.; careful sponging with cold water, moderate application of the galvanic current (ascending stabl through the spinal column), or by periphèric faradization; tonica and the use of carbonic ferruginous springs. Patience and endurance will do a great deal in such desperate cases.

It really seems mere obstinacy that the regular school passes unnoticed that internal medication, which to us has been and is such a glorious blessing. Why of old our *Arnica* has ever been extolled by the name of "Fallkraut," the plant for accident from falling. From their own authorities we can prove that it must be the best remedy for traumatic shock, for according to Joerg (*Materialien*, p. 182) it increases the frequency of the pulse and the temperature of the skin; it hastens respiration, facilitates the urinary and cutaneous secretion; and in his provings he found pain in the back between the scapulæ, pressing headache, fulness of the head, vertigo, restless sleep, full of dreams, and general malaise and debility. Kœhler (*Mat. Med.*, p. 418) considers *Arnica* obsolete in *commotio cerebri* and oppression of the brain after apoplexy, inasmuch as *Arnica* causes cerebral hyperæmia, and

fails to see its applicability to palsy. And in looking over the symptomatology of Arnica, as given by Allen (*Encyclopedia*, i, 476), we were astonished to find such a perfect correspondence between commotio cerebri and spinalis and the symptoms of Arnica. Thus we read: Weeping; hypochondriac anxiety; peevishness; irritable, sensitive mood; confusion of the head; vertigo, especially during motion; eyes sunken, glassy, with dilated, insensible pupils; sensibly diminished hearing; ringing and humming in the ears; nausea, and disposition to vomit; retching unto vomiting; painful pressure transversely across over the pit of the stomach, with dyspnoea; involuntary stools during sleep; retention of urine, or copious discharge of a watery urine; pain in the region of the heart, as if the heart were squeezed together, or as if it got a shock; pulse slow and small; pulse feeble, hurried, and irregular; a peculiar painful sensation extending down the back, as comes sometimes from continued stooping in hard work; the spine is painful, as if it were not able to carry the body; pain as from bruises in the back; pain in the small of the back, as if something had been torn inside; pain in the sacrum, as after a violent blow or fall; excessive heaviness of all the limbs; pain in all the limbs, as if they had been bruised, both when at rest or in motion; sense as of crawling in the hands and feet; pain in the thighs when walking, as from a blow or contusion; the knee-joints have no firmness, they totter when standing; lassitude and sluggishness of the whole body, the legs are scarcely able to stand; general sinking of strength; faintness; painful and excessive sensitiveness of the whole body; sleeplessness, with anguish, as if from heat; sleep restless and diminished, etc.

Gilchrist (*Surgical Diseases*) recommends for traumatic shock Arnica, Opium, and Camphora; and for myelitis following concussion of the spine, Arnica or Conium. We would prefer, according to the symptoms given by this author (p. 145), *Rhus tox.*: Numbness and stiffness of the limbs; great debility, and sudden paroxysms of fainting; sensation as if the pit of the stomach were swollen, impeding respiration; violent throbbing below the pit of the stomach; tightness of breath, and contractive sensation in the chest; sticking in the region of the heart; tingling pains in the back; pain in the small of the back; creeping in and coldness of

the back; pain in the small of the back, as if it were bruised; pain as if sprained in the back and shoulders.

Whether *Hypericum perforatum*, considered by many of our physicians as the Arnica of the nerves, will do something in commotio spinalis, has been clinically not yet demonstrated. Its pathogenesis is still very deficient, and the drug needs reproof. Among its symptoms may be found great languor on rising, with violent thirst; feeling of weakness, and trembling of all the limbs; lameness; sensitiveness to cold; indisposition to mental and bodily labor; lowness of spirits, melancholy, disposition to weep; weakness of memory; violent vertigo, with loathing; great heaviness of the head; sensation as if the brain were compressed; confused sensation in the head, accompanied by buzzing, dull humming; loathing, with inclination to vomit, and great languor; laming-aching pain in the small of the back; the feet feel pithy, as pricked with needles; uneasy sleep, with frightful dreams; starting and oppressive anxiety.

Lippe recommends *Conium* for bruises and shocks in the spine, but according to Hughes this drug paralyzes the spinal cord from below upwards, killing at last by gradual asphyxia; whereas in our traumatic cases we usually find the parts below the injury paralyzed and prone to molecular disintegration. On the contrary, again, Hempel thinks that its primary action is exhaustion of the nervous energy, leading finally to paralysis and atrophy of the muscles, giving us thus a simile to the pathological state as produced by concussion of the spinal cord. Leaving pathology aside, let us take our clue from Hahnemann or Allen. We read in the *Chronic Diseases*, ii, 156, that Noack and Trinks found it valuable for the residua from traumatic injuries, in consequence of which the cellular tissue had become compressed and glands indurated, a sensation of numbness accompanying these symptoms (sclerosis?), and among its symptoms we read: Dejection of spirits and melancholia; want of disposition to work; forgetfulness, and weakness of the head; vertigo when looking round, as if the patient would *fall to one side*; heaviness of the head; chronic headaches; the eyes are dazzled by the light of day; humming, buzzing, and tingling in the ears; faintishness in the whole body, especially the lower limbs; coldness of the feet and hands; unre-

freshing sleep; general feeling as of being bruised by blows; failing, nervous weakness; weakness and weight of the lower limbs, especially the knees, as if they would bend; standing is very troublesome; loss of all his strength, until death ensues. We must not neglect to mention that Kafka (*Hom. Therapie*, ii, 163) leads our attention to the fact that in chronic meningitis spinalis (hydrorrhachis exquisita of some pathologists) the paralysis increases from below upwards (according as the quantity of the fluid increases), and that this paralysis is always preceded by painful sensations in the extremities. As Conium gives us this paralysis upwards, and as it has been among ancient physicians (Kœhler, *M. M.*, 1282) known as a remedy increasing all secretions (and thus perhaps an absorbens), it may certainly be considered a remedy worth thinking of in these tedious sequelæ of the railway spine, as well as in those of other concussions of the spinal cord.

Jahr (*Clinical Guide*, 504) gives for concussion of the brain and spinal marrow the first place to *Cicuta virosa*, the very antipode of Conium, as the former causes tetanus as manifestly as does Strychnine, whereas the latter causes only slight occasional twitches of the limbs. When *Cicuta* is ever indicated in commotion of the brain and spine, it can only be in that stage, when, the shock having passed off under the action of Camphor, Aconite, or by itself, reaction with hyperæmia of the brain and medulla has set in, threatening convulsions, a state which may happen exceptionally; but certainly this drug does not deserve this priority given to it by Jahr. Among its symptoms (*M. M. Pura*, ii, 78) we read: Intoxication; staggering; vertigo, as if he would fall *forwards*; head feels stupefied and heavy; contraction of the pupils, followed by considerable dilatation; roaring and tingling in the ears; a shock in the dorsal vertebræ; frequent involuntary jerking and twitching in the arms and fingers, the lower limbs, and the head; crampy stiffness of the whole body, with coldness of the same. We certainly would make an interrogation behind *Cicuta*, for we cannot see much similarity between this remedy and the diseased state in question.

Bæhr and Kafka in their respective works praise *Mercur* highly for myelitis, and here they are in perfect accord with the English allopathic school, whose shibboleth mercurials still remain. Bæhr

writes: We find in the action of Mercury all phases of the progressing paraplegia of the extremities, of the bladder and anus, with the tendency to twitching and shocks; severe spinal pains, aggravated by pressure; restlessness and sleeplessness; anæsthesia of the skin; and Kafka considers the paraplegic symptoms as a proof that exudation has already taken place in the spinal canal, for which Merc. sol. or Kali hydrojod. may be indicated. It appears to me that the chronic myelitis from commotion is not acute enough to yield to mercurials; we rather lean to the views of Prof. Erb, who sees in such cases a molecular degeneration of the nerve-cells, which might more probably find its simile in Arnica, Rhus, or perhaps in Plumbum.

Secale cornutum is put down by Bæhr as a remedy when the function of the medulla is affected, for the smut-rye gives us the convulsive twitchings and shocks; the painful contractures; the tetanic manifestations; perfect paralysis, with ever increased reflex irritability; the most excruciating spinal pains, especially in the sacrum; most perfect anæsthesia, and a tendency to gangrene, represented as decubitus in myelitis. He finds it more frequently indicated in chronic than in acute myelitis, and shares here the opinion of the old school (Kœhler, *M. M.*, 205), who find its contracting power of the capillaries an indication for hyperæmia cerebri and spinalis, and for the palsies arising therefrom. At any rate an interrogation may be well put behind it, till clinical experience will elucidate its particular use in this disease.

There is hardly a remedy in the whole *Materia Medica* which causes more profound lesions in the nervous centres than *Plumbum*; in fact, just as we see it in the sequelæ of this railway spine, so also the slow poisoning of lead makes a wreck of the patient who comes under the baneful influence of this metal. Against its use may be brought forward that saturnine palsy affects more the upper than the lower extremities, although the latter are not entirely exempted, but then we have here not only anæsthesia but sometimes a hyperæsthesia, and experiments on animals show that it produces sclerosis as well as softening. Hahnemann already recommended it for chronic spinal meningitis when the paralyzed parts soon fall away in flesh, and the limbs are painfully contracted; or where we meet complete palsy, with excessive waste

of tissue; and found it especially adapted to disease where the symptoms arise from disease of the spinal cord. Among its symptoms we read: Lowness of spirits and indifference; loss of memory; sleeplessness, or sleep disturbed by dreams or hallucinations; ringing in the ears; weakness of sight; diplopia; vertigo; sunken features; weakness of the sexual powers; oppression of the chest; incomplete, difficult, noisy, moaning respiration; constriction in the præcordial region; paralysis of the upper and lower limbs; pulse small, soft, easily compressible; deepseated anæsthesia of the limbs and trunk; emaciation of the paralyzed parts.

Gymnastics, electricity, the use of hydrotherapy, as well as of mineral springs, are the common property of all schools, and we would consider any physician guilty of wilful neglect who fails to make proper use of these adjuvantia. We tried to prove that our armamentarium holds out a fair promise, and with our Arnica, Hypericum, Rhus during the early stages, or with Rhus, Plumbum, Conium at a later period, we may perhaps still succeed in restoring to a suffering brother a fair share of health.

ARTICLE XIV.—Report on the Climate of California and its Sanitary Conditions,

WITH METEOROLOGICAL OBSERVATIONS.*

BY FREDERICK HILLER, M.D., SAN FRANCISCO, CAL.

CALIFORNIA being to a great extent a new world, having its own peculiar combinations, character, and colors, it is impossible to convey to the reader a correct idea of its physical characteristics by a mere description without first glancing at its remarkable geographical and topographical conditions.

The most striking feature in the physical geography of California is the existence of two great ranges of mountains, running northwest and southeast, and generally parallel, known as the Sierra Nevada and the Coast Range. The latter shoots off from

* This paper was a part of the report of the Committee on Climatology of the American Institute of Homœopathy, made to the Institute at its twenty-seventh session.—EDITOR.

the former on the south ; the snow-capped mount, San Bernardino, over eight thousand feet high, being the connecting link. These two ranges of mountains are again united near the northern boundary of the State by a transverse range, in which is situated Mount Shasta, 14,442 feet high.

The Sierra Nevada is the most extensive, being a lofty and rugged range, its summits generally above the region of perpetual snow, and having but few, and those very elevated, passes.

The Coast Range of mountains does not extend more than forty miles inland in most parts of its entire length, which is about seven hundred miles, from latitude $32^{\circ} 51'$ to latitude 42° north.

The Sierra Nevada traverses the State along its eastern border, and the Coast Range, as its name implies, along the western border, near the seacoast. From the fact that these two great ranges of mountains, after separating as above stated, diverge from both points of contact with a tolerably even curve, until the divergence reaches its greatest limit, the reader may form some idea of the shape of the magnificent valleys they inclose, of which the Sacramento and San Joaquin, so named after the rivers which drain them, are the largest, being about three hundred and fifty miles long, and from forty to eighty miles wide at the point of greatest divergence, forming the inner or central basin of California.

Along the great rivers the valleys are low and level and extremely fertile, rising on the east into undulating slopes and low hills, which are gradually broken up by well-wooded spurs from the Sierras.

It is much more difficult to convey to the reader a correct idea of the form and extent of the mountain regions, as each division embraces many separate groups of mountain chains of vast extent, differing in their geological and topographical relations; presenting either a rare beauty or a rugged wilderness unsurpassed by any other mountains in the world, for here the mighty forces of the volcano and the earthquake, of the crushing, slow-moving, ponderous glacier, and of the swift-destroying flood, have each left evident traces of their power.

The highest peaks of the Sierra Nevada, besides those already named, are Mount Whitney, 15,086 feet; Mount Tyndall, 14,386;

Mount Kaweah, 14,000 feet; Mount Dana, 13,227 feet; Mount Lyell, 13,217 feet; Mount St. Joseph, 10,000 feet; Butte Mountain, 9000 feet; Table Mountain, 8000 feet; and Saddle Mountain, 7000 feet.

The Sierras are covered, almost to their summits, with luxuriant forests. The lower ranges, including the hills, are covered with oak, succeeded, as we mount higher, by forests of gigantic pine, spruce, cedar, and cypress.

The Coast Range averages from 2000 to 4000 feet in height, and is divided in its length by a number of long and narrow valleys; some of these are as much as sixty miles long, and from ten to twenty wide, with fertile soil, and an equable and genial climate.

The Sacramento and San Joaquin are the most important rivers in California, forming the main commercial arteries of the State. The former has its headwaters in the neighborhood of Mount Shasta, whence running south it receives its supply from numerous tributaries fed by the melting snows of the Sierra Nevada. The latter is formed by several large affluents in the Sierras, flows westerly till reaching the middle of its valley, where, after receiving the waters of the Tulare slough, it bends to the northwest and pursues an even course until it unites with the Sacramento in Luisun Bay; and these immense volumes of water, accumulated in the great central basin, are poured through the narrow channel of the Straits of Carquinez into the Bay of San Francisco, whence, increased by the streams draining the Coast Range, they pass through the Golden Gate, the only outlet into the Pacific Ocean.

California, geologically speaking, is a volcanic country. Large areas now dry were formerly covered by lakes or inland seas, which, probably, had their greatest development during the existence of gigantic glaciers, the marks of which are so abundant throughout the high Sierras. Mount Shasta itself is an enormous volcanic mass, with steep slopes and sharp summits, 6000 feet of which are covered with perpetual snow. The glaciers which once descended the slopes towards the headwaters of its streams produced such stupendous denudations that in some places the cañons are from 3000 to 4000 feet deep, forming gigantic cataracts

and cascades, which give to the country a peculiarly wild and romantic appearance.

Whilst California can boast of being endowed with the most gorgeous landscapes and magnificently beautiful scenery, with an equable climate and luxuriant soil, it yet possesses one of the gloomiest and most desolate spots on the face of the earth,

THE DEATH VALLEY.

This valley owes its name to the melancholy fate of several parties of immigrants, who perished in the attempt to cross, between the years 1849 and 1852. It is situated in the southeast of the State.

(My notes are from the record of the surveys of Williamson in 1861, the observations made by the U. S. Boundary Expedition in 1868, and the surveys and explorations made last summer by J. E. James and R. E. Stretch, civil engineers.)

The valley is a portion of the Colorado desert, which comprises an area 300 miles long by 150 wide.

Death Valley itself is 40 miles long and 15 wide. The whole of this vast desert is sunk from 300 to 400 feet below the level of the ocean, a greater depression than that of the Caspian Sea, and nearly as great as that of the Dead Sea, the sink of the Jordan, in Palestine. All life is extinct in this valley, its sides are steep and barren, a few mesquite bushes alone growing among the sands at its head. The whole surface of the valley, except a marshy portion in the centre, is covered with sand and gravel, scarred in all directions by deep grooves, caused by freshets, heavy storms, and the bursting of waterspouts. The heat in this valley is fearful during the summer months, the thermometer ranging from 90° to 140°. Sand-storms and desiccating hot winds blow through it in both directions; these grow during the summer into perfect tornadoes, which fill the air with sand and gravel in clouds as black as coal-smoke; when there is no breeze, the air becomes so dense that respiration is painful and difficult. A vast volume of heated air, without any appreciable humidity, generates in this long desert as in a great furnace.

The moisture of the rain-bearing clouds which are blown in a northerly direction from the Gulf of California during the sum-

mer months, is, therefore, dissipated as soon as they touch the borders of this superheated region, and is prevented from reaching the dry but otherwise fertile plains beyond.

The shells found on the surface of this desert prove that it was at one time the bed of a sea, and at a subsequent period the bed of a fresh-water lake. The shore-lines of both sea and lake can yet be seen and recognized in many places, and Mr. Stretch expresses the opinion that the Aztec civilization of the adjacent region of Arizona (of which there are so many traces) came to an end, in consequence of the climatic changes caused by the evaporation of the vast lakes of Southern California, after the Colorado River had cut down its bed in the great cañon so deep that its course was diverted, at Collville, into a southerly direction.

About 70 miles west of this dreadful desert, we find clustered a number of the highest peaks of the Sierra Nevada, many of which rise to a height of from 12,000 to 15,000 feet.

These facts will afford some idea of the wild confusion of mountains, cañons, and depressions that mark the topography of this portion of the State.

CLIMATOLOGY.

Considered as a whole it may be said that California is favored with an all too varied climate; it is in fact a heterogeneous mixture of all climates, from the arctic to the tropical.

CLIMATE OF THE COAST RANGE.

The Coast Range enjoys the most evenly temperate climate, produced by the low temperature of the Pacific Ocean, the water of which along the coast stands at from 52° to 54° all the year round. The evenness of the ocean temperature is owing to a steady current from the north, accompanied by winds known as the trade-winds, which blow in the same direction during the entire summer season, or, rather, from April to September, inclusive. Almost daily during this period, a deluge of cold damp air, of the same temperature as the ocean over which it has passed, is poured upon the land, laden with dense clouds of mist, which are deposited on the foot-hills and on the slopes of the high lands, or carried wherever there is a break in the land-wall, a short distance into

the interior. This may be termed the sea climate of the Coast Range.

The interior land climate is in every respect as nearly as possible the opposite of this. In summer and autumn it is hot and dry, although it undergoes various modifications from the configuration of the surface of the earth. Even the mountains, which retain the snow till midsummer, present a high temperature in the middle of the day, the presence of snow on their summits in July and August being due not to the coldness of the weather, but to the enormous quantity accumulated during the winter season.

Large stretches of territory lie between these extremes of climate, and are subject to their combined influence; these are the valleys surrounding the Bay of San Francisco, and those which penetrate the interior in every direction.

There is no country in the world which enjoys a climate so delightful as that of these valleys, and none having a more productive soil. Whilst the ocean prevents the contiguous land being scorched in summer, it also prevents its being frozen in winter, and thus the difference in the temperature of the two seasons is comparatively slight; they glide into each other almost imperceptibly, the changes not being distinctly marked.

There are slight variations from this description in the higher mountain regions. In the Sierras some years the cold and heat are more intense, depending on the heavier falls of snow and rain, and the winds are more violent, whilst other years are characterized by great mildness. But whatever the changes of climate may be, California must be regarded as one of the healthiest and most productive countries in the world. In no other do men expose themselves so recklessly, and suffer so little from the consequences.

These peculiar features of the climate of California, and of the Pacific coast in general, find their explanation partly in the peculiar chorography of the country. The Sierra Nevada, exceeding in altitude the Rocky Mountains, stands like a wall of from six thousand to eight thousand feet high, practically bisecting the lower and rain-bearing strata of the atmosphere. This renders the climate of the western slope essentially an insular one, or, at least, one modified to a very limited extent by continental influence. Yet another very important feature is the fact that barometric and

thermometric variation is comparatively of a much narrower range on the Pacific coast than on the western coast of Europe. These are but the scientific expressions of those conditions of majestic equability which first suggested the name "Pacific," a name the significance and appropriateness of which becomes the more striking as our knowledge increases. For this very remarkable exemption from extremes of variation our western coast is indebted to the great width of the Pacific Ocean. The hurricanes generated in that mighty caldron of atmospheric forces, the Gulf Stream, are hurled across the narrower Atlantic with a force sufficient to be severely felt upon the coast of Europe. Storms entirely analogous, and accompanied by electric and caloric changes equally marked, prevail upon the Asiatic coast, but the mighty mass of the Pacific calmly absorbs their fury and prevents their disturbing influence from reaching our shores. The atmospheric changes of the Pacific coast are consequently more uniform, and of minor range. Comparing the averages of winter and summer temperature along the isothermal line of 50° Fahrenheit, the variations on the Atlantic coast are found to be double those on the Pacific. As a specimen of extreme variation it may be stated that the difference between the mean range of winter temperature at San Francisco and the mean of July is only $8^{\circ} 30'$, whereas the variation at Washington, D. C., is $44^{\circ} 30'$, or more than five times as great.

The absence of disturbing meteorological forces, indicated by this narrow range of barometric and thermometric variation, is sufficient to account for that freedom from explosive electricity which is so remarkable a feature in the climate of California.

After these general remarks I will now proceed to give a more definite view of this subject, taking the climate of San Francisco as a basis of comparison, because it is a type of that of the coast and bay regions.

TEMPERATURE—EXTREMES OF HEAT AND COLD.

The records of the climate of San Francisco are gathered from various observers; the fact that in early years occasional interruptions occurred interferes greatly with their value. I have, how-

ever, endeavored to obtain the mean average from the most reliable sources.

The annexed tables are taken from the records of C. G. Ewing, Thomas Tennet, and Dr. Henry Gibbons; they extend from the autumn of 1853 to February, 1874, a period of twenty-one years. They show that the coldest weather occurred in January, 1854, when the mercury fell as low as 25° . The coldest noonday for the same period was 37° . It is not uncommon for an entire winter to pass away without bringing the thermometer down so low as the point of freezing. In the year 1853 it fell at no time lower than 40° , or eight degrees above freezing-point. The extreme of heat during the same period occurred on September 10th and 11th, 1852, when the thermometer reached 97° and 98° on the two days respectively. This, however, was entirely exceptional, and might not occur again in half a century.

During these two days the air was dry as a sirocco, and had a curious effect on the woodwork of houses, causing a constant cracking noise from the shrinking of timber and the plaster breaking on the wooden partitions. In a locality somewhat exposed to reflected heat from the sun, and when the temperature was 100° , a thermometer with a wet bulb fell to 68° , the evaporation reducing it 32° .

With this exception the hottest day in the twenty-one years was on the 6th July, 1867, when the thermometer stood at 93° .

In September and October, 1865, it reached 91° , and in July, 1855, it rose to 90° . Thus it appears there were but six days in twenty-one years when the temperature was as high as 90° , and only two of these six days were in the summer months. The absence of warm weather during the summer months is characteristic of the coast climate, and strikes the stranger forcibly. The most ordinary programme of atmospheric changes for the year is as follows, beginning with the rainy season: The first decided rains are in November or December, when the country, after having been parched with drought, puts on the garb of spring. In January the rains abate, and vegetation slowly advances, with occasional slight frosts. February is generally springlike, with but little rain. March and April are pleasant and showery, with an occasional hot day. In May the sea-breeze begins, but does

not give much annoyance. In June, when the warm weather is about to set in, the sea-breeze comes daily and keeps down the temperature. It continues throughout July and August, occasionally holding up for a day or two, and permitting the sun to heat the air to sweating-point. In September the sea-wind moderates, and there is a slight taste of summer, often prolonged into the next month. The pleasant weather, indeed, often lingers far into the winter, and is interrupted only by the rains in November and December.

By running the eye over the following table a general idea may be gained of the coast climate as regards temperature. The first column represents the average temperature of each month at sunrise; the second at noon; the third is the mean of the other two for a period of twenty-one years:

Months.	Mean at Sunrise.	Mean at Noon.	Monthly Mean.
January,	44	56	50
February,	47	60	53.5
March,	48	63	55.5
April,	49	65	57
May,	50	64	57
June,	51	60	59.5
July,	52	67	59.5
August,	53	67	60
September,	53.5	69.5	61
October,	53	68	60.5
November,	49	62	55.5
December,	45	55	50
	49.5	63.7	56.6

This table shows a regular increase from January to September, and a rapid decrease from October to December; nine months of increase to two of decrease. The uniform increase of the night temperature, as represented in the first column, must also be noticed, as well as the irregularity of the noonday increase, the sea-breeze arresting it in May, and the sun giving it an upward impulse in June, before the sea-wind has gained undisputed control.

I also add here, in corroboration of the above, a table showing the calculations of the mean temperature for the summer and

winter months of San Francisco, taken by C. P. Ewing from his standard meteorological instruments :

Winter.		Maximum.	Minimum.
Mean thermometer for	December, 1873,	. 60 ·	52
“	“ January, “	. 59 $\frac{1}{5}$	54 $\frac{1}{2}$
“	“ February, “	. 57 $\frac{1}{4}$	50 $\frac{1}{4}$
Summer.		Maximum.	Minimum.
Mean thermometer for	June, “	. 63 $\frac{1}{5}$	58 $\frac{1}{2}$
“	“ July, “	. 68 $\frac{1}{5}$	59 $\frac{1}{2}$
“	“ August, “	. 68 $\frac{2}{3}$	60 $\frac{2}{5}$

The apparent difference in the month of February is caused by the fact that it contains only twenty-eight days. During the summer months there is scarcely any fall of temperature through the night in the Coast Range climate. The early morning is sometimes clear, sometimes cloudy, but always calm. The nights are never uncomfortably warm.

The extreme heat at 10 P.M. in San Francisco, during twenty-one years, was 76°. The thermometer reached this point on three different nights; on two nights it reached 75°; on four, 73°; on two, 72°; and on five, 70°; making only sixteen evenings in twenty-one years, when it was warm enough at bedtime to sit out of doors in light clothing. The warmest morning in twenty-one years was 69°. These facts have special interest in relation to sleep.

CLIMATE OF THE INTERIOR.

The varieties of climate in the valleys of the great central basin are not so easily described, each of them having its own peculiar character. That of the Sacramento, San Joaquin, Feather River, and Napa Valleys, is frequently very uncomfortable during the entire summer season.

While the climate of California, generally, has not inaptly been compared with that of Italy, perhaps in no part is the comparison more completely carried out than in the San Joaquin Valley. Low down this valley, midway between the two mountain ranges by which it is inclosed, the temperature is almost exactly that of Naples, as the following record of thermometrical observations,

representing the mean temperature of each month of the year in Stockton and Naples, will show :

	Naples.	Stockton.
January,	46	49
February,	47	51
March,	51	58
April,	56	60
May,	64	64
June,	70	74
July,	76	76
August,	76	74
September,	69	69
October,	61	67
November,	53	56
December,	49	48

The temperature of the latter place is taken from the record kept by Dr. R. K. Reid, embracing a period of four years.

The thermometer ranges from 75° to 100° in Sacramento, gradually increasing, on going north or up the Sacramento Valley, from 100° to 120°.

The dry land winds from the north, which sweep through the entire State in winter, are confined to the interior in summer. Occasionally they sweep like a sirocco over these valleys and burn up all vegetation. Fruit is sometimes roasted on the trees by the combined influence of sun and wind. The sweltering heat and sultry condition of the atmosphere are, however, controlled by the sea-breeze, which rushes in through every depression of the highlands of the coast. At the Golden Gate it has fair sway, it pours in and spreads itself over the heated earth in all directions, following the course of the bay and of the great rivers, unfolding like a fan, and whirling its cooling waves into all the valleys of the interior; its beneficent influence is felt even on the slope of the Sierra Nevada. The sea-wind modifies and equalizes the temperature of these valleys; it makes the heat of the day endurable, and the nights cool and pleasant.

Though the nights in the interior are not uniformly cool, yet there are few localities where they are too warm to be comfortable, even should the temperature of the day have reached 100°.

This is a remarkable feature in the climate of the Pacific States,

and it has an important bearing on the health, vigor, and character of the population.

CLIMATE OF THE SOUTH.

The climate of the southern portion of the State, as far down as San Diego, is remarkably uniform. From the fact of this place lying so far south, it is generally supposed to be necessarily excessively hot during the summer; on examination this is found to be a surprising error.

The records of the official report of the United States Signal Service show that during the year 1873 the thermometer only once reached 85°, and that was in November, and only once did it go so low as 37°, which was in the month of February.

Mean Monthly Maximum and Minimum of Thermometer.

	Maximum.	Minimum.		Maximum.	Minimum.
January, . . .	74°	48°	July, . . .	77°	60°
February, . . .	77	37	August, . . .	78	63
March, . . .	72	40	September, .	82	55
April, . . .	82	43	October, . .	76	49
May, . . .	75	52	November, .	85	49
June, . . .	75	58	December, .	86	44

This uniformity of temperature in Southern California is unparalleled; it certainly has no equal in the United States nor in Italy.

I also add, from the same report, a record of the barometrical variation in San Diego during the year 1873.

The barometrical variation at San Francisco corresponds with the following table. The average mean for 1873, computed from the tables of several observers, at elevations not over one hundred and sixty feet above the level of the sea, is 30.05. The greatest variation was observed on the 3d day of December, when the barometer stood at 29.81 in the morning, sinking to 29.48 in the evening, with a southeast wind, accompanied by hail and heavy rain; the following day, December 4th, the country around San

Francisco was covered with snow; heavy rain followed; barometer, 29.39, and rising to 29.68 the next day, and being very changeable until December 11th, when it rose to 30.34, the highest point during the year. This remarkable atmospheric convulsion seems to have indicated the severe and prolonged winter we have since experienced.

Barometer.

1873. MONTHS.	Mean.	MEAN OF			RANGE.			RAINFALL. Amount in inches.
		A.M. Observation.	P.M. Observation.	Night Observation.	Highest.	Lowest.	Difference.	
January.....	30.06	30.06	30.03	30.06	30.18	29.84	.34	0.44
February.....	30.07	30.07	30.05	30.08	30.41	29.83	.58	4.15
March.....	30.06	30.08	30.05	30.07	30.32	29.82	.50	0.11
April.....	30.02	30.02	29.99	30.04	30.30	29.68	.44	0.10
May.....	29.94	29.94	29.94	29.94	30.05	29.86	.19	0.01
June.....	29.94	29.93	29.93	29.96	30.13	29.80	.33	0.00
July.....	29.96	29.95	29.98	29.95	30.04	29.80	.24	0.00
August.....	29.96	29.96	29.96	29.97	30.08	29.85	.23	1.95
September.....	29.92	29.92	29.91	29.93	30.08	29.71	.37	0.00
October.....	30.01	30.02	29.99	30.02	30.16	29.82	.34	0.00
November.....	30.05	30.05	30.03	30.06	30.23	29.83	.40	0.77
December.....	30.03	30.09	30.07	30.10	30.27	29.86	.41	5.46
Annual mean....	30.00	30.00	29.99	30.01	30.18	29.82	.34	Total, 12.99

CLIMATE OF THE SIERRA NEVADA.

The numerous valleys in this range of mountains, whose altitude exceeds three thousand feet, enjoy a mild and exhilarating climate. The seasons are more marked: during the summer months the thermometer rises, in some localities, from 75° to 90°; yet in the winter, in these same localities, some of which have an elevation of five thousand feet, it is rare to find ice over an inch thick. The great fall of snow in winter is unaccompanied by any severe degree of cold. Up to an elevation of six thousand feet these valleys are quite fertile, producing wheat and other cereals, as well as the finest and most delicious potatoes and fruits. Crops in these regions sometimes suffer from late spring and early autumn

frosts. Still, at the highest point of elevation in these valleys the days are temperately hot, the nights moderately cold. In the higher regions the winters are very severe; in some parts the accumulations of snow are from ten to fifty feet deep; travel is frequently interrupted for weeks, and cannot be resumed until the snow has become sufficiently hard to allow of the use of snowshoes.

Subjoined are a few quotations from our newspapers bearing on this subject:

“March 12th, 1873. In many respects the past winter has been the most unpleasant and, at the same time, one of the most promising winters for our farmers that we have ever experienced in this district. Last winter we had not to exceed a dozen unpleasant days; this winter we have had scarcely a dozen that could be called pleasant. We have had an unusual number of rainy days and cold, frosty nights. The former are just what the country needed to give assurance of abundant harvests, and the latter have held in check the fruit buds until the proper time for their unfolding, thereby placing our fruit crops beyond the contingency of spring frosts.

“The rainfall in this section has been a little over ten inches, while in the hills adjacent it has been more than double that amount. No floods have occurred, and the country has had the full benefit of all the rains. We can put up with unpleasant days and bad roads, in view of the promise they have brought us of bountiful crops.

“But the contrast with last winter is truly remarkable. December and January of that year (1872–1873) were delightful months. There was no frost during the latter month, and not till about the middle of February, at which time the young potato vines, self-planted, were nearly a foot high. Almond trees were in full bloom in January—this year not till a month later.

“Without any more rain we should have an abundance of hay and an average wheat crop.

“If our Eastern visitors have been disappointed in our winter, which at its worst was far preferable to the mildest of Eastern winters, we hope to make amends from this time on. Spring will not open in the East for two months yet; here it is just at our

doors. April is always a delightful month with us—flowers and sunshine enough to satisfy the most exacting. Already the trees and shrubs are beginning to put forth their foliage, and the early flowers to gladden the bright spring days. If the winter has not been all that we could have desired, the spring months before us will make ample amends.”—*San Jose Mercury*.

March 24th, 1873. The *Truckee Republican* gives the following picture of winter life on the Sierras :

“As Truckee is blessed with more snow than any other town of its size in California, it may be of interest to the outside world to know how people endure so much luxury and cold comfort.

“To obtain an entrance to a private dwelling you have to descend a narrow incline through the snow, to a depth of from six to ten feet, and you reach the front door. You enter the sitting-room and find lamps burning. It is broad daylight on the outside, but without lamps it would be dark within, for the windows are all sealed up with solidly banked snow. The snow may be only five or six feet deep on a level, but the buildings act as a barrier against which the snow drifts, and these drifts are increased by that which slides from the roof, until in many instances the eaves of the latter are reached. Back of the business houses and blocks on Front Street, the snow has accumulated in places to the depth of from twelve to twenty feet. Where it is so deep, instead of open cuts, tunnels are made through the mass to afford ingress and egress. Fences are no obstructions—cannot be seen, and could only be found by deep prospecting. The telegraph poles and flag-staff (some ninety feet high) still keep above and bid defiance to the whirling, eddying, tempestuous drifts. The people of Truckee are proudly conscious that they have all the advantages which can be derived from their elevated position, which insures them a timely and abundant crop of snow. Their location is peerless, and it is no wonder that they are as happy and contented as the humble Innuits on the coast of Greenland, Northern Labrador, or Nova Zembla.

“Good health and amazing appetites are the rule in Truckee.”

A RECORD OF METEOROLOGICAL OBSERVATIONS TAKEN BY
DR. BOURNE AT LAKE TAHOE.

Dr. W. B. Bourne, who is spending the winter at Cornelian Bay, Lake Tahoe, sends to Mr. Von Schmidt each month a record of the weather there. The report for February has not been received, but that for January contains some remarkable statements. There seems to be much more clear weather there during this unusually stormy winter than we have in San Francisco.

“ The total snowfall during January was 94 inches, the rainfall $2\frac{3}{4}$ inches, yet there were 14 clear and fine days, 8 variable, and 9 stormy. Calm weather, 15 days; light breeze, 7 days; windy, 9 days; 20 nights were clear in most part. Of the fine weather during the month, the greater portion is represented as ‘ absolutely charming;’ except when the south wind dominates, there is during the night a light breeze from the north, termed the land-breeze, and this seldom fails to clear the lake of any haze or fog, the southeast angle excepted, which seems to be a pocket into which whatever fog exists is driven. This land-breeze is said to prevail the year round. In the sunshine it is always warm. On the 4th January, at 10.30 A.M., in a sunny exposure, sheltered from the breeze, the thermometer indicated 78° . On several other days, under the same circumstances, it reached 90° . The lake has risen nearly 14 inches above low stage. After a snowfall of nearly 14 feet and a rainfall of 4 inches, the temperature of the water has fallen to 40° , being 6° lower than a test made in December, and probably 8° or 10° lower than the fall temperature. The following is the temperature of the atmosphere during the month of January, 1873, taken three times daily:

"January, 1873.

Day of month.	6 A.M.	M.	6 P.M.	Day of month.	6 A.M.	M.	6 P.M.
1	26	38	34	18	18	31	24
2	33	37	20	19	22	26	20
3	8	28	15	20	11	21	16
4	12	36	26	21	12	26	20
5	23	38	30	22	8	30	10
6	30	40	33	23	9	43	20
7	20	38	28	24	14	42	24
8	22	42	30	25	24	44	30
9	23	46	28	26	34	42	24
10	22	42	29	27	22	46	32
11	23	41	28	28	29	36	32
12	20	46	32	29	22	44	30
13	29	47	32	30	24	42	32
14	32	42	36	31	20	37	22
15	36	47	40				
16	35	38	32	Mean,	22½	38½	27"
17	30	31	26				

SNOW AND RAIN.

The great valleys of the State are free from snow. Hail falls frequently in some seasons, mingled with rain. Three such storms in one season would cause it to be pronounced a hard winter. In some localities, during twenty years, there has been but four times sufficient snow to cover the ground, but on the most favored spots it did not, even then, remain more than a few hours. On the 29th December, 1856, it snowed hard in San Francisco for several hours, and from 2 to 3 inches of snow collected, but melted away before night; on the hills which surround the bay, however, it remained for nearly a week. Early on the morning of January 12th, 1868, it snowed very fast for about two hours, covering the ground, but the snow had disappeared with sunrise, and was, therefore, not generally noticed. The mountains of the Coast Range are frequently covered with snow as seen from the

metropolis, but it seldom remains longer than a few weeks. When it rains in San Francisco with a temperature below 50°, it generally snows in the mountains.

On the mountains of the Sierra Nevada snow accumulates some years in enormous quantities. The tales told about its depth in some places are almost incredible, not only on the Alpine heights (for perpetual snow exists on the highest peaks), but in populated districts which have in summer a luxuriant vegetation. During the winter of 1866-7, snow accumulated in some places to the depth of 40 feet, as measured by the trunks of trees. The reports from the mountain regions this season are, that the fall of snow during the past winter exceeds that of any previous year, and on that account those who have studied the climatology of this State predict ample rain this season, late enough to insure full crops throughout the State; they argue that the deep snows on the Sierras condense the moist atmosphere which comes from the Pacific Ocean, and thus cause a sufficient supply of rain during the spring months of March and April. It is worthy of note that whenever the deep snows remain unmelted as late as March in the Sierras, rain has always been plentiful in the spring. The extreme severity of the winter in the mountains is in this manner more than compensated for by the assurance of a bountiful harvest in the valleys.

During the winter, 1867-8, 60 inches of rain fell before the 1st January on the South Yuba. When we reflect that 1 inch of rain is equivalent to 9 inches of light snow, or 6 inches of packed snow, we perceive that counting but 6 inches of snow to 1 of rain, this would have measured 30 feet of snow. As even 40 inches of rain are recorded as having fallen in a month, we may perceive where so much snow comes from.

According to Blodgett's hyetal chart, the annual fall of rain at Sacramento City is about 22 inches, decreasing southward to almost nothing. The warm southeast wind from the region of the Gulf of California and the western coast of Lower California, deposits a very small amount of rain in the latitude of San Diego, but parts with its moisture gradually and more freely on its way to the higher and colder regions. In the northern part of the State and on the western slope of the Sierras, the average of the

rainfall is stated to be 33 inches per annum. The general average is about one half of that of the States east of the Mississippi. This average increases northward. At Humboldt Bay it is about 45 miles until at Vancouver Island it reaches about 65 inches per annum. At Puget Sound there is hardly any difference between the wet and dry seasons, the fall of rain being distributed throughout the year. On Sitka Island it becomes excessive, the mean being 89.90 inches on the average of the year.

Thunder-showers are more frequent in the mountain regions than in the valleys, where it is deemed a remarkable phenomenon if a rain-storm be accompanied by thunder and lightning, which, however, occasionally happens in a very mild form, without being generally observed. Only two real thunder-storms are recorded in the annals of San Francisco, both occurring in December, in connection with cold winter rains. Such electrical displays are confined mainly to the winter, though on rare occasions they take place during the summer, particularly in the interior. Lightning-rods are unknown in California, nevertheless the lightning does sometimes strike. In August, 1862, a thunder-storm passed over the southern portion of Alameda County, striking and shivering several telegraph poles. In December, 1864, the court-house at Monterey was struck by lightning and somewhat damaged.

The electric equilibrium is not easily disturbed on the Pacific coast; those little exhibitions of what may be termed domestic electricity, so common in the Atlantic States, such as crackling of clothing and furs, are seldom witnessed here. They are rare even during the winter months, though the air be thoroughly dried by a north wind. It is well known that sudden changes of temperature and rapid formation of clouds are favorable to electric disturbances. In the bay climate the few hot days that occasionally steal in with the land-wind during the summer months, are followed by an immense deluge of cold ocean air, which depresses the thermometer from 85° to 55° in a few hours, and determines the sudden formation of immense volumes of clouds. All these changes take place without visible electrical disturbance. The rapidity with which clouds are formed in the rainy season, giving rise to sudden showers, is most surprising.

The aurora borealis is also rare, having been observed only

about ten times during twenty years. The extraordinary displays of 28th of August and 1st of September, 1859, appear to have been as brilliant on the Pacific as on the Atlantic coast.

SANITARY CONDITIONS OF THE CLIMATE.

In relation to health the climate of California is unsurpassed by any other, not excepting that of Italy. It promotes the physical development of animal and vegetable life, including that of man in an unusual degree. The laborers who toil in the extreme heat of the interior, preserve their health and vigor unimpaired; this is partly due to the dryness of the air, which promotes the rapid evaporation of sweat, and partly to the coldness of the nights, which favors rest and recuperation. The atmosphere, calm in the mornings during the day, is warmed and rarefied by the heat of the sun, and gradually loses its equilibrium, but towards evening the heavy, cool sea-wind, sweeping up the outlet of the valley, and in through the passes of the mountains, again restores nature's disturbed balance. In this way, by a law of nature, daily, during the summer months, the whole vast interior basin is filled with the reinvigorating atmosphere of the ocean, aided somewhat in the night by the cool currents descending from the snowy crests of the Sierras. These atmospheric currents sweeping daily through the valleys, free the country from those miasmatic exhalations and pestilential fermentations which would otherwise incubate and brood undisturbed over the rich bottom-lands along the borders of the rivers. Thus, by a beneficent law of nature, in obedience to which this purification is and ever will be carried on, the health and vigor of our daily increasing population is greatly promoted.

The climate of California seems to be remarkably adverse to epidemic diseases; the cholera, which made a visitation in 1850, was scarcely felt anywhere except in Sacramento, where a combination of the most unfavorable circumstances gave it destructive power. Variola made its appearance in the winter of 1868-9; it was malignant and severe all over the western continent, and California did not escape. With the exception of the above, it may be said that no malignant epidemic has prevailed in California since its settlement by Americans; scarlet fever and the

various other forms of disease, common elsewhere, are found here, but they present no peculiarities worthy of comment. Insanity, disease of the heart and of the arteries, are frequent, but these are due rather to moral and physical causes than to climatic influences. Miasmatic diseases, still prevalent in some localities, particularly in marshy districts, along the borders of rivers and in low bottomlands, appear to be less violent, and generally of a milder type of late years than formerly; the spirit of progress with all its wondrous inspiration has repaired the defects of nature, and accomplished this wondrous result. In many of the interior valleys, subject to miasmatic fevers years ago, the disease is almost unknown to-day. Influenza prevails with greater or less force, especially in the summer months, and particularly in the bay district.

SUNSTROKE.

Notwithstanding that in some seasons the heat in the interior valleys is at times almost torrid, sunstroke is a thing unknown in California. Some few cases, indeed, have been reported as such, but these were not justly discriminated. Exhaustion from heat, of course, is as liable to occur here as elsewhere, but during an experience of twenty-four years I do not remember ever having witnessed, or even heard of a single well-authenticated case of sunstroke proper.

In pulmonary affections the climate of California is presented under its most important aspect. Many persons in the first stages of lung disease have here regained their health. Consumption is developed in California as in most other portions of the temperate zone. The chilly winds of the ocean climate in summer, whilst in many cases they brace the system against debility, enabling it to resist the invasion of disease, in others depress the vital forces below the power of resistance. The climate most suitable to consumptives must be individual in all cases. Some may be benefited in cold climates, for in some cold and exposed parts of the globe we find that this form of disease is almost unknown; others may find relief in milder and even tropical climates. But in selecting a home for this class of patients, California offers a greater variety of advantages than any other country. For consumptive and asthmatic patients the higher regions of the Sierras, such as the Yosemite

Valley and Lake Tahoe, or Clear Lake in the Coast Range, are the most favorable. Lake Tahoe is situated between the eastern and western summits of the Sierras at an elevation of more than 6000 feet; by careful sounding its depth has been found to be 1350 feet. Clear Lake, a beautiful sheet of water, embosomed in the mountains of the Coast Range, has a coast-line 60 miles in length, and lies 1200 feet above sea-level. The water of these lakes is clear and pure as that of the lakes of Switzerland. The dryness of the atmosphere during the summer, the amount of ozone, the many topographical advantages, together with the attractive and beautiful scenery, make these regions a paradise for all classes of invalids.

MINERAL SPRINGS.

Mineral springs, from the boiling hot to the icy cold, are more abundant and found in greater variety on the Pacific coast than in any other country. It is a subject of sincere regret that their nature, applicability, and proper method of administration, have received so little attention from physicians and the public at large. Certain opinions prevail as regards the curative powers of some of the most frequented watering-places; these opinions, however, are mere suppositions, the fruit of accidental experience. There is a lamentable want of information even among enlightened physicians as to the specific nature and adaptation of mineral waters to particular diseases.

MORTUARY STATISTICS OF SAN FRANCISCO FROM THE REPORTS OF THE HEALTH OFFICE.

During the fiscal year ending 30th June, 1873, three thousand six hundred and forty-one (3641) deaths occurred in San Francisco. This was a much larger mortality than during either of the two preceding years, but was four hundred and fifty-two (452) less than that of 1868-9, when small-pox and scarlatina carried off over nine hundred (900) of our population. In the year 1872, the death-rate was about 17.5 per thousand inhabitants. For the year just ended (1873) it was 19.33, if we assume our population to be 188,323 as computed by Mr. Langley at the beginning of the year, though the present population, according to the National

census, will probably be about 230,000, including about 15,000 Chinese. These Chinese largely increase our death-rate, for, in proportion to their numbers, they have, among such as are over fifteen years of age, nearly 5 deaths to every 2 of other nationalities, and nearly 2 to 1 of all ages, thus increasing the rate of mortality about 1 per 1000.

For the purpose of comparison, I annex the following table showing the death-rates for a series of years in ten of the principal cities of the Union. Many of the rates have been obtained from the reports of these cities, and are supposed to be approximately correct.

Table of Death-rates showing the number of deaths annually per 100 inhabitants in the following cities:

	1866.	1867.	1868.	1869.	1870.	1871.	1872.
New York,	33.52	32.27	25.45	29.42	29.33	27.52	32.64
Philadelphia,	24.28	19.78	20.57	20.25	22.72	22.59	26.28
Brooklyn,	27.80	27.81	24.37	....	24.08	24.72	30 00
St. Louis,	46.30	30.20	20.60	20.60	21.30	16 82	23.02
Chicago,	32.22	21.17	23.74	23.17	24.50	21.46	27.60
Baltimore, . . . .	....	24.45	....	....	25.88	25 23	25.94
Boston,	22.76	....	....	23.34	24.34	22.70	30.53
Cincinnati,	34.92	20.12	24.65	18.00	....	21.74	20.46
New Orleans, . . . .	....	54.28	....	....	36.24	23.00	30.61
San Francisco,	21.00	19.20	25.55	23.30	21.00	17.40	17.50

Of the ten principal cities in the United States, we thus see that San Francisco has the lowest and by much the lowest death-rate, a fact which of itself speaks volumes for the salubrity of the climate.

I also add a table of death-rates in the principal British and one or two other foreign cities for the year 1871.

London, . . .	27.7	Birmingham, .	24.9	Edinburgh, . .	26.9
Liverpool, . .	35.1	Dublin, . . .	26.2	Bristol, . . .	23.2
Glasgow, . . .	32.9	Leeds, . . .	26.4	Montreal, . . .	36.9
Manchester, .	31.2	Sheffield, . . .	28.3	Havana, . . .	45.8

In New York, Brooklyn, New Orleans, and most of the foreign cities, a high death-rate is the rule; while in Philadelphia, St. Louis, Cincinnati, and San Francisco, a high death-rate is the exception.

The death-rate of San Francisco is much increased by deaths from unknown causes. These are mainly of Chinese.

In order to give some idea of the comparative prevalence of the various classes of disease in the above-mentioned American cities, the following table showing the percentage of the total mortality in each class has been prepared:

Deaths from	San Francisco, 1850-59.	San Francisco, 1859-60.	San Francisco, 1870-71.	San Francisco, 1872-73.	San Francisco, 1866-73, Average of 7 years.	New York, 1871.	Philadelphia, 1871.	Brooklyn, 1871.	St. Louis, 1871.	Chicago, 1869.	Boston, 1871.	Cincinnati, 1869.	New Orleans, 1871.
Zymotic diseases.....	17.3	25.1	19.5	17.9	23.5	31.0	28.3	27.9	25.5	40.0	23.9	29.0	20.2
Constitutional diseases.....	25.6	18.3	19.7	18.4	18.5	23.2	17.7	24.3	14.7	12.1	23.4	15.2	17.7
Local "	37.9	33.9	39.6	38.8	38.6	34.4	35.2	36.4	42.4	30.0	34.7	34.7	44.8
Developmental "	8.0	6.5	13.8	11.3	11.5	6.6	14.7	8.3	13.5	13.5	11.7	7.2	12.4
Violence.....	7.2	7.0	4.5	4.2	4.5	4.8	3.4	3.1	3.9	4.1	5.3	4.4	4.7
Unknown causes.....	4.0	9.2	2.9	9.4	3.4	...	.7	...	...	.3	1.0	9.5	.2

We find that in San Francisco the percentage of mortality from zymotic diseases was lowest fourteen years ago, a fact to be expected from the small proportion of children among its inhabitants, and for the same reason, there was a lower death-rate from developmental diseases, while at the same time there existed a higher death-rate from constitutional diseases and casualties. The mortality from constitutional diseases bears a more uniform ratio to the population than that of any other class; hence its proportion to the total mortality will always be larger during the healthier periods. Consumption, which constitutes the vast majority of deaths from constitutional causes, is but little amenable to such influences as produce sudden and excessive ravages, but of this disease I shall speak further on.

Except during the fatal epidemic of small-pox in 1868-9, when the deaths from zymotic causes were almost two-fifths of the whole

number, the proportional mortality from these diseases in San Francisco has been about one-fifth, the average for seven years being 23.5 per cent.; this is a lower rate than that which obtained in any of these cities except New Orleans, the year 1871 having been an unusually healthy one in that city, where yellow fever so often commits such fearful havoc. The highest rate presented was in Chicago in 1869 (later records not being at hand), where there were 730 deaths from cholera infantum alone.

The ratio for San Francisco shows a marked increase during the past fifteen years, and very naturally, since the major portion of such deaths are among children.

In deaths from developmental disease the table shows a wide difference, but perhaps this is more in appearance than in reality. The immense number of deaths reported from debility, inanition, marasmus, atrophy, and kindred terms, and the different opinions which exist with regard to such cases, render it probable that they may be differently classed in different cities.

CONSUMPTION.

Though the number of deaths from consumption in San Francisco is largely increased by our Chinese population, yet the total of deaths from this form of disease has scarcely changed during the past three years; 518 deaths occurred from consumption in 1871, 512 in 1872, and 514 in 1873. This uniformity is also noticeable in previous years. In 1872, of Chinese alone, 121 deaths from consumption are recorded, or over one-third of their total mortality, a result manifestly incorrect, and, of course, to a great extent, vitiating our records. During the year just closed, the number reported is but 69, which probably is nearer the mark.

It is a noteworthy fact that more deaths from consumption occur among our Irish population than among those of any other nationality.

San Francisco is the resort of those afflicted with this disease; here they hope to find, if not perfect cure, at least relief from their sufferings.

SAN FRANCISCO, April 20th, 1874.

General Record of Medical Science.

On Arrhythmic Action of the Heart, by Professor Nothnagel.—There are four forms of arrhythmia cordis: 1. The *pulsus bigeminus*, a longer pause after two pulses (corresponding to two contractions of the heart), and the *pulsus alternans*, a modulation of the former; high pulse, a longer pause; low pulse, a shorter pause, etc. 2. *Periodical irregularity*, with a certain type of irregularity. 3. *Perfect irregularity*; delirium cordis. 4. *Intermittens* of the heart's action, where from time to time a pulse-wave entirely omits.

Arrhythmia of the heart is observed: *a.* In cerebral diseases, in meningitis simplex, and tuberculosa, at the time when the pressure of the brain increases in the form of an intermittens; perfect or periodical irregularity in apoplexies, and sometimes also in tumors, concussions and great cerebral anæmia. *b.* In affections of the vagus, caused by pressure on the nerve, rarely. *c.* From psychical influences, mostly as intermittens. *d.* In consequence of the action of cold bathing. *e.* In affections of the digestive organs, in gastric and hepatic diseases, dyspepsia. *f.* As a symptom during and after the crisis of acute febrile diseases, pneumonia, febris recurrens, erysipelas, etc. *g.* As the initial stage of acute febrile diseases in persons of low vitality. *h.* As a symptom of protracted febrile diseases, especially in typhus, also giving a bad prognosis. *i.* In anæmia, especially after profuse hæmorrhages. *k.* In chronic bronchial catarrhs, as a manifestation of secondary fatty degeneration of the right ventricle. *l.* In asphyxic states, laryngostenosis, laryngospasmus, œdema glottidis. *m.* In senility, a sequel of atheroma of the coronary arteries. *n.* As an expression of independent neurosis cordis; also observed in chorea. *o.* Abuse of coffee, tea, tobacco. *p.* In angina pectoris. *q.* In organic diseases of the heart, in pericarditis, fatty heart, valvular affections.

The patient has sometimes a sensation of the abnormal action of the heart, a sensation as if the heart stands still, with painful anguish; at other times a desire to yawn, and a sensation of goneness in the epigastric region, with canine hunger.—*D. Archiv f. Klin. Med.*, xvii, 2 and 8.

A Remedy to remove Nitrate of Silver Spots.—Put in a saucer a few centigrammes metallic Iodine, put upon it a few drops Ammonia, and touch with it the spots, which then immediately disappear. The mixture must be destroyed immediately after using it.—*Arch. Med. Belge.*, Apr. 1876.

Compression of the Aorta in Post-partum Hæmorrhage.—Dr. Leon Gros (*Bull. de Therapie*, 83, 1875) reports six cases, where he succeeded in saving the life of the patient by compression of the aorta. The fifth case confirms the opinion of Cazeaux, that the value of this method does not only consist in arresting the flooding, till we succeed by further means to produce lasting contractions of the uterus, but also in preventing anæmia of the brain and of the medulla oblongata. Where death sets in a few hours after the cessation of the hæm-

orrhage, this anæmia is the cause of it. We must be, therefore, careful to compress only the aorta, and not simultaneously the vena cava, the head must be kept in a lower position than the pelvis, and the exhaustion remedied by suitable means.—*Med. Neuigk.*, April, 1876.

Rubber-Paper and Oil-silk for Skin Diseases, by Dr. Ernest Besnier.—Colson, of Beauvais, was the first to apply rubber-paper or oil-silk in skin affections. It is advisable to clear them well before their application, wash them in cold water, and then dry them again so that they can be wrapped closely and immediately around the affected skin. These wrapping processes may be continual or intermittent, the latter most usual, they being applied at night before going to bed, and removed in the morning, so that during the day other applications may be made. Its immediate effects are increased secretion of the skin and diminished friction of the clothing; the skin becomes somewhat macerated, and its morbid products quickly removed by the increased perspiration. The itching, so troublesome in many cutaneous diseases, soon ceases. It is indicated wherever we are in the habit of using poultices and bathing, as in eczema, impetigo, ecthyma, lichen, especially in all forms of prurigo. It is injurious in general psoriasis, pemphigus, erysipelas, and in the syphilides. Hebra also used them beneficially in ichthyosis, tylosis, and pityriasis. Pick recommends them especially in such skin affections, where the cutis is perfectly dry, as it prevents evaporation. Pick, on the contrary, uses the tar ointment, or one of Amylum and Glycerin (1 : 8) during the night, cleanses well the affected parts in the morning, and then puts on his rubber bandage.—*Schmidt's Jahrb.*, 1876.

On Essential (Progressive Pernicious) Anæmia, by Dr. Eichorst.—Eichorst considers this disease an affection of the red blood-corpuscles, which can be as easily recognized as leucæmia. Whereas, one part of them are of normal size, only pale, and with only a slight tendency to form rouleaux; others are extremely small, not the fourth part of well-formed corpuscles; yea, some of them look more like small, reddish-colored fatty drops. At a profile view the biconcave segment is more or less perfect, or entirely gone. The more the disease progresses, the more such foreign elements will be present. He found in all his cases the white blood-corpuscles deficient, and only a small number of protoplasmic lumps, found so frequently in the blood of healthy persons.—*Med. Neuigk.* 29, 1876.

The Pathological Anatomy of Diabetes, by Prof. Eppinger.—Klebs, Monk, and now Eppinger, found in mellituria pathological changes in the plexus solaris, an interstitial proliferation of the connective tissue, a sure sign of a chronic inflammation, showing itself not only in the plexus solaris, but also in the surrounding tissues. Thus in one case (mellituria of six years' standing), the pericapsular cellular tissue of the left suprarenal gland and of the tail of the pancreas was hypertrophied, and imbedded in it the totally changed plexus solaris. In another case, a chronic hyperplastic interstitial inflammation of the pancreas, with a large cyst towards the tail, the surrounding cellular tissue chronically inflamed, as also the plexus solaris. In all these cases

we see also disease of the pancreas. We may suppose, therefore, that the *etiology of mellituria may not be considered a unit, but that the diabetes may be a symptom of different morbid states.*—*Prag. Med. Wchschrft.*, 14, 1876.

Two Fatal Cases of Essential Anæmia (Progressive Pernicious Anæmia).—Dr. Scheby Buch treated two cases of this disease. 1. A farmer, 48 years old, never sick before, and always living in good circumstances. A year before his death he suffered from large ulcers on his legs, discharging abundantly blood and pus. He entered the hospital, May, 1872. Since Christmas he has kept his bed, complaining of headache, surring in the ears and vertigo, sight and hearing decreasing, the teeth also became loose. His complexion was waxy; *the ophthalmoscope reveals bilateral hæmorrhages in the retina.* There is no increase of the white blood-corpuscles, and the red ones are pale. The blood in general has a pale, watery appearance. He lost all his appetite, vomited towards the end, and the epigastric region became very sensitive to pressure. Collapse set in, and he died August 15th. Autopsy: Pia œdematous and atrophic; convolutions atrophic; brain anæmic and œdematous; heart small, pale, relaxed; spleen slightly enlarged; liver pale, clayey; the blood mostly fluid; all organs of the body very pale and anæmic; the lumen of the aorta normal; in both retinæ small pointed hæmorrhages. 2. A seamstress, aged 60; always living in good circumstances. She ailed already for several years, complaining of pains in the hepatic region, constipation, and loss of appetite. She entered the hospital June 17th, 1874. Pale, yellowish skin; all mucous membranes very pale; liver and spleen slightly enlarged; pulse small; blood pale red; hydræmic; no increase of the white blood-corpuscles, the red ones pale and small. Collapse. Death, July 1st. Autopsy: Adipose tissue well preserved and of lemon color; great œdema of the pia; brain pale and firm; heart of normal size, but muscular fibres very pale; parenchyma of the liver pale; spleen large, glomeruli clearly visible; kidneys very pale; small pointed hæmorrhages in the retina; all organs very pale. The microscope revealed fatty degeneration of the heart, of the renal epithelia, and of the hepatic cells; the marrow of the radius pale-red with few fatty cells, and numerous cells similar to white blood-corpuscles.

The author prefers to call such cases *essential anæmia*, as there is no cause for it yet established, but leads our attention to the *anchylostoma duodenale*, which has been found in anæmia of the tropical regions, and in one case observed at Vienna, 1872.—*Z. f. Pract. Med.*, 28, 1876.

Scarlatina Puerperalis, by Prof. R. Olshausen.—Primiparæ, on account of their youth, and when they never had scarlatina, are more disposed to it than multiparæ. During pregnancy very few take the disease. The exanthema breaks out during the first days of the puerperium; its course may be light or very violent, or even fatal, during the first forty-eight hours. The mortality is a high one (48 per cent.). The sooner post partum the scarlatina appears, the more dangerous the case. It is characteristic of scarlatina puerperalis that the exanthema breaks out at once over the whole body, and follows rapidly the beginning of the fever. In malignant cases the eruption shows a livid, bluish-red color on the trunk, continuing till death ends the

scene. The copious perspiration causes sudamina, and this scarlatina miliaris, as it is erroneously called, hardly ever shows an ichorrhæmic character. Angina is light or entirely absent; diarrhœa at the same time is of evil omen. Lochia are mostly not disturbed; sometimes the uterus is slightly sensitive to pressure; inflammatory abdominal affections are rare and more accidental complications.

The excessively short incubation of scarlatina during the puerperium, coming on in four-fifths of all cases up to the third day post partum, may be explained, that the infection took place a long time before labor set in, but that the disease only breaks out post partum.—Arch. f. Gynæcol., ix, 3.

Editorial.

WE hear from Liverpool, that, on August 31st, Dr. Hayward called together about twenty of his colleagues, and gave them an account of the reception met with by himself and his fellow-delegates to the "World's Homœopathic Convention." Amongst other things, he said that nothing could exceed the kindness and liberality with which they were treated; that everything was done, professionally and socially, by their American colleagues, to make the visit a pleasant and profitable one. He had been very favorably impressed by the character, the ability, and the position of homœopathic practitioners and of homœopathy in America; and he felt that a closer bond of union and a greater familiarity between the homœopathic practitioners of the Old and New Worlds would result from the Convention, and be a benefit to homœopathy, and its practitioners and patients throughout the world.

He was also glad to be able to say, that the Americans appeared inclined to enter heartily into the work of the Hahnemann Publishing Society. They had requested him to draw up a short account of its organization, its objects, and its work—past, present, and future—in order that they might understand how to act in reference thereto.

He submitted to his colleagues the account he had drawn up, and they approved of it, and hoped Americans would put their shoulders to the wheel and carry forward the work.

The following is an extract of a copy of this document:

The Hahnemann Publishing Society.—This Society has been established in England on the model of the Sydenham Society; that is, it is composed of members who pay a guinea subscription, and for this they receive a guinea's worth of books, or other printed matter, at about cost price.

Its objects are: The publication of English, and the translation of foreign, well-arranged practical homœopathic works, which, though essential to the English homœopathic practitioner, are expensive to print, and of so limited a sale as to deter publishers from bringing them out at their own risk. See *Monthly Homœopathic Review*, viii, 458.

The *first* and most important work for a homœopathic practitioner to possess being a *pure Materia Medica*, the Society first addressed itself to this object.

Now, the essentials of a *pure* Materia Medica are that it shall be a record of the pure effects of the drug; and that they shall be recorded in the natural order of their occurrence, with the conditions, the concomitants, and the connections of the symptoms carefully maintained, so as to give a true picture of the morbid state producible by the drug. These essentials have been carefully kept in view in the preparation of the Materia Medica being issued by the Society—*The Hahnemann Materia Medica*—and it will be found that they have been strictly carried out with the five medicines already presented to the members; the groups of the symptoms have not been chopped up and dismembered as in other homœopathic Materia Medicas, but given whole and entire as they occurred. *This is, however, the only Materia Medica in which this plan has been followed.* See Introduction to *Hahnemann Materia Medica*.

The second most important work for the homœopathic practitioner to possess is a *complete and handy Repertory*, or index to these symptoms in the *Materia Medica Pura*; the Society therefore next addressed itself to this object. Now, the essentials of a complete and handy repertory are, that its arrangement shall be such that any symptom may be quickly found; and when, and wherever found, the symptom shall be complete, with all its essential connections, and with all its conditions and concomitants, and its locality distinctly and fully given, and yet the book itself be of such a size as to be easily handled. These essentials have been carefully kept in view in the preparation of the Repertory being issued by the Society—*The British Repertory*—and it will be found that they have been strictly carried out in the fifteen chapters already presented to the members. It may be said, it is impossible to give every symptom in the Materia Medica under all the separate headings of all its parts, of all its conditions, all its concomitants, all its connections, and all its localities, and yet “the book itself be of such a size as to be easily handled.” True, it had previously been found to be impossible; but this difficulty has been overcome in the *British Repertory*, and this has been done without interfering with the general usefulness or easy reference; it has been accomplished by printing in the ordinary type only the word looked for, and filling in all the other parts of the symptom in cipher; by this means the word looked for is found as in other repertories, but each time the *whole* symptom is filled in by ciphers, so as to be given in full each time, but to occupy only little space. Thus, if a *pain* be looked for it will be found in full in ordinary type, but the condition, the concomitant, and the locality are given in cipher; if the *condition* be looked for it will be found printed in full as usual, but the pain, the concomitant, and the locality are given in cipher; if the *concomitant* be looked for, it will be found printed as in other repertories, but the pain, the condition, and the locality are given in cipher; and so if the *locality* be looked for, it will be found printed in full, but the pain with its conditions and concomitants are given in cipher; hence each time any part of any symptom is looked up, the *whole symptom*, with all its natural connections, is presented to the eye of the practitioner in a very small space. And *this is the only repertory in which this is the case.* Speaking of this repertory, Dr. Constantine Hering says: “A number of real, *i. e.*, *well-educated physicians*, have performed the laborious task, with the evident intention of giving the homœ-

opathic practitioners a better work than any former, even in the German literature, and in a more concise form a repertory, which is more complete than any other. . . . This repertory might be the turning-point in the course of our art in England and here, and prevent the rapid 'going down' which has become apparent of late years."—*American Homœopathic Review*, 1858-9, vol. i, p. 518

Now, besides the indications for the use of drugs presented in their pure effects on the body and mind, there are an immense number of very useful indications derived from the *usus in morbis*; and though these "clinical indications" should be carefully excluded from the *Materia Medica*, and the Repertory thereto, they should not be neglected. The Society has, therefore, addressed itself to the collecting and arranging of these in repertorial form, in the *therapeutic part* of the British Repertory. The British Homœopathic Society has given a grant of £100 towards the expenses of this work.

The benefits of forming a society of this kind are, that a fund is provided to meet the expenses of publication, the works are published as economically as possible, and they are supplied to the members without trouble to them, and at about cost price; thus, books sold to non-members at 18s., are sold to members at from 9s. to 15s.; those sold at 7s. for 5s. 6d.; those at 4s. for 2s. 6d., and so on. It is earnestly hoped, therefore, that every homœopathic practitioner will join the Society, because, to carry out its objects, and fully to reap the advantages it offers, and to enable it to pay for the work done for it, it is necessary that the number of its members should be large.

Let it, however, be remembered that it is not only members that are wanted, but it is *workmen*; indeed, the funds are in excess of the demands for them; it is workers that are wanted, and it is earnestly hoped that not only will members suggest works for the Society to publish or translate, but that they will themselves also assist in completing the *Materia Medica*, the Repertory, and the Therapeutics work of the Society. The work offers choice calculated to meet the tastes of all: there is *materia medica* work, which will suit those who have a taste for the real groundwork and science of homœopathy; there is repertory work, which will suit those who delight in truly symptomatic treatment; and there is the clinical work, which, as well as suiting those who delight in keynotes, will also offer an opportunity to the older practitioners, whose long experience has taught them many very valuable clinical indications.

These three spheres of work are confided to three committees: I. The "*Materia Medica Committee*," of which Dr. Dudgeon is convener; II. The "*Repertory Committee*," of which Dr. Drysdale is convener; III. The "*Therapeutic Committee*," of which Dr. Pope is convener; and all work presented to the Society is finally submitted to IV. The "*Printing and Publishing Committee*," composed of the President, Vice-President, and the Treasurer and Secretary.

There is a wide range of work, and that every homœopathic practitioner of any ability may find something to do to help on the art by which he lives, and by which he wishes to build up a name and fame. We say to all—old and young, English, American, German, and French, and, indeed, to every homœopathic practitioner in the world—to every one who lives by homœop-

athy, or loves our noble science—to all we say, Help us. To each one we say: Will you undertake to collect and arrange the symptoms of one of the well-proved drugs? If you will, write to that effect to the Convener of the *Materia Medica* Committee, Dr. Dudgeon, 53 Montagu Square, London. Will you undertake one of the remaining chapters of the *Repertory*? If you will, write to that effect to the Convener of the *Repertory* Committee, Dr. Drysdale, 36A, Rodney Street, Liverpool. Will you undertake to collect and arrange the clinical, non-pathogenetic indications for the treatment of any particular disease? If you will, write to that effect to the Convener of the *Therapeutic* Committee, Dr. A. C. Pope, 2 Pinsbury Circus, London. The Society is not limited, however, to these three spheres of labor, but is prepared to publish other original or translated work approved of by the Printing and Publishing Committee.

Note to our American Colleagues.—To you we earnestly appeal. To you we say: Join us, help us. The Society's work is not British; it is homœopathic, and intended to meet the necessities of homœopathic practitioners all over the world, and its completion will do much towards perfecting our noble art. and rendering it capable of being practiced with accuracy and certainty. The work requires your help. America has many young, energetic, enthusiastic, and capable practitioners and students well suited to the work, and the work offers choice to all. Send your name and subscription, about \$5.75, to the Secretary, and mention the work you will undertake.

Signed, on behalf of the Society,

RICHARD HUGHES, L.R., C.P., *President*.

HERBERT NANKIVELL, M.D., *Vice-President*.

JOHN W. HAYWARD, M.D., *Treasurer and Secretary*.

Reviews and Bibliographical Notices.

A Treatise on Diseases of the Eye, by Henry C. Angell, M.D., fourth edition. New York and Philadelphia: Boericke & Tafel.—The *British Journal of Homœopathy*, the *Monthly Homœopathic Review*, the *Homœopathic World*, the *New England Medical Gazette*, and the *Ohio Medical and Surgical Reporter*, one and all, give very favorable opinions of Angell's treatise. It is a subject of which the editor of the *North American* understands little or nothing, and he acknowledges himself unable to judge of the justice of the paper handed to him by one who made Ophthalmology a study. We give it for what it is worth, for just criticism will never injure a good book.

His glossary sadly needs revising. His definitions are very inaccurate and incomplete, and would readily mislead any practitioner, except he be a specialist.

In his preface, quoting from Baehr's *Therapeutics*, by Hempel, he says: "We confess, without hesitation, that there is no section of our *Materia Medica* less useful and less adapted to homœopathic treatment than the symptoms referring to diseases of the eye." It is singular that he should have fallen

into this error—for error it is—since as a specialist, he has ample opportunity to prove the contrary to be true.

What could be more homœopathic than *Silicea* in *fistula lachrymalis*? It cures, and spares the patient an operation. What more homœopathic than *Belladonna* in *hyperæsthesia of the retina*? It cures, and once more renders useful a very irritable eye. What more homœopathic than *Causticum* in any form of paralysis of the eye; take, for instance, *paralysis of the accommodation*, following diphtheria? What more homœopathic than *Lycopodium* in *hemeralopia*? It produces and it cures this condition. What more homœopathic than *Merc. corrosivus* in *retinitis albuminurica*, or than *Lachesis* in *retinitis apoplectica*? And where did these symptoms come from, except from the provings? If not obtained from the eye direct, corresponding symptoms were obtained in other parts of the body—*e. g.*, hæmorrhages from *Lachesis*. And, if not obtained from the eye direct, it does not argue that the symptoms did not occur in the eye, but merely that the prover was not a specialist, and hence failed to note the ophthalmoscopic symptoms. Pray let such a sentiment be erased from our literature.

Whilst we can heartily commend his remarks upon the physiology of vision, we are compelled to say that his anatomy of the eye is sadly deficient. He does not devote sufficient space to the subject. He designs his book for students, yet in a very important branch he would leave them almost wholly in the dark, except they had previously become familiar with the minutæ in Stricker, in Frey, or in Metz. This is a grievous omission.

For instance, who could understand the Zonule of Zinn from his description? And how can it be a “transparent tissue from the hyaloid, or investing membrane of the vitreous,” when *there is no hyaloid*?

And how could any one understand the secretion of the aqueous humor, from the *three lines* which he devotes to it?

His anatomy of the eyelids is too much curtailed, and is very unsatisfactory, especially where he falls into the old and popular error of designating the *tarsus* as a *cartilage*.

From his description of the capsule of Tenon, one would suppose that he really knew nothing whatever of the subject upon which he writes. To wit, he says: “The Tenonian capsule is a smooth, fibrous membrane, having its origin in the sclera, in a circle posterior to the equator, near the entrance of the ciliary nerves, so that, posterior to this, is a free space on the sclerótica, in the centre of which is the entrance of the optic nerve. Anteriorly, this capsule loses itself in the conjunctiva, near the cornea.” When in reality, as every anatomist is aware, the capsule of Tenon commences at the optic foramen, and, loosely embracing the optic nerve, the sheath expands, and passes on to the eyeball, which it incloses like a capsule. It is loosely connected with the sclerotic by connective tissue—so loosely, indeed, as to allow of the free rotation of the globe within it. At the equator of the eyeball it is pierced by the tendons of the oblique muscles, and more anteriorly by the tendons of the four recti muscles, with which it becomes blended; being finally lost on, rather than inserted into, the sclerotic, close to the cornea. The posterior portion of the sheath, up to the passage of the tendons, has been

called the capsule of Bonnet; the anterior portion, from the passage of the tendons to its insertion in the sclerotic, having been designated the capsule of Tenon.

Any casual reader can observe the marked differences between these two descriptions, and further comment is unnecessary.

In his article on the objective examination of the eyes, he speaks of testing the *tension* by gentle pressure with the forefinger. Is he aware that in order to accurately ascertain the degree of tension we must invariably use *two* fingers upon the one eye, and make pressure with them alternately? And if he is aware of it, why does he not say so, and not leave one in the dark?

His article upon "Bandaging the Eye" sadly needs revising. We would defy any surgeon to follow his directions, and successfully bandage an eye after an operation.

In speaking of the ophthalmoscope, he says, "With a bit of common window-glass we can fulfil these two conditions," *i. e.*, illuminate the fundus and also catch the return rays. Does he mean this? Or does he mean with a bit of *looking-glass*, with a small central spot of amalgam erased through which to look? With the former he would *utterly fail*, while with the latter he would have a very good home-made ophthalmoscope. Why make such grievous errors, and thus mislead and discourage beginners?

On page 22 he says, "It must be remembered that if we use the convex object-glass we get an *indirect* or *inverted* picture of the fundus, and without the interposition of the object-glass we get a *direct* or *upright* image." We would ask him how it is, then, that in examining the eyes of a myope *without* the object-glass, we get an *inverted* image? Let him rectify this sentence.

Calling his attention to page 28, we would ask him to verify his remarks, and give us the differential diagnosis between meningitis, encephalitis, hydrocephalus, epilepsy, insanity, locomotor ataxy, and nervous fevers, from the ophthalmoscopic symptoms alone.

His article on page 34, entitled, "How accommodation of the eye is effected," is *most lame* throughout. Not only are his statements incorrect, but they do not even sufficiently approximate the truth to convey to the mind of any one a proper conception of the simple mechanism of accommodation. In very truth, accommodation is *not* "brought about by the action of the ciliary muscle upon the crystalline lens," but by the action of the ciliary muscle upon the *ciliary processes*. As the muscle contracts these processes are lifted off from the Zonula Zinnii, and allow it to relax, thus diminishing the tension upon the lens, and permitting it to expand and become more convex. It is thus that the anterior surface of the lens moves forward by virtue of its own *elasticity*. It is *not* "*pushed* slightly forward," as he states.

His "distinction between refraction and accommodation" could be remodelled so as to make it far more intelligible. Suffice it to say that *refraction* is that passive power which every normal eye possesses, when in a state of rest, of bringing parallel (distant) rays of light to a focus on the retina. *Accommodation* is the active power inherent in every normal eye, by which it adjusts itself quickly and almost imperceptibly for different distances, and accurately focusses upon the retina at one moment the parallel rays from distant,

and again the divergent rays from near objects. This power is resident in the ciliary muscle, but not by its direct action on the lens.

Hence in myopia the parallel rays (from a distance) are focussed before they reach the retina, by refraction alone, and no amount of relaxation of the accommodation can flatten the lens sufficiently to overcome this, owing to the abnormal elongation of the antero-posterior axis of the bulbus; whereas the divergent rays of near vision are readily focussed with very little effort of the accommodation.

In hypermetropia (with a *shortened* antero-posterior diameter) parallel rays are focussed readily, or with a very slight effort of the accommodation; whereas for the divergent rays of near vision a much greater effort of the accommodation is required than is requisite in the emmetropic eye, in order that the lens may become sufficiently convex to accurately refract for the shortened distance.

In presbyopia (simplex) the refraction is perfect for distance, but is impaired for near vision, because the powers of accommodation are insufficient for the requirements. This arises from one or both of two causes: (1.) Partial or complete paralysis of the ciliary muscle; and (2.) Hardening (with age) and want of elasticity in the lens substance.

How can he say, on page 41, in reference to sclerotico-choroiditis posterior, that the irregular deposit of pigment, the exudation into the vitreous, and the final separation of the retina, are all owing to the atrophy of the choroid? He is simply wrong. For the patches of pigment are *not* deposited (being already there, but more diffuse), but are due to the fact that the pigment is pushed along the fibres of connective tissue, which is stretched and torn by the bulging until it becomes gathered in these irregular masses around the margin of sound choroid. The exudations into the vitreous cannot be caused by atrophy of the choroid, when *both* arise from the *choroiditis*, which is primary.

The final separation of the retina is caused (1) by the continually increasing bulging of the eyeball, which tears it asunder, or (2) by the exudation, which forces it from contact with the choroid.

His article on myopia we can commend. It contains all that would be required by the student or general practitioner (for whom the work is designed), and is also sufficiently plain to not require elucidation. We hold, however, that he should modify his statements about the termination of myopia, since his book is one which is liable to be read by the laity, and those few words could occasion a great deal of mischief.

We take direct issue with him in his treatment of asthenopia muscularis. And we call on him to expunge from his work the recommendation to divide the recti externi, if glasses will not cure the weakness of the recti interni. We possess in electricity, and in the remedies Caust., Ruta grav., Nat. mur., Bry., and Lach., together with the proper glasses, *all the elements of cure*. Let him try them all before he severs the rectus externus.

And again, if the pathological necessity arises, bring forward the insertion of the internus; but never sever the externus for asthenopia, notwithstanding that Wells also recommends it. Also, in some one or more of the remedies above named, can always be found the controlling genius in asthenopia accommodativa, especially if used in conjunction with electricity.

In speaking of hypermetropia, he says, "If the hypermetropia is thirty-six, I prescribe a convex glass of thirty-inch focus; if it is fifty, glasses of about forty-inch focus, and so on." Now this is a woful mistake, as he will discover if he ever tries it upon himself. The eyes would tire dreadfully under such treatment, and (if the degree of hyperopia was slight) would be of less service for near vision *with* than *without* the glasses. He will find patients with a manifest hypermetropia = $\frac{1}{36}$, and yet requiring only a plus sixty to read and sew by. But they will absolutely need a sixty, and with it they can use their eyes by the hour without tiring. A stronger glass could not be used. Therefore, according to his prescription of a *plus thirty*, based upon the manifest hypermetropia, he would rapidly increase the hyperopia, early develop presbyopia, and literally ruin the patient's eyes. Especially if the patient is young should the weakest glass be prescribed with which they can read with comfort—both Wecker and Angell to the contrary notwithstanding. And furthermore, in many cases of (apparently) manifest hypermetropia, the patient, upon thorough testing, is found to be able to read $\frac{2}{3}$ with either plus or minus (say $\frac{1}{36}$), and with equal facility, the eye being in reality *emmetropic*, with great play of the accommodation. There may, however, exist slight asthenopia accommodativa, causing fatigue and lachrymation upon prolonged use of the eyes at reading or sewing. *Weak* glasses, electricity, and appropriate remedies, quickly render serviceable again such eyes. How manifestly injurious, then, to furnish these patients with strong glasses, simply because of their manifest hypermetropia and ability to read with stronger convex glasses. This point has not entered at all into his calculations, and he is not the only oculist who has overlooked it.

His article on astigmatism is good, so far as it goes, but is not sufficiently explanatory. We would defy any one to successfully treat a case, and at the same time know what he was doing, if he should gain his knowledge from no other source.

In treating of conjunctivitis granulosa, he makes no distinction between papillary trachoma and the true neoplastic formations. Does he recognize any difference? And does he assume—as his article would imply—that the treatment should be the same in either case? If so, he errs.

His various articles upon the different forms of conjunctivitis are good, except wherein he refers to treatment. Why does he not give us the indications for the different remedies he names? How are we to know when to use them? He places too much stress upon topical applications. And although he speaks of Acon., Sulph. (which are really two of the leading remedies in these affections), Hepar., Merc., Arg. nit., Merc. nit., Ars., and Cham., he makes no mention whatever of Pulsat., Euphr., Graph., Nat. mur., Rhus, Arn., Kali bi., and Aurum, all of which we think he will find very useful and necessary remedies in the treatment of these affections.

And in the management of keratitis, he also omits to mention many of the above important remedies, without the aid of which he would be unable to successfully treat a variety of cases. And in addition to the above should also be named Nux and Conium.

He says, "It has been found serviceable sometimes, when an ulcer threatens perforation, to anticipate the rupture by puncturing it with a fine needle."

Now this may in some instances prove efficacious, but we doubt its complete curative influence in any case. Let him, on the other hand, employ Saemisch's operation of cutting entirely through the ulcer (and some sound tissue also) from the anterior chamber outward, when he will get in *every* instance a perfect and rapid healing, and also succeed in saving intact the other tissue of the eye. This mode of treatment is applicable both for the perforating and the indolent hypopyon, or "Ulcus serpens corneæ," of Saemisch.

We question his use of the term "leach," on page 121.

When treating of iritis, why does he not lay more stress upon the landmarks by which we may readily and quickly recognize it, and make our differential diagnosis? For upon a correct diagnosis largely depends the line of treatment, and possibly the cure. And when speaking of the remedies, why not include Cedron, Terebinth, Arnica, Rhus, Thuja, Aurum, Assafœtid., and Cinnab., and give us the special indications for each remedy?

In prolapse of the iris, great care must be taken not to bruise nor lacerate the iris in any endeavors to replace it, as iritis will almost certainly ensue. And any endeavor to push it back is very liable to injure it. Therefore if a strong solution of atropin fails to pull it back in good season, the invariably safest method is to snip off the protruding portion with a pair of sharp scissors. He is not sufficiently direct upon this point, and hence many practitioners might be misled into endeavoring to *push back* a bead of iris, much as they would an entero-epiplocele, and thus set up a dangerous iritis unawares.

In treating of mydriasis, he says, "I cannot define any particular plan of treatment," and names only Calabar bean as a "reported" remedy. We can recommend to him Rhus, Caust., and all the Kali series, Bell., Arn., and the Mercurials.

In myosis, where he names no remedies whatever, we can suggest (but merely suggest) Cimicif., Arg. nit., Phos. acid, and Picric acid.

We shall live in the hope that he will give us more elaborate and lucid "*ophthalmoscopic signs*" of choroiditis disseminata, that we may be enabled to diagnose this affection when we meet with it in our practice. After naming a number of remedies useful in the treatment hereof, he says, "My experience has not enabled me to fix upon definite and reliable indications for the selection of one of these drugs in preference to another, as far as eye-symptoms are concerned." If we should keep records of our cases, would we not learn something every day?

Now, aside from the concomitant symptoms which would doubtless accompany, and when present would always confirm the selection of the drug, what more "reliable indication" for Arsenicum could be found than *dryness and burning* in the eyes, with great œdema of the lids; for Sulphur, than *heat and itching*, worse from rubbing, and dread of washing; for Bellad., than hyperæmia and hyperæsthesia of the retina, shifting neuralgias and throbbing pains in the eyes—all aggravated about 3 P.M.; for Conium, than an intense photophobia, out of all proportion to the extent and character of the inflammation; for Nux., than morning aggravation, with photophobia and swollen lids, patient burying his head in the pillow in the morning, and yet can see perfectly well in the afternoon.

Still, he would never be called upon to prescribe any one of these drugs from the eye-symptoms alone. Collateral symptoms could always be found which would assist him. He would not think of always prescribing Nux for stomachache. He would first search for other symptoms; when the case might prove to be one calling for (say) Bryonia, Cham., Cimicif., or Colocynth.

His article on Glaucoma is excellent, and we can cordially commend it. Its style throughout is sufficiently clear to be readily understood, and it contains all that would be required by the general practitioner to enable him both to diagnosticate and to treat this dangerous disease.

In speaking of *Secondary Glaucoma*, he should say that although it "sometimes supervenes upon injuries of the eye, and more rarely from deep-seated disease of the globe," it is in no wise connected with these conditions nor resulting therefrom; but that the glaucomatous condition pre-existed, and its advent was only hastened (if affected at all) by the injury or disease aforesaid. We make this suggestion, since the casual reader might (and probably would) infer otherwise from the six lines which he devotes to the subject.

On page 180, eighth line, he should substitute *retinitis* for *iritis*.

We can also heartily commend his article upon Retinitis. We would be pleased, however, if he would devote more space to the ophthalmoscopic diagnosis. He certainly is on the right track in his recommendation of certain remedies for *detachment of the retina*. Let him keep on; there is a remedy.

His article upon Cataract is also very ably compiled, although it is incomplete without the *posterior polar* cataract, which he does not mention, and which springs from a persistent hyaloid artery. And he certainly would enhance the merits of the article if he should give a more complete and systematic description of the three chief modes of operating, viz., the old flap extraction, Von Græfe's modified linear extraction, and Liebreich's operation.

If we are to have a text-book, let us have one which can govern us all, and by which we all can be guided, and not all of us be compelled to send our patients to him for treatment and for operations.

In reference to paralysis of the muscles of the eye, he should either not treat of the subject at all, else should go more deeply into it, and not only state that in paralysis of certain muscles we get diplopia, but explain *why*. And also explain why it is that these double images always bear a certain relation to each other both in position and inclination.

In treating of Strabismus, which is a very common affection, and liable to come under the attention, and perhaps the treatment, of every practitioner, he certainly does the subject justice and himself credit.

In Blepharitis we again object that he relies too much upon topical applications, and not sufficiently upon the homœopathicity of our drugs.

He treats the subject of the lachrymal apparatus very ably and satisfactorily.

He does not devote nearly sufficient space to the subject of Sympathetic Ophthalmia. And this is a very important branch of Ophthalmology.

His Chapter XIX, on the indications of remedies, can be largely added to in nearly every remedy—just in eye symptoms alone. In fact, remodelling would here prove of vast benefit.

In regard to his Chapter XX, on test type, we would suggest that he adheres to the type of Snellen, which is very good at least, and try to encourage a uniformity in the types used by the profession in general. T. W.

Encyclopedia of Pure Materia Medica, by T. F. Allen, M. D. Volume IV. Cundurango to Hydrocotyle. New York, 1876. Boericke & Tafel.—The fourth volume of such an immense work in the short time of one little year. Our thanks are due to the indefatigable labors of the author and his assistants, for the promptness with which volume after volume appears, and that the Encyclopedia gains steadily in the estimation of the profession can be seen by any one who follows closely our literature. To my mind its greatest value consists that Prof. Allen does not put himself up as authority to judge of the value of a prover or of a symptom; he gives them as he found them, and the reader is left to his own judgment. Thus we find Houatt's proving in full, though separately given, and not thrown among old lumber, as Hale has flippantly done in the fourth edition of his *New Remedies*.

And this brings me to notice a remark made by the editors of the *Homœopathic Times*, that this Encyclopedia will rest on the shelves, whereas Dr. Hale's work will be ready on the table for daily reference and study. I have spoken to several physicians in large practice about it, and found out that Allen is with them also a book of frequent reference, inasmuch as they find only there those nice differential shades which to a close prescriber are the characteristics in his prescriptions. I confess I could and would not do without either of them. Heaven knows we are too often still in a quandary, where we need all the aids to rescue our patient from the dangers which surround him.

Fourth volume! Constantine Hering, good old father Hering, take an example from your younger colleague. Oh, how we thirst for the second and following volumes of your analytical therapeutics, for the second volume of *your own Materia Medica*, and you withhold from us the necessary pabulum, though the storehouse is crowded to repletion! The shadows of evening surround our life already; why hold back, why wait for more propitious times? We still trust that Hering's and Allen's works will soon rest side by side on the table of every physician of our school, and that they will not rest there, their own intrinsic worth is the best guarantee.

The Nasal Catarrh, etc., with Illustrative Cases, by Lucius D. Morse, M.D., Memphis, 1876.—Professor T. F. Allen published, in the fifth volume of the *American Homœopathic Review*, an exhaustive article on the physiology and pathology of the nasal passages, which has done, and still does, good service to all those physicians who possess a library of old journals; but we fear only a very small minority can pride themselves on such treasures, and we hail, therefore, with pleasure, the little treatise before us. It does not claim to exhaust the subject in question; it gives only cases illustrating the action of our remedies, and as such it is of the utmost value, for Morse is a reliable, painstaking physician. We cordially thank him, that he comes forth in the prime of his useful life and gives us his experience, yea, his ripe experience, now, and does not wait, like so many of his seniors, till it is too late.

A dollar, a single dollar, cannot be spent with more benefit than by buying and digesting this book. Apply its teachings conscientiously, dear reader, and you will be repaid a hundredfold.

A Contribution to the Treatment of Uterine Versions and Flexions, by Eph. Cutter, M.D., Boston, 1876.—The *Medical Press and Circular* remarks: "This is an excellent pamphlet on a difficult subject, enriched with many diagrams of the uterine organs and the pessaries recommended by the author. We do not remember to have seen a clearer exposition of the subject in any work, and can heartily recommend this for perusal."

Such a short criticism certainly fails to give Dr. Cutter all the credit which he deserves, for it does not touch the best part of the work. In reading this contribution we are constantly struck how much power the Doctor allows vital force to possess, and still in all his treatment he only relies on mechanical support. We rather believe with Dr. Skinner, for so many years an assistant of Simpson, and now for the last two years a strict adherent of homœopathy, that if uterine versions and flexions are caused by an aberration of vital force, there must be, yea, there are, dynamic forces which will regulate this aberration, and bring back the organs to their normal state.

The prevalence of these diseases is the necessary punishment of our mode of living, and we consider underwork far more to blame than overwork, and it is many a time a riddle to me how these ladies, for they would feel highly offended if you call them women, pass day after day, month after month, and year after year in constant idleness. The reform in dress is another necessity, and it is the duty of the male sex to make a laughing-stock of such unphysiological as well as unbecoming dress. That is, after all, what women dress for, to please the eye of the other sex, and if man would only advocate it, a common sense dress, it would have more weight with the gentler sex than all the reform movements carried out by women. We like the Doctor's bill of fare, there is no danger of starving; but what else should my lazy, delicate lady do the whole day, but suck candy, munch caramels, and live on lady's fingers. Do you, grizzly bear, wish them to live on brown bread or Dutch rye? do you wish to kill them with your beans and peas? And, after all, they would be far better off, and our children would be far better off, if such hygienic rules were known and carried out throughout the length and breadth of the land.

Send a copy of this essay to every woman, and you may consider yourself a benefactor to mankind. Give us healthy mothers, and healthy children will be the joy and the pride of their parents.

Microphotographs in Histology, Normal and Pathological, by Carl Seiler, M.D., in conjunction with J. Gibbons Hunt, M.D., and Joseph G. Richardson, M.D. Philadelphia: J. H. Coates & Co., Publishers, 822 Chestnut Street.—We are in full sympathy with the design of this publication, the purpose of which is to furnish standard specimens of normal and pathological tissues as they appear when microscopically examined.

This work will be of value to the physician who, having learned to use the

microscope, has not had the opportunity of studying the morbid variations which occur in the several tissues and organs. From these micro-photographs he will learn to diagnosticate pathological growths when seen by him for the first time. To him who has not enjoyed the advantages of the laboratory study of histology this series will be simply invaluable.

But the value of Dr. Seiler's work is by no means confined to the uninitiated; on the contrary, it will be welcomed by every expert as a most desirable addition to his working library.

The micro-photography is on the whole acceptably done, and a few minor defects may be expected to disappear as the work goes on and the artist learns to more completely hit the actinic focus.

The series is published monthly at \$6 per annum, or at 60 cents per number—a price which brings it within the reach of all.

A Manual of Pharmacodynamics, by Richard Hughes, L. R. C. P. Ed., third edition.—How much more interesting is to us a book, when we know the author personally, and in Hughes's personality we were not disappointed. He is the same open-hearted Briton, as he shows himself in his writings, and, equally so, the more we read or know him, the more we like the Doctor.

The *Manual of Pharmacodynamics* appears now in its third edition, as the author says, mostly rewritten, and we welcome it again, as we did its former edition; in fact, we do not know how we could do without it. Dr. Hughes will kindly forbear with us, when we call the *Pharmacodynamics*, as well as the *Therapeutics*, the A B C books of the homœopathic school; and there is no work extant which you can give with so much confidence to an allopathic practitioner, desirous to study the intricacies of the homœopathic *Materia Medica Pura*. Some will say, give him Hahnemann's *Organon*, and he will be convinced of his errors. I have not found it so, and several of my old-school friends read the *Organon*, and it made them firm adherents of the expectant school; as one said to me, "I give now *Extractum graminis* and *Dectoctum althææ*; you give sugar pills; what is the difference? *Mundus vult decipi, ergo decipiatur.*"

As the fighting plan did not succeed, I changed my course, and advised the study of the *Pharmacodynamics*, and I find that our adversaries take more kindly to it, and in fact they do not find themselves immediately in such deep water as when you try to drown them with the trilogy of Jahr or, worse yet, with the multilogy of Allen.

Taken from this standpoint, Hughes's *Pharmacodynamics* fills a niche in our literature for which we have no other work; and even in our collegiate course I find that the first-class students master this little compendium easily; the transition to Lippe's *Text-Book of Materia Medica* comes naturally, and they are not becoming bewildered by contradictory symptoms. Allen's *Encyclopedia*, containing everything found in Hahnemann's *Materia Medica Pura* and *Chronic Diseases*, is then a welcome present to our graduating class; for now they are imbued with the spirit of strictly individualizing, for which such a work as a symptom-codex is necessary, and neither quality nor quantity can frighten them from the arduous task to benefit their fellow-men, *cito, tuto et jucunde*.

“Rewritten,” says the author; and thus he acknowledges its imperfections, and we hope that Dr. Hughes will have the opportunity to rewrite it yet many a time till, freed from imperfections, even its enemies will hail it as a text-book for the primary studies of our *Materia Medica*. Let this distinguished author take kindly to the critical reviews, which will appear from time to time in our journals; let him be assured they are not written in a spirit of fault-finding, but rather that by united efforts our literature may be perfected.

God speed to all your lectures at your hospital in London. In lecturing we find out our defects; we improve upon them season after season. Onward, steady onward, till finally the goal is reached, and homœopathy accorded its rightful place among its sister sciences.

Transactions of the Twenty-eighth Session of the American Institute of Homœopathy, 1876. — *Quality, not quantity*, makes itself felt in the volume before us, and we are glad that the law of the Institute restricts the Publication Committee to the special subject selected by each bureau. It is true that many a valuable paper will be excluded, especially as the resolution of June 12th, 1874, forbids its publication through any other journal, and it seems, therefore, that another change is thus made necessary, or perhaps the liberty, which this year the Publication Committee took, ought to be legalized, and any paper, which cannot appear in the *Transactions*, ought to be handed back to its author, so that he can act with it according to his pleasure.

The reproof of *Sepia* is of immense value, inasmuch as we have here the testimony of ten ladies; the mental and genital symptoms are of great value, especially as they correspond so well together, and it ought to stimulate the members of the Institute to enrich our *Materia Medica* year after year by such a reproof of our polychrests. The Bureau of Clinical Medicine elucidated diabetes and Bright's disease, and we hope none of our readers will neglect to peruse the excellent paper of Dr. Holcombe. May we not hope to see Dr. Beckwith's paper, a patient alternately blind and deaf and dumb, in one of our journals. It was listened to with great interest, and certainly is worth preserving.

We may well be proud of our Committees on Surgery and Ophthalmology, and we feel glad that so much space was granted to them. These papers compare well with those published by any allopathic society, for they give us the science and art of surgery plus homœopathy. I am nearly ready to say that Prof. Sanders, of Cleveland, has contributed the best paper in the *Transactions*; lucidly has he portrayed to us our duties during the third stage of labor, and the management of the placenta is thus freed from much which to many might have appeared obscure.

We sincerely hope that the “Publication Committee of the” World's Homœopathic Convention will use their right with some strictness, for even papers sent from abroad may either be too unwieldy for publication, or not be of such value to deserve a place in the *Transactions* of 1876. Give us less quantity and all quality, so that even future generations may examine with just pride our Centennial transactions.

It was certainly a mere oversight by the members of the Institute, as well as of the World's Convention, to forget tendering the usual resolution of thanks to our indefatigable general secretary, Dr. McClatchey. But we all consider him and Kellogg fixed necessities of the Institute; we do not know how we could get along without them, and perhaps this unlimited confidence in their abilities, and in the performance of their respective duties, is the most decided vote of thanks which they could desire.

Transactions of the Pacific Homœopathic Medical Society of California, 1874 to 1876.—There is a German drama, by Lessing, called "Nathan, the Wise." In that play the Sultan asks Nathan to tell him which religion is the only true one, the Mohammedan, the Christian, or the Jewish religion, and Nathan tells a story in reply. There was a rich merchant, who owned a jewel of great value, and at his deathbed he called his three sons, one after another, to his bed, and each one received with the paternal blessing the fac-simile of that jewel. After his death each of them considered himself the successor of his father's estate, and in order to settle their claim they laid their case before the judge. There they were, the three jewels, exactly alike, and neither judge nor jury could decide of the genuineness of either. "Don't you see, my children," said the judge, "that your father loved you all alike, and that his last wish was that you may live in peace and harmony together?"

Thus it is also not for us to decide whether this Pacific Society or the State Society of California is the genuine one. Oh, that they would quit their mutual vituperations, and live in peace and harmony together. Who of them all, in either society, can put his hand on his heart and say he never has done anything wrong professionally? If report is true, this malignity, unbecoming the true physician, cuts either way, and many a time have I been solicited by families, formerly used to homœopathic practice, to take up my residence among them and become their physician, for, said they, there is not a decent homœopathic physician in San Francisco, if everything is true what they say one of another. It would be an easy matter, in that liberal city, to raise funds enough for a homœopathic hospital and dispensary, but people are right in withholding their subscriptions, as long as they find themselves surrounded by a class of physicians whose greatest glory consists in belittling and besmearing one another.

But, after all, in both societies are physicians enough, who are far better than they are shown up by their colleagues; and we are happy to say that we found many a true, and honest, and upright physician on the Pacific coast. Again we beg them, in the name of homœopathy, and in the name of that great command, "to do unto others as you wish that others shall do unto you:" to join hands in brotherly love, to work harmoniously together; and may God bless them then in their works for the relief of human suffering.

We are really sorry to see that in their publications they again parade their dirty linen before the public, and thus injure the publication of their transactions in the eyes of an impartial critic.

Let us rather turn to the scientific aspect of the little book, as it is more satisfactory. We find in the articles of Dr. Liliencrantz, the painstaking and careful obstetrician, and we are glad that with many other physicians he does

not consider any more the forceps the last resource, and all will agree with the Doctor, when he so tersely remarks, it is one of the prime virtues of a medical practitioner to know when to interfere and when to leave alone.

Dr. Pease seems to be the hard-working man of the Society, and a good surgeon, which his critic is not; but we can assure him that the application of colored glass as a therapeutical measure finds more and more application, especially in lunatic asylums, and it will soon be considered one of the great boons which recent medical literature has developed, and therefore if Dr. Pease was the first on whom the idea dawned to make such practical use of colored glass, he ought to claim priority for it. Honor to whom honor is due. Selfridge, of Oakland, contributes a new apparatus for fractured clavicle, and an article on intussusception, which fully deserve our attention, for it demonstrates that, "with the mechanical and medicinal remedies known to our art, *early, intelligently, and persistently* applied, we are able to reduce the great mortality not only of intussusception, but also of other severe diseases."

Our space forbids us to pass before our readers all the papers contained in the *Transactions*. Their value consists in being *practical* and *short*. We thank the members of the Pacific Homœopathic Medical Society for the treat, and with the most heartfelt solicitation to bear in mind that *in unity is strength*, we bid them "God speed to the good work of spreading practically the doctrines of our Hahnemann."

Annals of the British Homœopathic Society. London: N. Turner & Co., 1876.—In comparing the *Annals of the British Homœopathic Society* with the *Transactions* of our Pacific (?) physicians, or even with those of the American Institute, we are sorry that our British cousins carry away the prize. Their essays show greater learning, more thorough education; in fact, they show that there is a reading public on the other side of the Atlantic, and that they digest what they read. Dudgeon and Bayes are always interesting, and we are sorry that Pope has just cause of complaining of the many physicians who withdraw themselves from social intercourse with their fellow-physicians. We especially miss such honored names as Wilson, Skinner, Berridge, and it seems to us that our Hahnemannians too often try to become clannish, instead of trying to instil the beauty and certainty of our high potencies in the minds of their doubting confrères. Carfrae on uterine diseases, and Blake on leucorrhœa, contributed papers worth preserving, and the discussions on them showed that when Carfrae attacked Guernsey's keynote system, men like Blake, Hughes, Roth, Leadam, Drury, and others came to the defence, and showed the applicability of the remedies mentioned by Guernsey to the disease in question. Croucher's essay on tetanus is more than lame, and Wyld, as well as Dudgeon, proved that the case was not true tetanus; and Hewan plainly remarks, that among the many remedies prescribed he has failed to find out which one, if any, was specially of use.

It is always a pleasure, when laying aside a book, we can say we learned something from its perusal, and the *Annals* of 1876 stand this test. We may learn from our English cousins that it is far better to issue only a small volume, but one of intrinsic value. Quality, not quantity.

APPENDIX.

The Homœopathic Therapeutics of Vertigo,
Dizziness, and Giddiness.

BY W. EGGERT, M.D.

ALTHOUGH vertigo, dizziness, or giddiness are only symptoms accompanying usually a deepseated, general, or local disorder, they assume, nevertheless, frequently such an importance and preponderance in a long train of other symptoms that the physician's *special* attention will be directed towards it. In such ailments, the symptom has often been our guide and waymark in completing a cure of the most inveterate chronic cases; hence the arrangement of the following repertory. We consider vertigo, dizziness, or giddiness nearly identical, and the existing difference is only one of degree.

VERTIGO. DIZZINESS. GIDDINESS.

TIME OF APPEARANCE.

- Morning.* Agaric m. Alumina. Amm. c. Argt. nitr. Borax.
Bovista. Calc. c. Cinnab. Conium. Dulc. Formica.
Hep. s. Kali c. Kali nitr. Kreasot. Lach. L. V.
Deflor. Magn. c. Hyper. Magn. m. Natr. m. Niccol.
Nitr. ac. Nux v. Oleander. Phos. Rhus tox. Ruta.
Sarsaparilla. Scilla. Sulph. Tellur. Tarantula.
- early in the.* Agaric. m. Bovista. Calc. c. Kreasot.
Magn. c. Nitr. ac. Ol. an.
- on awaking.* Caustic. Dulc. Hyper. Niccol.
- rising from bed.* Acon. Coccul. Conium. Hipp. m.
Lach. Magn. c. Magn. m. Natr. m. Nitr. ac. Nux
v. Phos. Ptelia. Rhus tox. Ruta. Sepia. Sulph.
Tellur.
- rising from bed and sitting, he falls over immediately, and is
afraid to rise again, lest the same trouble should recur.*
Acon.
- rising from bed and walking.* Natr. m.
- attempting to rise.* Formica.
- after rising.* Calc. Cinnab. Lach. Magn. c. Natr.
sulph. Phos. (unto falling). Tellur.

Morning, after drinking coffee. Nux v.

after dressing. Formica.

when in bed. Borax. Conium. L. V. Deflorat. Natr. m.

Nux v. Ol. an. Paeonia. Phos.

when dressing. Tellur.

when standing. Kali nitr.

till evening. Amm. carb.

Forenoon. Ptelia. (has to lie down).

Noon. Phos. (before or after dinner).

Afternoon. Benz. ac. Calc. c. Hyperic. Psorin. (after dinner).

Puls. (after dinner). Sepia. Sulph. Zincum.

Evening. Amm. c. Apis. Ars. Bell. Brom. Carbo an.

Cyclamen. Hep. s. Hydrast. Kali c. Lach. Merc.

Niccol. Nitr. ac. Nux j. Nux v. Petrol. Phos.

Phos. ac. Plat. Puls. Sanguin. Sepia. Sulph. Zinc.

when closing the eyes. Arsen.

when raising the head after lying down. Crocus s.

when sitting and sewing. Magn. c.

when or after lying down. Apis. Ars. Aurum. Brom.

Cyclamen. Formica. Magn. c. Merc. Nux m. Nux

v. Petrol. (with nausea, especially if the head lies low).

Puls. Rhodod. Sanguin. Staphy. Zinc.

Night. Amm. c. Crocus sat. Hyperic. Sanguin. Sarracenia.

Spong. Theridium. Triosteum.

when lying down. Sanguin.

when waking. Spong.

Midnight, when rising. Triosteum.

SPECIAL LOCATIONS.

Eyes, apparently felt more in the. Liliun.

Forehead. Arnica. Crocus sat. Evonymus. Oleander.

Forepart of the head. Evonymus.

Occiput. Apis. Glonoin (followed by pain in vertex). Petrol.

(left side). Phos. Ranuncul. bulb. Zinc.

and temples. Apis.

with sensation as if falling. Petrol.

DIRECTIONS.

Ascending from the back or nape of the neck. Silic.

Ascending from the stomach, as if. Kali. c.

Commencing in front of the ears and passing up to the vertex, like a wave, lasting but a few moments. Salicy. purp.

From occiput to sinciput like a wave. Senecio.

CAUSES, CONDITIONS, AND CIRCUMSTANCES UNDER WHICH IT MAY OCCUR.

When: When in: When at: After: From:

Abscess of the liver. Theridium.

Age, old. Compare atrophia of the brain. Alumina. Ambr. gr. Aurum. Calc. ph. Conium. Iod. Opi. Phos. Plat. Rhus tox. Secal. cor. Sulph. Verat. alb.

Abdominal plethora. See: Concomitants; abdomen.

Anæmia. Ambr. gr. Baryt. c. Calc. c. Chelidon. Ferr. Fluoric ac. Graph. Lycopod. Phos. Phos. ac. Silic. *Apoplexy, tendency to.* Acon. Arnica. Bell. Calc. c. Carb. v. Gels. Glon. Natr. m. Nux v. Opi. Verat. alb.

Ascending on high; going upstairs. Aloe. Arsen. Borax. Calc. c. Conium. Euphorb. Digital. Phos. Silic. Sulph.

Atrophia of the brain, in aged people. See: Age. Phos. Plat. Rhus tox. Verat. alb.

Awaking in the morning. See: Time of appearance; morning when awaking.

Bed, when in. See: Time of appearance; morning when in bed.

Bending the head backward. Glon.

Bending the head forward. Merc.

Breakfast. See: Eating. Gelsem. (one hour after). Sulph. Tarantula.

Cancerous tumors of the neck. Calc. c. Phos. Silic.

Chlorosis. Coccul. Puls. Sabina.

Climacteric period. Aloe. Calc. c. Lach. Nitr. ac. Phos. ac. Sanguin. Sepia. Ustilago.

Closing the eyes. Alumina. Apis. Ars. Hep. s. Lach. Petrol. Theridium. Thuja.

Coffee, drinking. See: Morning. Cham. Mosch. Nux v.

Cold stage during intermitting fever. Capsic.

Cold weather. Sanguin.

Colic. Colocynth.

Compression of the brain, as if from, almost constantly. Caustic.

Congestion to the head. See: Concomitants; Head, congestion to.

Acon. Æscul. hipp. Apis. Arnica. Atropin. Bell.

Cact. gr. Calc. c. Calc. jod. Caps. Glon. Hyosey.

Iod. Kali brom. Kali jod. Lach. Nux v. Sanguin.

Spong. Stram.

Concussion. See: Traumatic causes: Arnica. Cicuta v.

Crossing a flowing water. Brom. Agnus. cast. Ferr. sulph.

Darkness, day or night. Stram.

Debility. See: Weakness: Loss of fluids.

Derangement of the portal circulation. See: Concomitants.

Descending, going down stairs. Borax. Ferr. Merc. per. Stannum.

Dinner. See: Eating. Aloe. Nux v. Phos. Selen. (one hour

after). Magn. sulph. (immediately after). Petrol. (com-

mencing at). Puls. Psorin.

Downward motion. Borax.

Dressing, after, in the morning. Formica.

when, in the morning. Tellurium.

Drinking, after. Lycopod. Manganum. Sepia.

Dyspepsia. See: Concomitants: Stomach. Cyclam. Natr. m.

Nux v. Sepia.

Eating, when. See: Breakfast; dinner. Amm. carb. Arnica.

Cal. c. Cham. Formica. Lycopod. Magn. c. Magn.

m. Natr. m. Natr. sulph. Nux v. Petrol. Phos.

Sepia. Silic. Sulph.

after. Aloe. Cham. Merc. Natr. m. Nux v. Psorin.

Puls. Rhus tox. Selen. Sepia. Sulph. Tarantula.

too much. Arnica.

Empty stomach. Calc. c. Iod. Chin. Phos.

Exercise. See: Motion. Walking.

Eyes, when opening the; while lying, intense vertigo. L. V. Deflo-

ratum.

when closing. See: Closing the eyes.

Flowing water, crossing a. See: Crossing.

seeing a. Ferrum.

Fright; fear. Acon. Bell. Ignat. Opi. Puls. Rhus tox.
after, obliging him to lie down. Opi.

Going down stairs. See: Descending.

up stairs. See: Ascending.

to sleep. Tellurium.

Hæmorrhagia. See: Loss of fluids.

Hæmorrhoids. See: Concomitants. Abdomen. Stool.

Headache, after. Merc. sulph.

Heart disease. Amm. Cact. gr. Calc. c. Digital. Glon. Iod.

Kali c. Phos. Rhus tox. Sambucus. Verat. alb.

Verat. vir.

Hunger and defective nutrition. Aletr. f.

Hyperæmia. See: Congestion to the head.

Hypochondria. See: Concomitants: Mind; abdomen; stool. Asa.

f. Nux v. (fainting).

Hypertrophia of the brain. Glon. Spigel.

Hysteria. See: Concomitants: Mind; sexual organs; generalities. Agaric. m. Asa. f. Atropin. Bell. Calc. c. Cham. China. Cicut. vir. Coccul. Coff. Conium. Cyclamen. Gels. Ignat. Iod. Lach. Lycopod. Nux m. Nux v. Phos. Puls. Stannum. Sumbul.

Intermittent fever, cold stage during. Capsic.

Intoxication, as if from. See: Concomitants: Head. Agaric. m.

Coccul. Crocus sat. Gels. Hyosecy. Ledum. Nux m.

Puls. Rhus tox. Secal. cor.

Kneeling. Magn. carb.

Leaning against something. Cyclam.

the left cheek upon the hand. Verbascum.

Leaving the room and going into the air. Ranuncul. bulb.

Lifting the eyes up. See: Looking upwards.

the head up. See: Raising the head. Clematis.

something. Tart. emet.

Locomotor ataxia, Progressive. Stram.

Looking backwards. Caustic.

downwards. Alumen. Kalmia. Oleander. Spigel.

sideways. Thuja.

upwards. Argt. nitr. Calc. c. Caustic. Cupr. Graph.

Nux v. Plumb. Puls. Sanguin. Sepia. Silic. Thuja.

Looking upwards, high. Argt. nitr.

and moving the head quickly. Sanguin.

at a fixed point. Caustic. Oleander. Sarsapar. Tarantula.
upwards, large level plain. Sepia.

out of the window. Oxalic ac.

round. Conium.

Loss of fluids. Comp. Hæmorrhage; pollution; masturbation;
diarrhœa. Aletr. f. Calc. c. Chin. Conium. Dios-
corea. Hep. s. Phos. Phos. ac. Puls. Sepia.

Lying down. See: Evening or night, when lying down. Apis.

Ars. Aurum. Cham. Conium. L. V. Deflorat. Merc.
per. Merc. v. Nux v. Oxalic ac. Rhus tox. Thuja.

down and moving. Tellurium.

on the back. Merc. v. Nux v. Sulph.

Malaria. Ars. Bell. Chin. sulph. Ipec. Phos. Verat. alb.

Masturbation. See: Loss of fluids; debility.

Mental agitation. Colocynth. Hyoscy. Ignat. Natr. m. Nux v.
Opi. Phos. ac. Pul. Staphy.

exertion. Agaric. m. Aletr. f. Calc. c. Cimicifuga. Co-
nium. Kali jod. Lach. Natr. c. Nux v. Phos.
Phytol. Puls. Sepia. Silicea.

Menstruation, before. Calc. c. Puls. Sepia. Verat. alb.

during. Graph. Hyoscy. Lycopod. Phos.

after. Graph. Lach. Nux v. Phos.

suppressed or checked. See: Concomitants: Female organs.

Motion. See: Moving; walking. Paeonia. Puls.

the slightest. Bry. Conium. Paeonia. Theridion.

Moving the head. See: Raising; shaking; turning the head.

Acon. Aloe. Bry. Carb. v. Clematis. Coccul. Co-
nium. Glon. Hep. s. Ipec. Kali c. L. V. Deflorat.
Mephitæ. Moschus. Sanguin. Tellurium (when lying).

the head rapidly and looking upwards. Sac. lac. Sanguin.

the arms. Sepia.

the eyelids. Moschus.

Narcotics, abuse of. Ars. Calc. Lach. Nux v. Phos. Sulph.

Noise. Theridion.

Odors, strong, of flowers, paint, etc. Bell. Hyoscy. Nux v. Phos.

Open air, in. See: Sitting; standing; walking in open air.

Agaric. m. Ambr. gr. Calc. Calc. ph. Cham. Coccul. Euphor. off. Glon. Hydr. ac. Kali c. Ledum. Nux m. Nux v. Oleander. Ol. an. Phelland. Phos. Phos. ac. Podoph. Puls. Ruta. Senecio. Sepia. Silic. Sulph. Taraxac. Thea.

Open air, walking in the. See: Walking. Ambr. gr. Ars. Calc. c. Calc. ph. Drosera. Euphor. off. Graph. Ledum. Lycopod. Merc. Nux v. Puls. Ruta. Sepia. Spigel. (when turning the head). Thea. Thuja.

Opening the eyes. Acon. L. V. Deflorat. Puls. Sanguin. *the eyes when lying* (intense vertigo). L. V. Deflorat.

Plethora, abdominal. See: Concomitants: Abdomen.

Pollutions. See: Loss of fluids.

Portal circulation, derangement of the. See: Concomitants: Abdomen.

Pregnancy. Acon. Ars. Ipec. Phos. Tart. emet. Verat. alb.

Raising the head. See: Moving the head. Acon. Aloe. Bry. Cham. Clematis. Cocculus. Crocus sat. L. V. Deflorat. Merc. v.

after stooping. Conium. Merc. v. Nitr. ac. Zinc.

when lying in bed in the morning. L. V. Deflorat.

after lying down at night. Crocus sat.

oneself. Tart. emet.

Reading. Agaric. m. Amm. c. Bell. Calc. c. Cupr. Graph. Gratiola. Merc. pr. Natr. m. Paris qua. Phos. Silic. Ruta.

aloud. Paris qua.

and sitting (particularly at night). Amm. c.

or sewing, overexertion from, by artificial light particularly.

Agaric. m. Calc. c. Bell. Graph. Natr. m. Phos. Ruta.

Relaxed or feeble condition. See: Weakness.

Resting, after. Lach. Puls.

Riding in a carriage. Coccul. Hep. s. Kali c. Petrol. Silic. Sulph.

Rising. See: Morning or night. Rising in the. Also, raising the head. Acon. Æthusa. Arn. Ars. Baryt. c. Bell. Calc. c. Calc. ph. Carb. an. Carb. v. Cham. Como-

clad. Conium. Ferr. Digit. Dulc. Glon. Gnaphal. Grat. Hipp. m. Hydro. ac. Magn. c. Merc. Natr. m. Natr. s. Niccol. Nux v. Oleand. Opi. Oxal. ac. Petrol. Phos. Phytol. Puls. Rhus tox. Ruta. Sabad. Selen. Sepia. Sulph. Sumbul. Triost.

Rising from a recumbent position, from the bed. See: Moving when rising. Acon. Bell. Cham. Comoclad. Conium. Dulc. Formica. Glon. Gnaphal. Hipp. m. L. V. Deflorat. Natr. m. Oleand. Opi. Petrol. Phos. Rhus tox. Ruta. Selen. Sepia. Silic. Sulph. Sulph. ac. *he falls over immediately when sitting up, and is afraid to rise again, lest the same trouble should recur, when assuming an upright position.* Acon.

from a seat. Æthusa. Bry. Calc. ph. Grat. Merc. Nux v. Oxal. ac. Petrol. Phos. Ptelia. Puls. Sabadilla. Selen. Sumbul.

from a seat, every attempt to. Æthusa.

from a stooping position. Bell. Niccol.

Room. Agaric. m. Ars. Crocus sat. Puls. Silic. Staphy. Sulph. ac.

Seeing flowing water. Ferr.

Sewing, overexertion from. See: Reading or sewing.

Sexual excesses. See: Loss of fluids. Calc. c. Nux v. Phos. Phos. ac. Sepia. Silic.

Shaking the head. See: Moving, or turning the head. Glon. Hep. s.

Sickness, after protracted. See: Weakness. Aletr. f.

Sitting. Æthusa. Amm. c. Apis. Bry. Carb. an. Carbo v. Caustic. Colchic. Evonymus. Kali c. L. V. Deflorat. Ledum. Mangan. Mephites. Merc. Merc. per. Nitr. ac. Paris. qua. Phelland. Puls. Ruta. Sabad. Sarsap. Spong. Staphy. Sulph. Viol. odor. Zinc.

obliging him to lie down. Nitr. ac.

and reading. Amm. c.

erect. Acon. Carb. an. L. V. Deflorat.

erect in bed. Bry.

down after walking. Colchic.

still. Æthusa.

- Sitting up in bed.* See: Morning, rising in the.
- Sleep, after.* See: Morning or night, awaking in the. Apis.
Carbo v. Lach. Nux v. Phos. Sepia.
after, in the evening. Apis.
during. Sanguin. Silic. Tellur. Theridion.
falling to. Argt. nitr. Tellurium.
- Smoking, after.* Gels.
- Spirituuous drinks and high living.* Calc. c. Carbo v. Natr. m.
Nux v. Verat. alb.
- Standing.* Apis. Calc. c. Cannab. sat. Carb. an. Euph. off.
Ledum. Magn. c. Magn. s. Mangan. Merc. peren.
Merc. sulph. Merc. v. Plat. Rhus tox. Zinc.
after walking. Calc. c.
at the window, falling back unconscious. Sarsapar.
erect. Acon. Carb. an.
in the open air. Euph. off. Podoph.
- Stomach, empty.* Calc. c. Chin. Iod. Phos.
- Stool, after.* Petrol.
during. Cham. Cobalt.
- Stooping.* Acid. lact. Acon. Alum. Apis. Bapt. Baryt. c.
Bell. Bry. Calc. c. Carb. v. Caustic. Cham. Cin-
nabar. Cobalt. Glon. Helleb. Hydr. ac. Kalmia.
Lach. Ledum. Lycopod. Mephit. Merc. corr. Merc.
per. Mosh. Nitr. ac. Nux v. Ol. an. Petrol. Puls.
Plumb. Rhus tox (after walking). Sepia. Silic. Spigel.
Staphy. Sulph. Sumbul. Therid. Thuja. Zinc. (and
raising the head again).
- Street, when in the.* Kreasot.
- Struma.* See: Tumor.
- Sun, bright.* Agaric. m. Glon. Natr. c. Selen.
- Supporting the head, and pressing in doing so the left cheek.* Ver-
bascum.
- Suppression of menstruation.* See: Concomitants; female organs.
Senecio.
of perspiration. Senecio.
of perspiration of the feet. (Chronic.) Silic.
of ulcers. Ars. Calc. c. Caustic. Sulph.
- Syphilis.* Aurum. Merc. Nitr. ac. Phytol.

Talking. Cham.

Thinking. Agaric. m. Natr. m. Puls.

Traumatic causes of recent date. See: Concussion; congestion.

Acon. Arnica. Cicuta v. Rhus tox.

congestion of long standing. Calc. c. Phos. Silic. Sulph.

Tumors; struma; swellings of the neck. Calc. c. Calc. j. Conium. Natr. m. Nux v. Phos. Silic. Sulph. jod.

Cancerous. See: Cancerous tumors of the neck.

Turning the head. See: Moving the head.

the head quickly. Acid. lact. Calc. c. Kali c. Sanguin. Staphy.

the head quickly and looking upwards. Sanguin.

around. Agaric. m. (in a room). Aloe. Conium. Ipec. Kreasot. Mephites. Phos. Ptelia. Sanguin. Theridion.

the body quickly. Kali c.

in bed. See: Morning, evening, night, when in bed. Conium. L. V. Deflorat. Mephites.

Ulcers, suppression of. See: Suppression of ulcers.

Vomiting, from. Croton tig.

Waking, on. See: Morning, night, awaking in the. Hyperic. Zinc.

Walking. See: Open air, walking in the. Apis. Arnica. Ars. Bell. Calc. c. Calc. ph. Cannab. sat. Capsic. Coca. Conium. Evonymus. Digital. Ferr. Ipec. Kali c. Kali jod. Ledum. Leptand. Liliium. Lycopod. Magn. c. Merc. Nitr. ac. Nux v. Petrol. Phellandr. Phos. Phos. ac. Phytol. Ptelia. Puls. Ranuncul. bulb. Rhus tox. Sarsaparilla. Selen. Sepia. Spigel. Sumbul. Tart. emet. Tellur. Viola tri. Zincum.

some time after. Merc. per.

when, obliging him to lie down. Nitr. ac.

Water, crossing a flowing. Brom. Sulph.

seeing a flowing. Ferrum.

using warm. Sumbul.

Weakness and debility. See: Loss of fluids. Aletr. f. Aloe. Chin. Helonias.

Wet, damp houses and localities. Ars. Chin. sulph. Diadema.

Ipec. Nux v.

Wine, drinking of. Natr. c. Nux v.

Worms. Acon. Cicuta. Cina. Merc. v. Silic. Spigel.

affections from, returning every new or full moon. Silic.

PECULIAR SENSATIONS AND SIGHTS. (Comp.: Head and Eyes.)

As if: From:

nothing in the head was firm. Coccul. Digital. Verat. alb.

Balancing in the head. See: Head was balancing, as if. Æscul. hipp.

to and from side to side when lying. Merc.

Bed, as if, was turning in a circle in the morning. Nux v.

Blood, as if the, ceases to flow in the head. Senega.

Board of vessel, as if on. Glon.

Chair on which he is sitting was rising, and he was looking down.

Phos.

Dancing, as if. Puls.

Drawn away, as if, in the direction of the legs. Tellur.

Everything was moving to and fro. Formica.

was moving up and down, when awaking. Zinc.

was moving around him. Cicut. v. Magn. c. Rhus tox.

Zinc.

was moving around one object. Sepia.

was moving from side to side. Cicuta.

was turning around. Aloe. Alum. Amm. c. Apis. Argt.

nitr. Arnica. Bell. Bry. Calad. Conium. Kali

bich. Lycopod. Magn. c. Natr. m. Nux v. Oleander.

Phos. Puls. Rhodod. Sabad. Staphy. Valerian.

Verat. alb. Viola tri.

was too far distant. Stannum.

around him was falling. Arnica.

around him was in violent agitation. Ptelia.

Falling, as if. See: Concomitants; generalities. (Here it is sen-

sational or imaginary; there it is real, or tending to be

so.) Acon. Arnica. Ars. Benz. ac. Calc. c. Caustic.

Cicuta vir. Gels. Phytol. Puls. Ranuncul. bulb.

Sulph. Zinc.

Falling backward. Bell. Brom. Spong.

down senseless. Calc. c.

forward, over. Agaric. m. Alum. Arnica. Ars. Cuprum.

Petrol.

(when raising the eyeballs). Phos. Rhus tox.

when raising the eyeballs, when lying down. Ars.

to one side. Cham. Conium.

to the left side. Bell. Merc. per. Spigel. Zinc.

to pieces when kneeling. Magn. c.

from a height. Moschus.

when leaving the room and going into the air. Ranuncul. bulb.

fear of, when walking. Coca.

Flying or hovering in the air, as if. Opium.

Hanging in the air, as if, in the evening, after lying down. Nux j.

Head would fall over, as if the. Arnica.

would fall to one side. Spong.

would fall to the left side. Samb. Zinc.

would fall to the right side. Ferr. L. V. Deflorat.

was balancing to and fro. See: Balancing in the head.

Carb. v.

was moving up and down. Zinc.

He could not support himself, as if. Tabac.

Intoxication, as if from. See: Concomitants; head.

Losing his senses, as if. Plat. Thea.

Objects move balancing (up and down), even when moving the head ever so little. Moschus.

moves swiftly from left to right; at other times moving as if tossed up from below in every direction. L. V. Deflorat.

seems to approach and then recede, with desire to hold something.

Cicuta vir.

Riding in a carriage with closed eyes, as if. Cyclam.

in a carriage sitting backward, as if. Glon.

Sitting too high, as if (after dinner). Aloe.

Suspended in the air, as if, Sepia.

Swimming, as if. Oxal. ac.

Swinging in a swing, as if. Bell. Merc. v.

Tipping over, and falling to the floor, as if, when lying down. Arsen.

Turned round so rapidly, as if, that he perceives the current of air produced by the motion. Mosch.

Vacillating from side to side, as if. See: Concomitants; staggering, under generalities. Cicut. v.

OTHER PECULIARITIES.

Attacks of, momentary, sudden. Bell. Carburetum sulph. Cupr. Dulc. Kali bich. Lach. Mephites. Plat. Ranuncul. bulb. Ruta. Senecio. Terebinth. Thea. Verbascum. Zinc.

of, every five minutes. Agaricus.

of, passing in quick succession, in the evening when standing. Plat.

Constantly, almost. Caustic.

increasing. Secal. cor.

Painful and reeling. Ol. an. Phos.

Periodical. Natr. mur.

Without loss of sight or hearing. Moschus.

AGGRAVATION.

From: when.

Ascending a height. Aloe.

Breakfast (one hour after). Selen.

Closing the eyes. Apis. Theridion.

the eyes when lying down. Apis.

Coffee. Coccul.

Damp weather. Brom.

Daytime. Platina.

Dinner. Puls. Selen. (one hour after).

Eating. See: Breakfast; dinner. Phos.

Evening. Puls.

Looking upwards. Silic.

Lying down and closing the eyes. Apis.

down and opening the eyes. L. V. Defloratum.

down after slight exercise. Iod.

Morning. Phos.

Motion. See: Walking. Æthusa. Bell. Cupr. Ignat. Theridion. Silic.

the slightest. Ignat. Theridion.

Moving the eyes. Plat.

Night, at. Amm. c.

Noise. Bapt. Coccul. Theridion.

Open air. Crot. tig. Cyclam. Laurocerasus.

air, walking in the. Cyclam. Phellandr. Tellur.

Opening the eyes while lying. L. V. Deflorat.

Riding. Cocculus.

Rising. Bell.

from a seat, the very attempt to do so. Æthusa.

from a seat or bed, when just. Iod. L. V. Deflor.

Sitting. Apis. Evonymus. Sabadilla.

down after slight exercise. Iod.

up. Coccul. Tellur.

Sleep, after. Lach.

Smoking. Coccul. Gels.

Sounds, reverberation penetrating the whole body, particularly the teeth. Theridion.

Spirituous drinks. Nux v.

Standing. Petrol.

Stool. Cupr.

Stooping. Alum. Bapt. Bell. Cobalt. Ledum. Kali nitr. Theridion.

Thinking, or being absorbed in thought. Nux v.

Turning the head. Tellur.

Turning over in bed. Conium. L. V. Deflorat.

quickly around. Aloe.

Walking. See: Open air, walking in the. Motion. Apis. Coccul. Cyclam. Ledum.

Warm room. Bell. Cobalt. Merc.

Windy weather. Calc. ph.

AMELIORATION.

From: when.

Flatus, expelling. Æthusa.

Lying down. Arnica. Carb. an. Cupr. L. V. Deflorat. Nitr. ac. Opi. Petrol. Phelland. Sulph. acid. Tellur.

- Lying down, remaining very quiet.* Tellur.
Night, at. Plat.
Noon, at. Lachnanth.
Open air. Bell. Caustic. Crocus sat. Liliūm. Magn. m. Merc.
 Mosch. Plumb. Puls. Sulph. ac. Tabac.
Opening the eyes. Alumina. Thuja.
Perspiration on the forehead. Natr. sulph.
Rest. See: *Lying.* Bell. Colchic. Natr. m. Nux v.
Rising from a stooping position. Moschus.
Room, when in a. Creasot. Cyclam.
Sitting down. Kali nitr. Salix.
up. L. V. Deflorat.
in a room. Cyclam.
Standing. Sabadilla.
Stooping. Petrol.
Turning the head quickly. Agaric. m.
Vomiting. Tabac.
Walking. See: *Open air.* Amm. c. Bry. Capsic. Cyclam.
 Lycopod. Magn. c. Puls. Rhus. tox. Sabad. Staphy.

CONCOMITANT SYMPTOMS.

SENSORIUM OF MIND.

- Absent-mindedness.* Acon. Lach. L. V. Deflorat. Lac caninum.
Anxiety and anguish. Acon. Aloe. Arsen. Bell. Borax.
 Caustic. Cocculus. Coff. Merc. Nux v. Opi. Oxal. ac.
 Psorin.
(after dinner). Rhodod. Verat. alb. Thuja.
(after dinner) in the stomach. Acon. Bell. Verat. vir.
(after dinner) on downward motion. Borax.
(after dinner) when moving. Aloe.
Childishness of aged people. Ambr. gr. Aurum. Baryta c.
 Conium. Opi. Plat. Verat. alb.
Cloudiness of senses. Hydr. ac.
Confusion of mind or senses. Argt. nitr. Cantharid. Digital.
 Gels. Mezereum.
(while standing) rendering walking impossible. Cannabis ind.
 Cantharides.

- Craziness.* Bell. Cuprum. Glon. Jatroph. Opi. Nux v.
Delirium. Bell. Cantharides. Opium.
following giddiness. Jatroph.
joy, generally, with laughter, ecstasy. Cannab. ind.
maniacal, staggers about the room like a drunken man. Acon.
 Bell. Cicuta. Hyos. Opi.
slight. Colocynth.
with or without loss of consciousness. Cannab. ind.
Disinclination to mental labor. Phytol.
Dulness of comprehension. See: Dulness of head. Æthusa.
 Argt. nitr. Bell. Cham. Gels. Mephites. Natr.
 sulph. Phos. (in the morning when rising).
Excitability, nervous. Cact. gr. Gels.
as from intoxication. Nux jugl.
Fear in general. Acon.
of dying. Acon. Ars. Rhus tox. Verat. alb.
of falling. Alum. Ars. Coca. Lac caninum. Rhus tox.
 Zincum.
Gloominess. Paeonia. See: Head. Phos. (after giddiness).
Ill-humor. Cham. Mephites.
Insensibility. See: Vanishing of senses. Acon. Angustura.
 Arnica. Ars. Baryta c. Bell. Borax. Bovista.
 Calc. c. Camph. Carbo an. Caustic. Chin. Cocculus.
 Conium. Hipp. m. Hyosey. Ipec. Jatropa (follow-
 ing vertigo). Kali c. Lach. Laurocerasus. Ledum.
 Lycopod. Natr. m. Nux m. Nux v. Oleander. Opi.
 Phos. Ranuncul. bulb. Secal. cor. Sepia. Silicea.
 Spigel. Sulph. Sumbul. Tabac.
Knew not where she was when turning about once. Phos.
Loss of memory; forgetfulness. See: Vanishing of ideas. Argt.
 nitr. Lac caninum. L. V. Deflorat. Verat. alb.
of presence of mind. Borax.
Pride; overestimation. Plat. Verat. alb.
Sluggish feeling of the mind. Scrofularia.
Stupefaction. See: Head. Bell. Calc. c. Cupr. Hyosey.
 Mosch. Sarracenia. Silic.
Talkativeness. Lach.
Thinking, difficult. Ranuncul. bulb. Senega.

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ARTICLE XV.—Infantile Wasting Palsy.

By S. L.

THIS disease is also known under the name, spinal infantile palsy, essential infantile palsy, paralysis of dentition, paralysie graisseuse des enfants, atrophische Kinderlähmung.

It develops itself in children during the first years of their life, and, if not checked, leads to atrophy of the muscles, to contractions, deformities, and deficient development of the affected parts. The disease may therefore be divided into two periods: 1, the acute attack of paralysis; 2, the period of atrophy of the muscles, of the contractions and deformities, etc.

1. The acute attack of paralysis is in most cases preceded by febrile symptoms, as general malaise, loss of appetite, drawing in the extremities and small of the back; the fever may last only from twelve to twenty-four hours, or may extend over several days, and varies in intensity. Roth (*Br. J. of H.*, 27, 403) emphasizes that even with a severe fever there is *no vomiting*, a symptom very frequently occurring in other fevers of children, and especially in cerebral affections. Sometimes the fever lasts eight or ten days, and takes on the appearance of a typhoid fever (Duchenne fils); in other cases eclampsia prevails, followed very

soon by general paralysis, which at one stroke may attack all the limbs, as well as the trunk and neck. With the development of the palsy the fever ceases. In other cases the fever is short, insignificant, or entirely absent. The child went to bed apparently as well as usual, and wakes up in the morning with paralyzed extremities. Kennedy blames pressure during sleep for it, as the child might have laid in a position which pressed too hard upon some nerves; Peters believes that cold may be the cause, as the child uncovered the limb which was found paralyzed in the morning; but neither the one nor the other suffices to explain the phenomena of the disease.

Painful symptoms precede or accompany the paralysis. Children of 3 to 5 years complain of drawing pains in the lower extremities, in the small of the back, between the shoulders. Smaller children cry when lifted up or touched rather rudely. Transient contractions and clonic twitchings have also been noticed to precede the paralysis. The palsy itself appears suddenly, apoplecticiform, and in most cases reaches only gradually its greatest intensity. The extension and form of the paralysis varies. We find the extremities, then the muscles of the trunk, especially of the dorsal region, and then the abdominal muscles, the seat of the affection. All four extremities may be paralyzed, or two in hemiplegic or paraplegic form. Often only one extremity is paralyzed (monoplegia), or only certain groups of muscles of that extremity (paralysis partialis of Heine). Where the muscles of the trunk become paralyzed, we find the children unable to sit up, and the vertebral column becomes gradually crooked. The head is never affected, thus proving that the paralysis never ascends to the medulla oblongata.

Infantile atrophic paralysis is nearly exclusively a motory one, and Duchenne has given us valuable hints in relation to the electrical status of the paralyzed muscles. According to this writer, the relation of the muscles to the faradic current is of great prognostic importance. In the muscles which are only temporarily paralyzed, the electrical contractility is preserved. The more this decreases, the more the muscles will be found changed. Where all reaction ceases, fatty degeneration took place, and a cure is henceforth impossible. With these electrical manifestations,

trophic disturbances in the muscles go hand in hand. Already, during the first days of the disease, a great relaxation of the muscles can be perceived, increasing in the next weeks, so that the limbs hang loose even when they are not totally paralyzed; the joints are so relaxed that the ligaments were considered relaxed even at this stage of the disease, though this only takes place at a later period. After two weeks, or thereabout, the atrophy of the muscles becomes plainly visible, especially in the muscles of the shoulder, upper arm, and legs. Heine already led our attention to the cooler temperature, the cyanotic appearance, and the profuse cold perspiration of the knees and toes, of the fingers and elbows.

Other symptoms, which usually accompany spinal paralysis, are either entirely wanting or only slightly developed. Thus we hardly ever see the sphincters or sensibility affected, although enuresis has been observed, and at the beginning of the disease some hyperæsthesia.

Amelioration is frequent, total restitution rare, though there are cases (Kennedy's temporary paralysis) where the paralysis disappears spontaneously in three or four weeks without any alteration in the muscles. Other cases recover more slowly even after months, but in a relatively large number of cases the recovery is only a partial one; remnants of paralysis remain, with atrophy of muscles, leading to contractions and other sequelæ. The muscles of the shoulder recover their function most easily, then those of the forearm; the deltoid and triceps remain paralyzed the longest time; in the lower extremities the adductors of the thigh, the quadriceps, and the perinæi regain with difficulty their lost function.

2. *The period of muscular atrophy and of deformities.* The muscles which are lastingly paralyzed, pass into a high-graded atrophy, with excessive development of fat, so that the atrophic extremities surpass sometimes their normal circumference; even the skin takes on such an enormous panniculus that it exceeds in size the healthy limbs. The muscles themselves degenerate, feel doughy and relaxed, and the whole affected parts become changed: 1. The paralyzed limbs are backward in their growth and development, just in proportion as the paralysis was perfect

and the earlier it developed itself. The more the growth of the child progresses, the greater will be the difference, and when the patient becomes full grown we frequently find the affected limb hanging as a small relaxed appendix on the trunk. The bones are thinner and shorter, even changing in different parts of the limbs, and this difference is especially observable in the bones of the fingers and toes. The muscles remaining intact, especially the sinews, are smaller and thinner than on the other side. 2. Among further atrophic manifestations the muscles occupy a most important place. They frequently appear as mere rudiments at the stunted extremity, are of a doughy, flabby consistency, and shortened in size. The skin which covers them is tough, fatty, cool, of a bluish color, frequently somewhat œdematous. The epidermis and nails show no change. Sometimes an expansion of the bones of the tarsus and carpus has been observed. Another trophic disturbance of the bones is shown by their friability and liability to fractures, as if they suffered from osteomalacia, rendering them liable to distortions and infractions, and scoliosis may be caused by the softness of the ribs and vertebræ, whose structure becomes spongy, the cortical substance thin, the porous medullary substance in excess. By the overweight of the body the bones give way to the traction of the muscles, and deformities necessarily follow. 3. The flabbiness of the atrophic parts is remarkable, and leads to a peculiar relaxation of the ligaments of the joints, causing subluxations and luxations. This is most frequently observed on the knees, which bend, when standing, backwards and inwards, and cause genu valgum et recurvatum, with general looseness of the joint, with debility and imperfect paralysis of the quadriceps, whereas the flexors nearly retained their full power. On the upper arm West observed a total luxation of the humerus, caused by the nearly total atrophy of the muscles surrounding the joint. 4. Contractions form, whereon considerable remnants of muscles remain, leading to a faulty position of the extremity, and gradually to a faulty position of the joints, to changes in the surfaces of the articulations, and to dislocations of their respective forms and positions. The more the extremity remains behind in its growth, the more the contractions increase and lead to considerable malformations.

In relation to a differential diagnosis between infantile atrophic paralysis and other similar diseases we must mention :

1. The hereditary form of progressive muscular atrophy, which is never acute, but begins and progresses gradually, hardly ever causes a total paralysis nor a stoppage of growth in the extremity. The same may be said of the lipomatous muscular hypertrophy.

2. The obstetrical palsies of children differ in their origin, in their course, and in their mostly favorable prognosis.

3. The palsies after acute diseases, especially after exanthemata, cannot be strictly differentiated from atrophic infantile paralysis ; they keep the same type, and have repeatedly been considered as such. Still there are others, as the diphtheritic paralysis, which differ greatly in their development and in the course they run.

4. The difference between encephalitic infantile paralysis is easily made out, inasmuch as the latter keeps the hemiplegic form and never leads to such intensive atrophy and fatty degeneration of the muscles. The muscles are more weakly developed than on the healthy side, less strong, frequently in contraction, and of peculiar rigidity ; the paralyzed side fails to become developed. The hemiplegic type (hemiatrophy) is always decided, and only in monoplegia the diagnosis might be somewhat difficult.

5. The paralytic debility showing itself occasionally during dentition in rachitic children, might cause a mistake, especially where the muscles are flabby and emaciated. The symptoms of rachitis are sometimes not very outspoken, but decisive symptoms are the gradual origin of the debility, its limitation to the lower extremities and the fact that the children scream when put down on their feet, on account of the painfulness of the joints, especially of the knee-joints. In most cases they are expanded and painful to pressure, other symptoms of rachitis are present, whereas the relaxation and fatty degeneration of the muscles, as also the decrease of electrical irritability, are missing.

Pathological Anatomy.—Even during life the stunting of the bones, the atrophy of the muscles, the abundant development of fat in the muscles and skin can be easily demonstrated. The bloodvessels, especially the arteries, the sinews of the muscles, and the nerve-trunks show an attenuation corresponding to the total stoppage of development, and the bones become soft and

friable. Duchenne adopts four periods in the fatty degeneration of the muscles: 1. Simple atrophy of the muscle, with loss of bulk (duration eight to ten months). 2. Disappearance of the horizontal, after awhile also of the longitudinal, striation, with paleness of the muscles. 3. Production of amorphous granulations in the sarcolemma (between the first and second year of the paralysis). 4. The amorphous granulations change into fatty granules, whereas simultaneously fat develops itself between the slender muscular fibrillæ.

Microscopically the muscle appears as a nearly homogeneous whitish-yellow mass, of a doughy consistency, intermixed with some pale-red fibrillæ. The growth of fat is mostly remarkable in the remaining parts of the muscle; it really seems that the muscle, though retaining its normal volume, has entirely changed into fat (lipomatous degeneration). Between the fat layers of tough connective tissue are found. In marastic children (or grown people) who died after long sickness, the fatty development is scanty, the muscle thin, nearly gone, flabby, and of a pale-red or pale-brown color. Atrophy is also observed on the roots and trunks of nerves; they appear thin, of a grayish tint, having lost the intensive white color of the nerve-marrow. In the spinal cord the multipolar ganglionic cells in the gray anterior cornua are atrophied.

Pathogenesis.—Most authorities consider spinal infantile paralysis an acute inflammation of the gray substance of the spinal cord (polimyelitis or téphro-myelitis acuta). This process consists in primary, circumscribed, small myelitic foci, appearing in the substance of the anterior cornua, and leads to atrophy of the multipolar ganglionic cells, often, also, to an atrophic sclerosis of the white anterior-lateral columns, as well as of the anterior roots of the spinal cord. Charcot showed that in some cases the atrophy of the ganglionic cells is the primary point of attack, but even then we have to deal with an inflammatory process, with a diffuse central myelitis with abundant cellular proliferation and final atrophy of the gray substance. In other cases sclerotic foci were observed in the lateral columns, extending to the gray substance and even attacking the posterior columns. All these three anatomically differing forms have in common, that they begin as

acute myelitis of moderate intensity (without softening), either diffuse or in foci, and that from the start or after some time the gray substance of the anterior cornua of that region is drawn into the morbid process. Infantile paralysis nowadays is acknowledged to be frequently primarily a spinal affection; still it cannot be denied that it may also be based on traumatic causes, on muscular overexertion, with simultaneous itching cold or on a nervous irritation from dentition. Such peripheric causes draw secondarily the spinal cord into coaffection.

Therapy.—During the first stage the old school recommends their old traditional remedies, rest in bed, light diet (tepid bath and cold affusions where typhoid symptoms show themselves) during the fever; as soon as the paralysis sets in, a more roborating diet, and after a few weeks Iodide of potash, *Secale cornutum* or Strychnine with country air, wherever possible. Cod-liver oil is also recommended, even electro-therapeutics. The second stage needs elasticity and gymnastics. Duchenne favors the faradic current; Remak and his disciples prefer the constant current as less painful and of equal usefulness in children, especially as it can be already applied during the first stage. In the second stage *electricity* strengthens and nourishes whatever still remains of muscular elements, and simultaneously it aids a more powerful development of the muscles as well as of the bones. At this stage faradization acts more energetically, strengthening the still contractile fibres of the atrophic muscles. *Gymnastics* also will by judicious exercise strengthen the muscles, and thus prevent or at least diminish the atrophy. *Orthopedic* treatment must prevent deformities, whenever possible, by suitable appliances, and is especially of great importance as long as the child is still growing. Finally *surgery* must not be neglected, for suitable operations may still improve or even remove contractions and deformities, but all operations which prevent muscular activity must be strenuously avoided. Hence tenotomy cannot be promiscuously recommended, inasmuch as it puts the weakened muscles temporarily out of function, and may only be performed after a careful study of each individual case. *Massage* can only do good. In fact the whole treatment of atrophic infantile paralysis needs great patience, consequent performance of the plan laid out for treatment, and an

abiding confidence in our labors, though it may take several years to succeed or even only to prevent life-lasting deformities.

So far we have made extracts from Leyden's classical work *Diseases of the Spinal Cord*, ii, 554, and we found him thorough and explicit, except in treatment. Here homoeopathy always can claim the victory over her older sister, and let us study the remedies which might find their application in this formidable and deforming disease.

We might well ask, how does it come that the so-called regular or even scientific school deals so much with the dead body, examines macroscopically and microscopically every tissue and every fibre of the deceased patient, but leaves so many questions of the living body unsolved. We might ask the question, why should dentition be a cause of convulsions, of palsy in one child, when a thousand others pass through the same physiological process without any disturbance whatever? Why should one child from exposure of the back or seat to damp cold, be stricken with paralysis and become deformed for life, when a thousand others jeopardize themselves in the same manner and no evil results therefrom? It is an old trite saying that children are like cats, they alway fall on their feet and do not hurt themselves, and still from a slight traumatic cause evil results follow to the one child. Has so far the scalpel or even the microscope aided us in unravelling that mystery? There must be a predisposition which renders those exceptional children liable to such deleterious influences, but what this predisposition is, where it resides, we know not. We may perhaps say with Hahnemann (*Organon*, § 80) that *psora* is the fundamental cause and source of all the other countless forms of disease figuring as peculiar and definite diseases in books on pathology, particularly when we contemplate the mass of circumstances (71) which produce and favor the formation of so great a variety of chronic diseases, but what is this *materia peccans* of the diseased body which Hahnemann denominated *psora*? Is it a material morbid matter, though invisible even through the strongest microscope, or is it a dynamical disturbance which modifies so terribly the whole life of an innocent human being? We only know that there is a something which so far has baffled human

ingenuity to find out, we know its consequences, and we have to thank Father Hahnemann and his apostles for the knowledge of the weapons which might aid us in overcoming the wily enemy.

Let us look at *Psorin*, and from the provings as given in Stapf's *Archiv* (*N. A. J. of H.*, 24, 166), we can hardly find it a similitum to the disease in question, but still Lobethal calls it the quintessence of the antipsorics, and finds it efficacious where, on account of a latent psora, disease and suffering exist, which fail to be benefited by well-indicated remedies. Might it not, if given early during the first stage, perhaps, enable the nervous system to throw off the incubus, and by placing the poison on the skin, relieve the internal disease? We know full well how that foul inheritance, whatever it might be, alters and modifies the functions and tissues of a healthy body, might we not by inference hope and expect some benefit from this great, but not yet fully understood, homœopathic remedy? We advise every physician to study carefully this psora, as given by Hahnemann in the first volume of his *Chronic Diseases*, pp. 64–105.—Dr. J. C. Peters (*N. A. J. of H.*, iv, 345) in an article "On Paralysis in Young Children," considers this disease a primary rheumatic paralysis (Bouchut), but his cases from pure muscular or nervous debility, where the paralysis manifests itself slowly and in a progressive manner, hardly belong to what we now call "infantile atrophic paralysis or paralysie graisseuse." He recommends early treatment, and in the cases produced by exposure to cold, he gives *Mercurius corrosivus* as the most homœopathic remedy, but the cases he cites cured from allopathic authorities (Stanley, Sir Benjamin Brodie, Latham) happened to grown persons. We cannot find, neither in allopathic nor homœopathic literature, that the mercurials cause, after a short febrile attack, sudden paralysis; tremors rather belong to this mineral, and the hemiplegia, witnessed sometimes in old cases, is rather due to a softening in the cerebral hemispheres with effusion into the ventricles, whereas in our case we have to deal with an atrophic sclerosis from a poliomyelitis.

Rhus toxicodendron he considers another remedy homœopathic to affections caused by exposure to cold and wet, and also to paralysis, and continues, it has even cured cases attended with more or less general marasmus, with more or less paralysis of the blad-

der, etc.; symptoms not found in our disease, and therefore not similar to the totality of the diseased state. The same may be said of all his remedies, as Arsenicum, Colchicum, and others.

Of all the remedies mentioned by Peters, we might have some confidence in *Cocculus*, for Hartmann cured several cases of paralysis of the lower extremities with *Cocculus*, proceeding from the small of the back, and arising from cold; it also corresponds to paralysis of the side, with a sensation of coldness in the affected parts. Dr. Hallock has cured a case of palsy of the left side, in a young child, with *Cocculus*³. Hahnemann (*M. M. P.*, ii, 96) recommends it in affections of the spinal marrow, and even in what was at that time called *tabes dorsalis*, and in the pathogenesis we read: 280, paralytic aching pains in the lumbar region. The bones in the small of the back feel bruised; this pain is not increased by contact; 437, want of vital energy. The limbs feel paralyzed. Paralytic immobility of the limbs, with drawing pains, apparently in the limbs; attacks of paralytic weakness with pain in the small of the back; apoplexy of the left side; 445, painful paralytic weakness in arms and legs; she is scarcely able to rise, etc., etc. Inasmuch as *Cocculus* acts especially on the spinal motor nerves, and as it is especially suited to nervous children, it may be indicated during the acute stage of the disease, when there is still only functional disorder of the cord.

Hughes (*Therapeutics*, 494) recommends *Gelsemium* in the early part, and later *Belladonna* and *Secale*, and there is no reason why you should not give the paralyzed muscles the benefit of localized galvanism. Hale (*Therapeutics*, 252) considers the sphere of action of *Gelsemine* principally confined to the motor side of the spinal cord, and that it primarily causes passive congestion of the brain and spinal cord. The fever, which so often precedes this infantile paralysis, certainly hints strongly to *Gelsemium*, as we find it indicated as well in catarrhal fevers with restlessness, anxiety, thirstlessness, but at the same time with that torpid heavy condition, suggesting premonitions of a typhoid state. It is also equally applicable to the infantile remittent fever, whether due to irritation of teething or intestinal troubles. As soon as this motor-palsy has set in, the time for *Gelsemium* has passed, and we must look for other remedies, and

Belladonna still holds out some hope. Teste (*Diseases of Children*, 333) recommends it in alternation with *Thuja*, lengthening the interval between the doses as the symptoms improve. Hughes (*Pharmacodynamics*, 175) says, the pathogenesis of *Belladonna* shows us a good many symptoms of loss of power over the extremities, and this not from exhaustion only, but occurring comparatively early in the poisoning, and as the pathological basis of the phenomena of this disease is in the first instance of inflammatory nature, it would be the truest homœopathy to give *Belladonna* as a remedy in its early stages. The clearsighted P. P. Wells truly remarks that the paralysis of *Belladonna* is the result of pressure, either the accumulation of a continuously increasing congestion of the nervous centres, or of its membranes, or of an accumulated serum which a previous congestion has terminated. It is well known that the inflammations suitable to *Belladonna* appear suddenly, and this is too often the case in our myelitis. Allen gives us, 2192, paralytic weakness of all the muscles, especially of the feet; (1855) rheumatic pain in the back; 1875, lumbar weakness; 1914, paralytic weakness of the muscles of the upper and lower extremities (after six days—just about the same time when the paralysis follows the myelitis); paralytic weakness and feeling of paralysis in all the limbs, or on one side of the body; paralysis of the right arm and right leg, etc., etc.

Atrophic infantile palsy may be of hereditary or bioplastic origin in many cases, as it is well known that psora is congenital, and that it materially interferes with the vegetative or nutritive functions of the nervous system. Hence we may meet even with organic lesions as the result of impaired nutrition, and this latter dependent upon psora. But we more frequently encounter functional disorders solely consequent upon the irritation produced by the centric psoric poison, and transmitted by the centrifugal nerves. This will account for many otherwise unexplainable nervous disorders, for which *Psorinum* again has paved the way, by removing the obstacle for the remedy indicated otherwise. Teste, therefore, is right in recommending also *Thuja* in alternation with *Belladonna*, Hahnemann's grand antidote to the sycotic poison; but in looking over the pathogenesis of *Thuja* (Grauvogl's and Virchow's leucæmia), as well as of *Psorinum*, we acknowledge to

find only a few symptoms hinting to paralysis; and still we sincerely believe that these cases, so entirely intractable during the second period, might be cured during the first stage by interpolating once and awhile a dose of Thuja, or of Psorinum, according to the individuality of the case.

Dr. Hughes, in an article on paralysis and its treatment, published in the *Brit. J. of H.*, xxvii, page 22, cites Dr. Radcliffe, who considers infantile paralysis to be dependent on spinal congestion, for which our worthy friend finds Gelsemium indicated, and when the disease supervenes upon a convulsion, he would try *Curare*. But *Curare*, though purely and simply acting on the motor portion of the nervous system, causes paralysis from the periphery towards the centre, which might by some physicians be considered a contraindication, but we can hardly expect that children should be able to decide clearly where their palsy began. Let us rather look at the physiological action of *Curare*, as given by Nothnagel (*Mat. Med.*, 73), where we read: *Curare* unfolds its chief influence on the motor nerves of the horizontally-striated muscles, especially the voluntary ones, and most physiologists believe that it attacks the trunks of the motor nerves to the very last branchlets, the paralysis ascending from the latter to the former. The muscular substance itself remains susceptible to direct stimulation. It gives us a febrile state, with a small and accelerated pulse, a rise of temperature, and a rapid diminution or suspension of the power of locomotion in the lower extremities; but the paralysis is evanescent, whereas the fever lasts several days. Hermann and Bezold deny any influence to *Curare* on the cerebro-spinal system. Physiological researches leave us therefore entirely in the lurch, but we find even very little support for its indication from the pathogenesis of the remedy (Allen, iv, 37): 328, convulsive movements in the spine and limbs; 339, complete paralysis of the arms, beginning with insensibility of the skin; heaviness and paralytic weakness of the arms; 356, the legs have a tendency to become bowed outward, like those of rickety children; 365, excessive emaciation; 368, deficient circulation, with concretions in the nerves.

As *Phosphorus* is acknowledged to be of great value in wasting palsy of grown persons, might we not expect some benefit also in

infantile wasting palsy? The conclusions of Dr. Meyer (*Brit. J. of H.*, 27, 14) are, that "Phosphorus acts specifically on the nerves of voluntary motion, and on the muscles themselves. It impedes, diminishes, and at last entirely destroys the power of movement, or rather it destroys the irritability of the motor nerves, and the contractility of the muscular fibres, and at last completely paralyzes the powers." According to Naunyn (*Ziemssen's Encyclopædia*, 15, 327), no essential changes were found after intoxications with Phosphorus in the central nervous system, but the question remains open whether the autopsies were made with microscopical exactness, as microscopical examination of the muscular fibres of the heart and of other muscles of the body revealed them full of fatty drops of different size. Processes of proliferation are found everywhere in the interstitial tissues, and Klebs gives fatty degeneration of the walls of the capillaries and finest bloodvessels as the cause of the hæmorrhages. We find the same lipomatous degeneration of the muscles in infantile wasting palsy, and essentially also as an interstitial lipomatosis. Noack and Trinks consider Phosphorus indispensable in acute affections, in the course of which the cerebro-spinal system of nerves become very much depressed, and finally threatened with paralysis. And Burt (*Characteristic Mat. Med.*, 399) regards Phosphorus, under certain circumstances, the great power which enables us to repair the damage, where the reproduction or supply of nervous tissue is deficient or abnormally altered by some cause or another. "It does this through its action upon the ganglionic nervous system, producing atrophy." Teste (*Mat. Med.*, 289) considers Phosphorus principally suitable to adults of both sexes, and to old men, much rather than to children, but we have combinations of Phosphorus, which are especially suitable to children, and none more than *Calcarea phosphorica*, a drug which Raue recommends us in hydrocephaloid with cholera infantum (a diseased state hardly seen except in children of a scrofulous diathesis), which gives us the picture of scrofulous ophthalmia and coryza, a drug whose pathogenesis furnishes us such symptoms as: Slow dentition, with cold tremors and emaciation; 419, in the union of sacrum and hipbone, sacro-iliac union, a soreness as if separated; 423, pains flying about in all parts of rump and limbs, after getting wet in rain;

427, paralysis of the whole left arm ; pain and numbness in the left arm ; 465, the child does not stand any more ; lower limbs, abdomen, and sacrum asleep, cannot get up from the seat ; 476, on rising, after sitting a short time, the right buttock feels as if gone to sleep, and this sensation extended through the entire leg down to the toes ; 518, rachitis, fontanelles wide open ; 520, after fractures, when they do not ossify, or the callus does not form, etc., etc.

Another excellent preparation of lime, which ought to be remembered in infantile wasting palsy, might be *Calcareæ oxalica*, for oxalic acid produces inflammation of the membranes and substance of the cord ; the stiffness of the limbs and the paroxysms of spasmodic dyspnoea point plainly to irritation of the spinal meninges, and the anæsthesia, neuralgia, and loss of power indicate a similar affection of the spinal marrow itself (Hughes, *Pharmacodynamics*, 43). Dr. James Blakely published in the third volume of the *Hahnemannian*, p. 267, a proving of *Calcis jodidum*, and among the symptoms it produced were: Dull, heavy lameness in the posterior surface of the right arm ; severe laming pain in the external portion of the right arm, with numbness of the hands and fingers ; tired feeling in the lower limbs, especially in the calves of the legs, and weariness of the whole body. But Iodine is a liquefacient to the tissues, promoting their disintegration, and leading to atrophy, and it may, perhaps, come in at a later stage of the disease, just as the oxalate or phosphate of lime may find their indication during the primary stage.

Causticum is another preparation of lime, or, as the English authorities have it, of Potassa. Whether the motor spinal nerves are only affected through sympathy with the vegetative nervous system is a question still undecided ; at any rate we find in the pathogenesis, as given in Allen's *Encyclopedia* : 969, stiffness in the lumbo-sacral region ; pressing cramplike pain in the small of the back and region of the kidney, while sitting ; bruised pain in the coccyx ; 992, weakness and trembling in all the limbs ; paralytic weakness of the limbs ; loss of power in the right arm, almost like paralysis, with feeling of stiffness, especially when writing ; 1090, paralytic sensation of the right hand ; 1129, weariness in the lower legs, in bed or walking ; 1289, weary,

prostrated, and sick feeling in the whole body, as if severe illness were imminent; 1304, numbness and deadness of all the soft parts of the whole side of the body, as if there was no blood in the skin. Like all antipsorics it is adapted to weak scrofulous children, especially with a yellow complexion, and it may, therefore, be indicated in the primary stage, especially when the urinary symptoms correspond to the case.

The old school greatly relies on *Secale cornutum*, or *Strychnine*, during the first stage of the disease, and they act here from good reasons, for both remedies are more antipathic than homœopathic to our disease. If either of them will be ever indicated here, the indication will be found in other symptoms than those of the palsy alone, but being suitable to the case, it will remove all symptoms.

Hering recommends strongly *Sulphur* for infantile wasting palsy, and our revered friend is right, inasmuch as there are very few constitutional diseases in which the treatment may not be advantageously commenced by a short course of this wonderful antipsoric. Although we do not find exactly symptoms of paralysis in the provings of Sulphur, as given in the chronic diseases, still there are hints enough for a rheumatoid or gouty diathesis, and even among its symptoms we read: Drawing and weakness in the small of the back; a feeling of weariness in the back; tearing and paralytic weakness in the right arm; weakness in the upper arm, so that she is not able to raise it; the right forearm feels paralyzed and without sensation, going off by friction; heaviness and faintness of the lower limbs; paralysis in the thigh, apparently in the hip, above the nates; paralytic weakness in the knee, when going down stairs, as if sprained; painful weariness in the knee-joints; weariness of the feet; want of vitality, a sort of internal coldness, etc., etc. As the paralytic state of the child hardly presents any therapeutic hint, we must fall back on the peculiarities of the patient in time of health (*Organon*, § 90), and find out the antecedents of the little patient, and only too often an insight of the case will reveal a faulty bioplasma, based on syphilis, sycosis, or psora.

Teste also shares in this opinion, for he recommends *Thuja* in connection with the Belladonna. Hahnemann raised this drug to

the rank of a specific in sycotic diseases, and Grauvogl considers sycosis nearly identical with Virchow's leucæmia, with its enlarged spleen and lymphatic glands; and when Teste finds the tree of life particularly suitable to persons of a lymphatico-sanguine temperament, with dark complexion, black hair, dry fibre, and not very fat, he shows us his perfect agreement with that state which Grauvogl so beautifully delineated to us in the hydrogenoid constitution.

Goullon, Jr., in his prize essay on Thuja (*A. H. Z.*, January, 1876), quotes from Virchow that the magnitude of the organic disease does not stand in any constant relation to the completeness of the dyscrasia. Among the sycotic neuroses he mentions epilepsy, eclampsia, paralysis, scleromæ of new-born children, and when comparing Thuja with Natrum sulphuricum, he mentions that both remedies give in their pathogenesis the picture of chlorosis, or of erethic scrofulosis, hence the debility, the physical malaise, the pot-belliedness of children, the signs of approaching tuberculosis, the swelling and inflammatory processes of the tonsils, the ulcerated nostrils, the ophthalmia, with redness and photophobia. Symptoms of rheumatritis pervade the whole pathogenesis, so that we even meet paretic weakness of the extremities. Thuja has cured many painful affections of the nervous system, as prosopalgia, cephalalgia, epilepsy, paralysis, and mental diseases.

We took the liberty to address several gentlemen, well known to the profession, on this subject, and requested them to give us their experience in this disease, so often leading to wasting paralysis, and to incurable infirmities. We most gratefully acknowledge our indebtedness, and we may be allowed to give some extracts.

Father Hering writes that he has treated cases of atrophic paralysis, and been most successful with Sulphur. When Sulphur failed he gave Psorinum. When something is gone, destroyed, it cannot, of course, be restored, and such cases remain incurable.

Dr. Adolph Lippe writes: "Cases of atrophic infantile paralysis only come to us from the physiological school, vulgo the common school of medicine. I never had a case in my own proper practice; we never can possibly reach that hopeless condition. As far as my own clinical observations go, I rely first on an improved

diet, the similar remedy, and an application of electricity to the suffering part of the body—the atrophic and paralyzed part.”

Dr. T. C. Duncan, of Chicago, writes: “I have very little to offer you on this very interesting subject. I think the only case I have seen was in the practice of a brother physician. I suggested Cina, according to the symptoms and friction, to keep up the nutrition of the leg and arm, which was affected. This case was congenital, but is gradually improving. Of course I, with others, have seen many a case of paralysis set in with hydrocephaloid and hydrocephalus, but the cases either die or the effect was only temporary, *i. e.*, continuing for a few weeks. In the former I looked upon it as due to anæmia, and bent all energies to nourish the system: ham, beef, eggs, milk; avoiding stimulants as such. The remedies given were selected for the totality rather than for this evidence of failure of the nervous system from lack of food. I did not forget that *fat* is the great element to nourish this system, and fat-transforming remedies, as Ars., Phosph., Sulph., etc., were selected, as they covered the case. I think that Arsenicum takes a deeper hold on the whole nervous system than any remedy I know of. Nux only seems to me to reach it *via* the muscular system. Phosphor, by tearing down the other parts to feed the blood with fat, and thus nourish it indirectly. Phosph. calc. reaches further; so Causticum, as a functional remedy, like Gels., helps in the up-grade of recovery. Among the two thousand odd children in the Home we have not had a case of paralysis to treat. Paralysis from hydrocephalus we have had. Have not heard of a case in either of the other children’s institutes in this city. I hope your article will be exhaustive.”

Dr. Carroll Dunham replies: “I have known of five cases, only one of which was under my care for any time. This case, in which the paralysis occurred when the lad was four years old, came into my hands from those of a distinguished New York surgeon, who on account of pain in the left limb had diagnosed morbus coxarius, and had applied a weight to the foot, which, instead of giving relief, caused agony, and this I was asked to relieve. I diagnosed special paralysis induced by lying on the damp ground. The pains ceased under Ledum and Lachesis, and the paralysis under Secale cor.²⁰⁰, which was indicated as much by the *diarrhœa* to which

the boy was subject, as by the paralytic symptoms. At first the limb was not at all sensitive to the faradic current. It subsequently became so. In a year the lad could walk, but the limb was then decidedly atrophied and shorter than the other. In two other cases, in which paralysis occurred in infancy, one I think in utero (never treated by me), the paralysis was confined to certain muscles of right arm and leg, but the atrophy of these extremities was general, consequently the hand and foot were both smaller and distorted."

"Prevention is better than cure." As the guardian of the little ones, which our patrons intrust to our care, it is our duty to look to it, that such an inherited dead weight will not poison through life the existence of a human being. It can be done by patient investigation and by most careful treatment. If it can be done, if deformities can be prevented, by early and long-continued application of hygienic and medicinal treatment, let us see to it, that it is well done, and the fruits of such labor will be the highest fee which any physician can possibly enjoy.

ARTICLE XVI.—Clinical Observations.

BY J. A. TERRY, M.D.

IN the following cases it will sometimes be noticed that the expressions, when describing the symptoms and sensations, are not in elegant literary style and correctness. This is due to the reason that I have endeavored to give the description of the cases as it has come from the lips of the patients, and have preserved almost their original integrity so as to avoid, perhaps, a misconstruction on my part of the real mode of feeling, and also to compare the correspondence that could be found between the symptoms in the *Materia Medica*, and the more common popular expressions of the patients. These being the first clinical results that are published by me, after some years of practice, I consider in place the preceding lines as an introduction of these cases and others that shall follow.

CASE I. COLICODYNIA.—Mrs. B., an old lady, seventy-eight years of age. For several days complaining of pain in both sides of the bowels, going round and back to the lumbar region, with considerable rumbling of wind. *Aggravation of this pain as soon as lying down at night, when going to sleep, when it becomes acute.* It is eased or ameliorated by rubbing gently on abdomen with hands, and passing inodorous flatus; gets better still by leaving the bed and *walking about the room.* The pain is located in the region of the ascending, transverse, and descending colon; the bowels are inclined to be loose.

Rx. Dioscorea vill.^{5c} (T.), four powders, one morning and night, cured promptly the case without relapse.

CASE II. CHRONIC ULCERS ON LEG AND DYSPEPSIA.—Mr. E. G., forty-four years of age, has been ailing for the last two years. The beginning of his disease was dyspepsia in an aggravated form, which lasted from five to six months; was treated allopathically with the bicarbonate of soda, pepsin, etc., and considered cured after that time. Very soon after, however, a thick eruption, like prickly heat, with great itchiness, appeared all over his body, and was treated *secundum artem* with external medication, producing the desired effect of *curing* the eruption. However, very soon after this treatment he began to notice the presence of a crop of small furuncles on left leg and some on the right. These furuncles softened and took the form of small ulcers, which coalesced and formed irritable ulcers that had lasted sixteen months in an aggravated condition. The treatment has been external applications and purgatives, making the leg *to look* somewhat better lately, but the *dyspepsia* has again returned with accumulation of gases and great repletion after taking a slight quantity of food; anorexia, much thirst, burning in the stomach, longing for cold articles of diet, like fruits and ice cream, rumbling of the bowels at night, bloating and obstinate constipation. The objective symptoms of the leg are as follows: It is covered up to the knee with ulcers of different sizes, discharging a watery-yellowish matter, with an eczematous eruption around them, and cedema of the ankle. Great itchiness and throbbing, worse at night, by rest, and hot applications. Feels better walking about and with cold-water applications or bathing of the parts.

R̄. Lycopod.²⁰ (T.), in water, a tablespoonful morning and night, cured this case from June 26th to July 14th (eighteen days), without any other trouble or relapse since 1874.

CASE III. CONJUNCTIVITIS AND LEUCOMA.—Mrs. A., twenty-four years of age, mother of three children, and nursing one at present, had some time ago inflammation of the right eye, with an ulcer on the cornea, which she healed with some remedy recommended to her by friends. She comes now to me with a milky, whitish spot near the middle of the right cornea, and the vessels of the conjunctiva injected, with chronic blepharitis ciliaris on both eyelids to add to her trouble. She sees with right eye as if through smoke or fog, and when looking towards the light lachrymation, and dizziness when stooping. Cannot fix the sight on any object steadily without water running from her eyes, and feeling of dizziness. Artificial light when looked at appears with rays all around it. Her eye symptoms are worse in the morning. Besides, she has bloating after meals, flatulence, obstinate constipation, and stools too large in size. Cracking now and then in the right ear, and expectoration of phlegm in the morning with a salty taste.

R̄. June 25th, 1874, Kali carb.²⁰⁰ (T.), one powder in water. July 1st, better, Kali carb.⁵⁰⁰, one dose on the tongue, and wait. July 14th, well, and remained cured of the eye, leucoma, and rest of symptoms, but the blepharitis was only ameliorated, and yielded afterwards to other remedies.

CASE IV. OZÆNA.—Mrs. B., aged twenty years, married, and mother of one child, has been complaining for months of a trouble in her nose, with the following symptoms: A discharge thick and yellowish; sometimes a greenish-looking scab is blown out in the morning with some blood and offensive smell. The scab seems to come from an ulcer in the Schneiderian membrane, though no examination was instituted. Pain in the root of nose, feels as if stopped up; hawking up during the day and in the morning of pieces of starchlike, grayish phlegm, with a salty taste. Oppression in the middle and upper part of chest; it feels as if a weight in chest, worse at night, in the morning, and in rainy or damp weather. Sometimes pain in left lower side of chest. She has noticed lately a *wart* on right ring finger, and says she had others when a child.

April 20th, 1874, Natrum sulph.²⁰⁰, three powders, and Sac. lac., nine powders. May 18th. Much better; Natrum sulph.⁵⁰⁰, two powders, Sac. lac., ten powders. June 12th. Reports feeling almost entirely well, for only a slight fulness on bridge of nose remains. The wart was gone.

CASE V. CHOREA.—Mary E., nine years old, fleshy, lymphatic temperament, and anæmic, has been suffering since four months with irregular, constant movements of the right arm and leg, and is unable to walk or feed herself. Speech difficult and tongue heavy; epistaxis often; starting during sleep, which is of a light nature; great thirst; inclined to constipation; good appetite; changeable mood; any observation or steady look was enough to make her cry. Dragged the leg when trying to walk, and is getting from bad to worse.

R_y. February 5th, 1873, Tarantula³⁰, three powders, one every third day. February 28th. The father reported that she is much better. Could walk a little, and feed herself with some difficulty. Tarantula³⁰, one dose. March 10th. Still improving; Sac. lac. After two months I saw the child again, and found her entirely cured.

CASE VI. IRRITATION OF THE MENINGES IN THE CERVICAL PORTION.—Mr. James S., forty-seven years of age, married twenty-four years, spare habit, nervous temperament, has been suffering longer than six months with a dull pain in the nape of the neck; sometimes it increases until becoming acute, with the sensation of numbness, heat, and heaviness like a weight. The pain is located about the sixth cervical vertebra, and extends upwards and down to the shoulders, always with a feeling of *aching, numbness, heat, and weight*. Eyelids feel heavy also, sometimes, as if he could not open his eyes. Soreness on the top of the head, he can scarcely use a hair-brush. Pain in the neck is worse in the afternoon, about two or three o'clock. Better by rest and outdoors; worse when working, or getting tired when walking. Besides the above symptoms he has a pain in the pit of the stomach, which he feels about midnight, with bloating, relieved by eructation of flatus. Food feels heavy after eating, particularly in the evening, during and after taking his tea; appetite poor, and bowels regular.

August 29th, 1873. R_y. Paris quadrif.²⁰⁰ (L.), three doses, and

Sac. lac., eleven powders. Cured in a week's time permanently up to date.

CASE VII. Mrs. P., thirty years of age, married, dark-complexion, with jet-black hair and eyes, of nervous temperament. Has recovered two months ago from an abscess in the right broad ligament, with severe peritonitis, which was treated by the allopathic system. She thinks her last illness was induced by the use of injections to cure a leucorrhœa, and has decided to try homœopathy for a quotidian intermittent fever. It is but a few days since she has come to Bath, L. I., to spend the summer, and has caught this fever, which she also had some years ago in the Island of Cuba. Complains of chills beginning in the evening in the middle of back, descending to the feet by the posterior or back part of the body and limbs. The ends of fingers and nose become very cold. She feels sad, with inclination to cry; likes to be uncovered, and is troubled with desire to urinate often, in small quantity, strong smell, and much straining and burning; this stage lasting about half an hour. The fever stage is not very marked, the skin does not become very hot, but feverish; inclination to sleep very sound until morning, when she sweats very copiously, particularly in the cerebral and epigastric regions, attended with some thirst. Apyrexia. Pain in the right hip, descending to the knee and heel, as if in the inside or interior of the bones, alternating with lancinating pains in the uterine region, coming and going off suddenly. Yellowish leucorrhœa, vaginitis, and itchiness in the vulva. Great thirst; annoying redness of the point of nose; bearing down, as if a weight in the uterus; want of appetite; weakness; easily started, and inclined to tears. R_x. June 16th, 1873. Nitric ac.²⁰⁰ (T.), two powders, and Sac. lac., six powders. June 23d. Much better; no more chills or fever since second day of taking medicine. Nitric ac.⁵⁰⁰, one powder to take if feeling bad again, and Sac. lac. June 30th. No more fever since, but took the dose of Nitr. ac.⁵⁰⁰. July 8th. Considers herself well, and was discharged. The leucorrhœa remained in a mild form, and the vaginitis was renewed some time after by excess in sexual indulgence, but did not cause so much trouble as before; the Nitric ac. always controlled since. The redness of the point of the nose disappeared

entirely. Was this intermittent fever, of real *malarial* origin, or was it *symptomatic* of the uterine, vesical, and vaginal trouble?

CASE VIII. INTERMITTENT FEVER.—Miss E. B., æt. twenty-seven years. Has had this fever in the South for one year, and used a great deal of quinine for it without being able to stop it entirely. The type is irregular, and the stages incomplete. The following are her symptoms :

Chill begins generally around the umbilical region, and sometimes also in the tips of fingers. Sensation of coldness, like a piece of ice, between scapulæ, relieved by heat. These symptoms last a very short time, about two minutes, then comes the fever heat, lasting for half an hour to one hour, and then comes the chill again, no perspiration following. Feels chilly always; a draught of air, or dampness will reproduce the chilly feeling, which is relieved by heat from coverings. Drinks very little; water disagrees. Bad, flat taste all the time in her mouth, worse in the morning when awaking. Menses regular in time, but scanty; feels like crying often, and gets worse of her symptoms by heat of stove, kitchen, or sun. R̄. July 22d, 1872. Pulsatilla⁵⁰⁰, four powders, dry, and Sac. lac. in water. July 28th. Had chills only once since. Complains of pain in the limbs, as if the bones and joints were rheumatic, getting worse when weather is going to change, and better by keeping quiet. She is worse of these pains morning and night, better by taking a cold bath. The pains fly from one place to another. Were these new symptoms the effect of the four doses of Pulsatilla? If so, why not an aggravation of the other state? R̄. Pulsatilla^{65m} (F.), one powder on the tongue, and Sac. lac., two powders in water.

August 16th. Has been much better, no chills or fever, but took cold while taking a sea trip, and the *rheumatic symptoms* reappeared. R̄. Pulsatilla⁵⁰⁰, two powders, and August 25th, feeling well, a dose of Sulph. to finish up the cure, which resulted complete to this date.

CASE IX. ASTHMA.—Mrs. M. T., seventeen years of age, married, thin, delicate, and petite, of frail constitution, and of nervous temperament. Since *nine* years has been affected with symptoms of asthma, the sequel of an attack of pneumonia she had when a child, and which was treated by allopathy, which has exhausted after-

wards all its resources to cure this sequel without any favorable result. A change of air was advised, and from Cuba came to New York, but in two years no change for the better. As a last resource homœopathy was thought of, and being called, found the previous history, and the following symptoms :

As soon as lying down at night she feels an oppression in the chest, the breathing becomes short, and she is obliged to sit up in bed, or lie with the head raised high with pillows. The time of the access and aggravation is generally after midnight, being obliged to get up and warm some coffee, or sugar with water, to drink, after which she gets easier. These symptoms are aggravated by the air, and by going up stairs, which makes her pant for breath. She is, besides, nervous, gets frightened and starts easily, and is afraid of being alone. Her courses appear ten days too soon, last from four to five, and are profuse. She faints often, proceeding from the pit of the stomach, with cold sweat, and dizziness when stooping. R_x. October 4th, 1872. Arsenic^{43m} (F.), five powders, one every night. October 10th. Worse, and alarmed. I ordered a tablespoonful of strong black coffee, and Sac. lac. April 15th, 1873. Saw the patient again, and found her in the family way ; she told me that since my last visit she has been entirely well. Up to date the asthma has not reappeared.

CASE X. INTERMITTENT FEVER.—Master William H., fourteen years of age, has been suffering for two months with malarial fever of the tertian type, complete in form, for which Sulphate of Quinine, prescribed by another doctor, has been powerless. He presents the following symptomatic picture :

Chill begins in the hands and feet, with no shaking, becomes general ; he likes to be covered up, though no relief is experienced from it. Before the chill, dull headache, which gets worse during the chill. There is no thirst in this stage. Chill begins generally about half-past five in the evening, and lasts half an hour. Objective symptoms ; paleness.

Heat is felt first in the face, and becomes general. The headache increases, and is very severe in forehead. Gets restless, with dry lips, bitter taste, and belching up of tasteless, inodorous gas. Passes water, high in color, which smarts and burns the urethra. He is very thirsty in this stage, drinking a cupful at a time, which

satisfies him for the moment. The fever lasts nearly all night. Objective symptoms: the face flushed; eyes reddened.

Sweat is not profuse, and takes place during the last hours of the fever; it amounts to a general moisture of the skin, which lasts more or less until the next paroxysm.

Apyrexia.—Thirsty all the time; anorexia; painless diarrhœa; and constant dull headache; hypochondriac mood.

November 3d, 1873. *R.* Natrum muriaticum,²⁰⁰ three powders, dry, in succession, and Sac. lac., ten powders, all morning and night. The patient got well without any more medicine. The subject being a boy, and not bright, could not give clearly his symptoms, though his mother helped me for the objective ones. I could not find any appreciable enlargement of the spleen. We are aware of the difficulty of radically curing intermittent fevers by any system of medicine, and particularly by the single homœopathic remedy; but if the above plan is adopted in the examinations of the patients, the task will not appear so ungrateful, and the selection will be rendered easier. The symptoms *during* the chill, fever, sweat, and pyrexia are to be taken separately, followed by the thorough search in the Repertory and Materia Medica for the similitum. It is a scheme which seldom fails, and prevents the hastily and untimely use of the quinine routine.

CASE XI. CHRONIC MUCOUS DYSENTERY.—Mr. Charles M., from Cuba, has been suffering for three months with dysentery, contracted in a filibustering expedition to that island, and presents the following symptoms: Complains of having daily from ten to twelve passages from his bowels of a yellowish phlegm, or mucus, accompanied with considerable tenesmus and pain. Before the stools there is *rumbling of flatulence*, with colicky pain or griping in the lower part of abdomen, and *emission of noisy, inodorous flatus*. During stool, great tenesmus and colic, with shuddering. After the stool, the tenesmus increases, with constant pain in the bowels, which lasts for a great while. His symptoms grow worse from five to ten in the morning. Feels very thirsty, and his appetite is very good, but milk disagrees and makes him worse. Sleeplessness at night, with inability to lie on the left side.

January 3d, 1873. *R.* Aloes Socotrina⁵⁰⁰, four powders, one every fourteen hours, and a strict diet. 5th. Great deal better;

no passage of mucus or tenesmus. Last night had three diarrhoeic stools, and one this morning with flatulence and some pain in abdominal region; gave him Sac. lac., four powders. 7th. Came to office and says his bowels have not moved since; Sac. lac. 15th. Saw him and found him well, with his bowels regular; gaining flesh.

NOTE.—The rumbling or borborygmus in the bowels and the passage of flatus *before* the stools is a characteristic indication for the selection of Aloes, either in dysentery, cholera morbus, or cholera infantum, that I have often corroborated.

CASE XII. COLICODYNIA AND METRORRHAGIA.—Mrs. Mary M., æt. twenty-three years; married about a year, comes to consult me and gives the following history and symptoms: Four months ago she miscarried in her third month; courses have appeared twice since, being regular in time; but they last two weeks, flowing scantily, and consisting of blood which is bright red in color. The miscarriage was produced by a severe blow she received on the abdomen with a bucketful of coal. Now the principal trouble is a *pain* from below the umbilicus (about three inches) up to the pit of the stomach, cramplike in nature, with sensitiveness to the touch, having it almost all the time, but gets worse from 4 to 9 in the evening, when it causes sickness at the stomach and she vomits a slimy substance with a salty, disagreeable taste, and gets very sleepy; the vomiting and sickness only taking place for the last two days. Feels worse after eating and when walking. Better in the morning, by drinking hot tea, and bending double and pressing on abdomen. Her appetite is very poor.

March 20th, 1874. R̄. Colocynthis^{3m}, two powders, dry, and Sac. lac. in water.

March 25th, 1874. Better. Colocynthis^{3m}, one powder, dry, and Sac. lac. in water.

May 7th (13 days). Has been feeling very well indeed, but the colic has come back since yesterday. R̄. Colocynthis^{3m} (F.), two powders, dry, Sac. lac. in water.

May 21st (14 days). Reports herself entirely free from the colic or pain; but she presents another train of symptoms, as follows: She says she has her menses every four weeks, but *very profuse* for five days, and can hardly attend to household duties; the

blood being dark in color and slimy, flowing more profusely at night when in bed and sleeping. Catamenia preceded two weeks by a severe pain in the small of the back. During catamenia a dull, *sickish* pain in pubic region, with bearing down pain, and aggravation of that in the back, which is relieved by the flow when it is very abundant. After menses, leucorrhœa, yellow and thick, and pain in small of the back for two weeks. All this trouble has taken place during her last two menstruations.

May 21st. R̄. *Sepia succus*⁵⁰ three powders, dry, one morning and night, and Sac. lac. to use afterwards in water. Did not see this patient again until October 16th, when she reported herself as entirely well from the last prescription, and became pregnant again. She reached the full term, and was delivered of a fine healthy child.

CASE XIII. ANÆMIC STATE OF THE BRAIN AND NERVOUS PROSTRATION.—Mr. Ammon S., thirty-two years of age, and a well-developed, strong-looking individual, of five feet four inches in height. Not inclined to consult the doctor and take medicines, but is coaxed by his wife to see me, and relates his feelings as follows: Two years ago in the West he was taken sick with peritonitis after having felt for a year tired and overworked in body and mind, and was treated by the old school. The convalescence was very slow and protracted, leaving him with a tired, weary sensation in the brain, with complete inability for any severe mental occupation, and with physical as well as nervous prostration. He adds that he cannot endure any kind of excitement, for it brings on physical and mental depression with weakness. Since that sickness he experiences a sensation in the forehead or front part of the brain like an inability to fix steadily the mind on any subject without it slipping from his retentive faculties or losing hold of the idea and getting confused; having also lost entirely his memory for dates. Inability and want of the proper will to subject the mind to resolve any difficulty or any subject that needs investigation and thought to understand it. Besides he is irritable, gets out of temper easily, and then his sight gets blurred, and his face becomes pale. With all the above, there is also a dry, teasing cough, to which he is subject now and then, but very persistent and annoying; worse when lying down and

when going out from a warm room to the air, and when changing position in bed at night. A pain in the left side (about the tenth rib) when coughing, but it is there all the time in a dull form. Sensation when coughing as if he must take hold of the abdomen, and feels as if the cough proceeded from there. His sleep is disturbed by nightmares. The skin is hot, burning at night when in bed. Chilliness along the whole back sometimes. Sexual weakness.

April 1st, 1875. *Rx.* Conium maculat.⁵⁰⁰ in several doses, dry on the tongue, at long intervals, cured promptly the cough, and the rest of his symptoms. He was a milk vender at the time, and had a great deal of open air exercise; having adopted this trade to rest his mind in hopes of getting well, but did not see any change for the better until he took the Conium; then he left the milk business, and began to work as a book-keeper, and when with arithmetical calculations the symptoms threatened to return, they were soon put to flight with the same medicine.

CASE XIV. GONITIS.—Mary F., a nurse and servant, of forty-six years of age, robust, clear complexion, healthy appearance, and having had the change of life two years ago. She enters my office limping, and gives the following history: Nine years ago was confined for three months in a hospital at Buffalo, N. Y., with the same knee, which was then very much swollen, being larger than a child's head and very painful; for the cure of which blisters were applied, and morphine and opium used to make her sleep at night. Besides she has had chills and fever, until the change of life appeared, and has taken a great deal of quinine for it. Otherwise healthy. Now she seems to be getting the same trouble again with the same knee, and wants to know if I can cure her so that she would not lose her situation. The affected knee is red, swollen, and painful to handling. It has a doughy feel, and the presence of synovial fluid into the cellular tissue around it is apparent. It measured 16 inches in circumference, while the right was only 13½. She feels worse at night in bed, when it burns and itches; gets better by moving about, and worse when keeping quiet, with stiffness when beginning to move. All the other functions normal, and no other subjective symptoms. I decided to begin the treatment with Sulphur^{81m}

(F.), two powders, and wait with Sac. lac. She got entirely well from October 29th, 1875, to November 9th, 1875, when the last placebos were given. No local treatment.

In another case of gonitis, in a young man, where a suppression of gonorrhœa was the exciting cause, the swelling was pale, great stiffness, aggravation at night, sensation of heat in the affected part, painful to touch, sweaty skin, restlessness in bed, and amelioration by warmth. I prescribed *Silicea*²⁰⁰, in water, and the case was cured in less than a week's time, without local treatment.

CASE XV. METRORRHAGIA THREATENING MISCARRIAGE.—Miss Rose L., twenty-two years old, a thin, delicate female, of nervous temperament, forsaken and unhappy. She is about seven months pregnant, and has had considerable morning sickness, with loss of appetite, and diarrhœa. Some blood has passed at intervals of two and three weeks, not to any alarming degree, and stopping *per se*. Was called in a hurry to see her on November 13th, 1875, at 6 P.M., and on arriving at her bedside, I found her with a profuse metrorrhagia and diarrhœa, the flooding getting much worse by moving or going to the chamber, when it would flow profusely, and was of an arterial color. Complains of constant pain from the sacral region to the pubis (across). The child has not moved since two days, being previously very lively. Her face is pale, and she begins to feel faint. An examination per vagina revealed much heat and throbbing, with sensibility, the os dilatable and patulous.

Rj. *Sabina*²⁰⁰ (T.), in water. Two teaspoonfuls every half hour stopped the hæmorrhage before three doses were taken, and the diarrhœa also ceased next day. She was delivered two months afterwards of a healthy child, though small in size.

CASE XVI. EPISTAXIS.—Mrs. M. De R., in her fiftieth year, robust, and of sanguine temperament. Always has enjoyed good health, and had the change of life with little inconvenience two years and a half ago. Was called at 9 P.M. in the evening to see this patient, who had been bleeding from her nose since half-past 6 P.M., stopping for awhile at half-past 7 and beginning again to bleed profusely at 8. The blood was incessantly dropping from both nostrils, and accumulating also in the naso-

pharyngeal space, being obliged to hawk up and spit often an arterial blood of the same color and kind as that which flowed from her nose. The hæmorrhage was active in type, and she was bathing her face and forehead with cold water, being obliged to often renew it on account of getting too much blood in it. Without giving any medicine, I proceeded to apply pressure on the upper lip and angle of the nostril externally with my thumbs, trying in that way to compress the superior coronary and septum nasi arteries, but the blood began to flow then through the posterior nares into the pharynx, causing a choking sensation, and I desisted. Then I thought of Belloc's canula for plugging the nostrils, but, before going for it, I took half a glass of water, and prepared a solution of Cinchona^{97m} (F.), in pellets, and gave three teaspoonfuls to the patient, and intended with watch in hand to repeat at the end of ten minutes, but my surprise was great to notice the hæmorrhage had stopped entirely in *eight minutes*. However, I ordered then two teaspoonfuls to be taken every two hours, to avoid hot beverages, and keep quiet. There has been no recurrence since then, a year now since the accident.

(To be continued.)

ARTICLE XVII.—The Vaso-motor Apparatus.

BY I. S. P. LORD., M.D.

(Continued from page 218.)

“WE will next speak of the physiological and pathological changes caused by alterations of the vascular tone through the influence of the vaso-motor apparatus.”

In regard to the pain and constipation in lead-colic, he repudiates the old doctrine of spasm of the muscles of the intestine, and claims that we know nothing very satisfactory about it, but believes that the most acceptable hypothesis would be to “attribute it to a simple modification of the circulation of the intestine through the intermediation of the vaso-motor nerves.”

The theory of a paralysis of the muscular coat is quite as untenable as that of spasm, though it has been suggested that the

lead might act as an excitant on the moderator fibres contained in the splanchnic nerves, and so cause a relaxation of the muscular coat of the intestine. The constipation would then be owing to the lack of expulsive force. Again, it is quite possible that the lead acts on the secretory nerves. That there is a lack of secretion in the intestine is quite certain, as the stools are usually hard and dry. But it has not yet been demonstrated that there is spasm or paralysis in lead colic, though the last is quite probable.

In the *Symptomen Codex*, page 543, vol. ii, we find the following observation: "The primary effects of lead are characterized by increased sensibility and spasms, and, after a shorter or longer space of time, exhibit an opposite character, that of local and general neuro-paralysis arising from *impoverished nutrition*, and principally to decomposition and degeneration of the nervous substance."

These are the results of the action of lead on some portion of the nervous system, that modifies the action of the secretory nerves or the glands or both. The action of lead otherwise than in lead-colic is not now in question. It will be seen, however, that there is no essential difference between a "modification of the circulation" through disorder of the vaso-motor nerves, and "impoverished nutrition" from defective circulation.

[From a careful examination of the toxic effects of lead we are inclined to the opinion that it acts first on the motor system from the anterior column of the spinal cord, thence on the vaso-motor (the constrictor), and the immediate result would be impoverished or certainly deficient nutrition and subsequent paralysis.]

The rôle which the vaso-motor nerves must play in diarrhoeas cannot but be important. In a normal state they should have a very considerable influence on the functional phenomena of the intestinal mucous membrane, and of course on those of digestion.

In certain disordered conditions there is an exaggerated flow of fluids into the intestines and the result is diarrhoea. This rapid and considerable flux from the mucous membrane implies "the intervention of a functional disturbance of the vaso-motor nerves." The first known experiment made to determine the mechanism of diarrhoea was by M. Budge, who removed the solar plexus. "If

the animals survived the experiment forty-eight, thirty-six, or even twenty-four hours, they would be taken with a diarrhœa, in part serous and in part mucous, perhaps mixed with blood."

This experiment has since been repeated by others with the same result. "How is this result produced?" It is certain that extirpation of the ganglions of the solar and cœliac plexuses will cause a dilatation of the vessels of the intestines, sometimes so great as to be followed by exudation of red blood. This blood stasis is analogous to œdema, "but instead of infiltration into the intestinal cellular tissue, there is an exudation of liquids into the intestinal cavity." It is really in consequence of a secretory excitation which determines a more abundant flow of the liquids usually secreted by the glands of the intestines, and as there is no inflammation in these experimental conditions, it is probable that this secretory irritation is the principal agent in producing this result. Ordinarily diarrhœa is, for the most part, due to reflex action.

"In enteritis, for example, it is an irritation of the mucous membrane which determines by reflex action a greater vascularity of the intestine and an increase of its secretion, and, as a consequence, the production of a greater quantity of fluids than in a normal state—a diarrhœa.

"It is certain that, in these cases, the vascular dilatation is secondary. The primary cause is irritation of the epithelial elements of the mucous lining of the glands."

Diarrhœa, due to the influence of cold, is also the result of a reflex action, but less simple than that from enteritis. "The initial impression is on the skin. The abdominal and intestinal ganglionic plexuses are stimulated in a special manner by a reflex excitation coming from the spinal cord, and the functional activity of the secretory element of the intestinal mucous membrane is increased at the same time that the vessels of the intestine become dilated." And here it is quite uncertain whether the reflex excitation strikes the sympathetic nerve ganglion in relation with the nerve-fibres of the intestine directly, or acts first on the intestinal mucous membrane, causing an irritation which becomes the starting-point for a new series of reflex actions, secretory and vaso-motor, operating through "the mediation of the ganglions of

the plexus of Meissner and d'Auerbach, and those of the solar plexus and the ganglions that give origin to the splanchnic nerves." By an analogous mechanism the diarrhœa of dentition, and nervous or emotional diarrhœa may be explained. Animals as well as men are liable to this last condition. The mere fact of commencing a vivisection on a dog will sometimes cause a sudden and very considerable diarrhœa.

Now fear is an encephalic phenomenon, and appears to depend especially upon a specific functional disturbance of the annular protuberance and cerebral peduncles. Take away any portion of the brain, except these last, and the animal is still susceptible of fear. Remove them, leaving the brain otherwise intact, and he fears no longer.

Under the influence of a functional disturbance of the annular protuberance, a peculiar or specific excitation might be transmitted, even to the thoracic and intra-abdominal plexuses, through the spinal cord and roots of the great sympathetic, and the functions of the vaso-motor and secretory nerves might suffer the modifications which cause a diarrhœa.

A nervous diarrhœa from mental emotions is probably produced by a simultaneous irritation of both orders of nerves. "For if there had been only a simple irritation of excito-secretory nerve-fibres," says the author, "without dilatation of the vessels, it is incontestable that the secretion, if it took place at all, would not be abundant. If, on the contrary, there was a concomitant dilatation of the vessels, the blood thus circulating in greater quantity, one can readily believe that the secretion would be more abundant. It seems then, that in these cases the diarrhœa may be the result of an excitation of the vaso-motor and secretory nerves of the intestinal mucous membrane. And we shall be compelled to admit the intervention of a suractivity of the secretory nerves in those cases of diarrhœa which, superficially examined, seem to depend entirely on a paralysis of the vaso-motor nerves. I now allude to the experiments of M. Budge."

"Is it in the same way we should interpret the results of the experiments of M. Armand Moreau?" This physiologist proved that when one ties a loop of the intestine, a foot or more in length, at either end, and then cuts all the nerves furnished to the part

included between the ligatures, then will follow a very abundant secretion (from three and a half to ten ounces) of liquid matter into the cavity of the isolated intestine. This liquid is more like that of a serous diarrhœa than the normal contents of the bowels during digestion. In the author's experiments, besides other matters, there were albumen, epithelium, leucocytes, and blood, and in all cases a well-marked congestion of the intestinal walls. It is clear then that it is not a simply increased secretion of the normal fluids of the intestine as M. Moreau believed. Nor is it the same liquid that we find in an ordinary diarrhœa. A careful examination of the intestine in these experiments will show that there is a real inflammatory process modifying the results, but certainly does not indicate, much less prove, that diarrhœa is usually a consequence of a disturbance of the vaso-motor nerves alone. Nor is it yet known that a simple paralysis of the vaso-motors alone will, in man at least, cause, or be followed by, a serous diarrhœa analogous to that caused by lesion or compression of the vena porta.

More is required, to wit: exaggerated secretory activity of the glandular nerves of the intestines. [The idea of passive diarrhœa, though very common, is no doubt erroneous. Passivity does not belong to living organic processes.]

The action of purgatives may very properly be considered here. Everybody is familiar with the idea and speaks of purgatives and purging, and yet but little is really known of the action of purgatives, though some experiments have been made to determine it. The opinion that numbers most partisans is, that purgation, at least by saline purgatives, acts by osmosis on the liquids of the organism. "Put, for example, into the intestines a solution of sulphate of magnesia or soda. This liquid very much exceeds in density the blood circulating in the vessels, and will have all the conditions of an exosmotic current from the blood into the intestines." Another theory has recently been substituted for this which assumes to explain the action of all purgative medicines whatever.

It presupposes that there is a continuous secretion of fluids into the intestine in a normal state, and as incessant a resorption of them. Now if the muscular movements of the intestinal tube

become more active and energetic from any cause whatever, these fluids will be pushed along the small intestine towards the large, and so on down and out at the anus without remaining long enough to be taken up into the circulation or absorbed, so that purgative medicines, according to this theory, act, not by increasing the quantity of liquids in the canal, but by causing the rapid expulsion of what is already and normally there though irritating the muscular coat of the bowel.

Thiry was the first physiologist who first clearly formulated this singular theory. Others have adopted it, and recently it has been defended and more fully and definitely developed by Radziejewski.

It is incredible that purgative medicines should have no other action on the intestines than that of provoking the peristaltic movements. No one can believe that the rapidity of these motions could prevent the resorption of liquids secreted normally and unintermittingly into the intestinal cavity. All such affirmative assertions are absolutely destitute of proof, are manifestly inexact, and not even supported by the results of his own experiments.

These results do not prove that the peristaltic action is more energetic or specially increased during the action of purgatives. Nor do they prove that the secretion of the intestinal juices is continuous. On the contrary, it is quite certain that it is, at least, remittent, that it is very copious during digestion, and there is little or none in the interval. How are we to explain the abundant and numerous stools that so often follow the use of a purgative?

M. Thiry's theory is so unsupported and irrational that one can scarcely conceive how he could venture to enunciate it.

Nor can M. Moreau's be accepted. The author's reproduction of M. Moreau's experiments led him to conclude "that the presence of sulphate of magnesia or the purgative salts in general in the intestine, provokes an abundant secretion of liquids. This is incontestable." It is not an exaggeration alone of the peristaltic motion, if indeed any such increased activity really exists. The principal phenomenon is a considerable afflux of fluids, entirely morbid, into the intestinal cavity, and this afflux is determined by the contact of saline purgatives with the mucous membrane of

the intestine. And not only do they act thus on the lining membrane of the intestine, but a powder of sulphate of magnesia or of soda laid dry upon the bare skin of a living frog will soon cause a considerable exudation. Any purgative salt will do the same, and so will the resinous powder of jalap. The intestinal mucous membrane of a dog has yielded the same result when the pulverized drug was applied, and the effect was even more marked at a distance from the point of application.

Radziejewski experimented on dogs with various purgatives. A chemical examination of the diarrhœic fluids caused by Sulphate of Magnesia, showed that they contained very nearly the same substances as normal fecal matter, except that the substances might be considered as coming from the superior part of the intestine. There was more water in them than in a normal state.

Calomel caused diarrhœic stools, but without any indication of exaggerated biliary excretion except in one case. He also tried Castor and Croton oils, Senna, and Gamboge, and nothing found in the stools indicated any special action of either as differing from any other.

He never saw a trace of unaltered bile in stools from Senna or Gamboge, but has found indications of it in those from Croton and Castor oils. Peptones were present in almost all cases, and sometimes ferments. After the use of the oils, undigested muscle-fibre was sometimes noticed in the stools.

Finally, purgative medicines introduced into the veins of dogs produced stools rich in intestinal ferments and unaltered bile, and from such premises he drew the conclusion that such stools were not the products of transudation, but only the ordinary contents of the intestinal canal.

We have seen that M. Moreau controverted this by showing that less than an ounce of a watery solution of Sulphate of Magnesia, injected into an isolated portion of the small intestine, was increased in a short time to more than twelve ounces. Of course this must have resulted from transudation, as it was a portion about twelve inches long with a ligature at either end. From some similar and carefully conducted experiments of his own, our author concludes that a very weak dose introduced into the small intestine will produce very clear purgative effects; that

there is, meantime, no exaggerated peristaltic movements; that there is manifest irritation of the mucous membrane, extending from point to point as the solution of the salt spreads; that the resulting liquid is like that of intestinal catarrh; that drastic purgatives differ from saline in that the peristaltic movements are more prompt, occur sooner under the action of the former, and probably begin as soon as the fluids have acquired some considerable volume in the cavity. But under no circumstances have the movements been energetic enough to warrant the muscular theory of M. Thiry.

Purgatives may be said to produce a rather intense but transient intestinal catarrh, characterized, at first, by a very bright redness and a thickening of the mucous membrane, an active or acute congestion, general or in patches, and equally characterized by the constitution of the secreted liquids. The congestion sometimes extends to the subperitoneal connective tissue; at least our author has observed it in some of his experiments. But the contact of the air, when the abdominal parietes were laid open, may have contributed to this last congestion. This congestion, however, remains after death if the animal is killed suddenly by section of the medulla oblongata.

We have not enumerated all the substances found in the stools after the experiments, but we may assume that purgatives cause a real artificial intestinal catarrh, and when Sulphate of Magnesia was used, a large part remained in the intestines when the animal was killed after some hours, while some of it seems to have been absorbed, as it was found in the urine.

The congestion of the mucous membrane then does not entirely prevent the absorption of the salt; and probably this is true of all the saline purgatives, and possibly may be of all others.

Now, in order to verify his theory of the mechanism of purgative action, our author modified his experiments on dogs so as to assimilate the conditions as much as possible to those of human beings submitted to the action of purgatives.

He introduced into the stomachs of dogs, by means of a tube, Castor oil into one, Sulphate of Magnesia into another, Sulphate of Soda into a third, Jalap into a fourth, and Calomel into a fifth, etc. In all cases there was purging, but later more tardy than

when these substances were introduced directly into the intestine, mainly, as he thinks, because they pass little by little and slowly from the stomach into the duodenum; and it is probable, also, that a part of those which can be absorbed are taken up from the stomach into the blood to be eliminated by the kidneys.

The urine in man always contains more magnesia two or three days after purging with the sulphate than in a normal state. The intestinal mucous membrane presents the same pathological characters when the purgatives are taken into the stomach as when put directly into the intestine, uniformly those of a catarrh. And we can hardly be surprised at the very large quantity of fluids sometimes evacuated, when we consider the amount that the nostrils sometimes pour out in simple coryza, and also the very limited extent of the nasal mucous membrane as compared to the small intestine. And yet the coryza is the result of simple irritation, though the character of the product is very different from that of the ordinary secretion. Indeed, it contains but little of its ordinary mucus, while there are a much greater number of leucocytes than in the normal state. It is a singular fact, however, that when a diarrhoea occurs in dogs through fear, as sometimes happens, just before they are operated on for experiments, the contents of the intestine and the condition of the mucous membrane are very analogous to what they are after purgation with neutral salts or drastic purgatives. It has been claimed that there is an increased secretion and afflux of pancreatic juice and of bile in consequence of the use of purgatives; "but," says our author, "so far as the pancreatic juice is concerned, I have noticed no indication that would allow me to presume that a greater quantity was then poured into the intestine than in a physiological condition."

In one case only did he find any disturbance of the pancreas, and that was a dog in which the pancreas, examined at the time when the diarrhoea was progressing, appeared strongly congested. As to the bile, there was sometimes a very little and sometimes a great deal of it. In a dog purged with Calomel the intestine contained a larger proportion of bile than in a majority of the cases.

"The theory which I propound to you," says our author, "rela-

tive to the mechanism of the action of purgatives, affords, it seems to me, more than others a satisfactory explanation of the incontestable utility of purging in cases of gastric and gastro-intestinal obstructions [or derangements]." It has already been shown to be "a subacute intestinal catarrh of the mucous membrane of the digestive canal." "Now, if the theory which I maintain is correct, the effect of purgatives is to substitute an active artificial catarrhal irritation for a spontaneous one. It is, in fine, a particular case of substitutive medication; and how can other theories account for the happy effects of purgatives administered in these morbid conditions? If purgatives act as I hold by determining an intestinal catarrh with secretion and exudation of an abundant quantity of liquid, this effect could only take place rapidly by means of a dilatation of the vessels of the mucous membrane, a dilatation produced simultaneously with an irritation of the glandular and interglandular epithelial elements. This vascular dilatation is evidently effected through a reflex excitation of the vaso-dilator nerves of the intestine. The effect of purgative substances implies then the intervention of vaso-motor nerves."

In order to obtain the action of purgative substances, it is absolutely necessary that they be brought in contact with the mucous membrane of the intestine. When introduced in any other way than by the alimentary canal, they can determine a purgative intestinal catarrh only on condition of being brought into the intestine by the circulation.

M. Claude Bernard, in investigating the theory of purgation by osmosis, said, that "the sulphate of soda introduced directly into the veins purges as well, and even better, than into the intestine;" while M. Rabuteau obtained no effect from an injection of half an ounce of that salt in solution of an ounce and a half of water into the crural veins. He adds, that it even produced constipation, and there was absence of thirst for some time. Now, as he holds that purging determines the exosmose of the circulating fluids into the intestinal cavity, the constipation and thirstlessness would require an inversion of the process, and the osmotic current would flow from the interior of the digestive canal towards the blood circulating in the intestinal mucous membrane.

So he would explain the constipation and disappearance of thirst. These experiments do not prove much in regard to the constipation and thirst, but are very convincing, so far as negative results are concerned. MM. Jolyet and Cahours also experimented with both Soda and Magnesia, and though they procured diarrhœic alvine evacuations somewhat tardily, they did not consider them as due to the purgative action of the salt injected.

Our author has made similar experiments under more favorable conditions, and yet an injection of more than half an ounce of Sulphate of Magnesia into the crural veins of a dog did not cause, at the end of two hours and a half, any recognizable morbid phenomena, nor was there any stool the next day. The next day the animal was examined, and some hardened matter was found in the intestine, but no indication of catarrh of the mucous membrane.

The results of the experiments made by different physiologists are very contradictory and unsatisfactory; but it is quite certain that purgative salts, injected into the veins, do not determine the same purgative diarrhœa which follows their direct introduction into the alimentary canal; and it is the same when they are injected into the subcutaneous cellular tissue. But though there was no laxative effect or other intestinal disturbance in our author's experiments, he yet noticed in one case an extensive purulent and œdematous infiltration in the place where the injection was introduced under the skin; and he thinks that this condition favors his theory, to wit, "that purgative salts act or purge by determining a transient irritation, *subinflammatory*, as it were, of the intestinal mucous membrane." Later experiments, by M. Luton, seem to indicate that a hypodermic injection of one or two grains of the salt will cause diarrhœa, or at least loose stools. Our author concludes from this, that a strong solution of the salts cause so much local inflammation as to prevent absorption, and so none of it gets into the circulation, or at least not enough to get to the intestinal mucous membrane, and produce diarrhœic stools.

To test it, he repeated Luton's experiments on dogs without effect. Luton experimented on himself and hospital patients. No doubt there is much difference in the effect of the same

quantity on man and on dogs. One thing, however, may be regarded as certain,—when purgatives are introduced under the skin or into the veins, they do not act, at least generally, as markedly on the intestinal mucous membrane as when taken into the stomach. The manner of performing the experiment also materially varies the results. The real mechanism of purgative action is this, in brief: Purgatives, introduced into the alimentary canal, act by irritating the mucous membrane.

“This irritation determines modifications of the intestinal epithelium and excitation of the peripheral extremities of the centripetal intestinal nerves. This excitation is borne along to the intra-abdominal and inferior thoracic nerve-ganglions (ganglions of the solar and mesenteric plexuses, ganglions of Meissner and d’Auerbach); then it is reflected by the vaso-motor nerves upon the vessels of the walls of the intestines, and by the secretory nerves upon the anatomical elements of the mucous membrane, among others upon those of the glands of Lieberkühn.

“It results in a congestion, more or less active, of the intestinal mucous membrane (a reflex vaso-dilator action); a desquamation of epithelium, with rapid and abundant production of mucus, and diapedesis (or not) of leucocytes; and an active secretion of intestinal juices, with which is mixed, without doubt, in certain cases, the products of a profuse transudation, consisting principally of water and of certain salts of the blood, and due to an exaggerated and morbid process of which the elements of the [mucous] membrane are the seat.”

This seems to be all that is essential to the mechanism of purgative action whatever drug may be used. Of course, there are many incidental phenomena, of which colic is perhaps most prominent. This is caused by a transmission of the excitation to the spinal cord, and some purgatives are much more likely to cause it than others. Certain experiments of M. Moreau seem to indicate that the presence of morphine in the blood counteracts the action of purgative salts, by preventing exosmose, as he thinks. This conclusion is evidently erroneous.

Buchheim and Wagner had previously observed, in experimenting on themselves, that Sulphate of Magnesia did not act as a purgative when they were under the influence of Opium; and

that the salts were eliminated by the kidneys; while the urine contained but little more than a third of the quantity when they did not take Opium, though the same quantity of the salt was swallowed. "It is known that Opium and Morphine act favorably in diarrhoea, and may even cause it to cease." What is the mechanism of the action of these substances? Do they act upon and diminish the excitability of the mucous membrane, or act specially on the glands, or on the ganglions of the various plexuses, or by modifying the function of the vaso-motor nerves? We know nothing about it.

Opium allays pain, but pain is only one symptom of the many. It is not the essential disorder.

In connection with this subject, the action of purgative enemata may properly be mentioned. It is very generally thought that their action is limited to the large intestine. One-third of an ounce of sulphate of soda dissolved in three and a half ounces of a strong infusion of senna, thrown as high as possible into the large intestine, has been followed by abundant liquid stools. The animals were then killed, and the intestines were opened, sometimes immediately, and sometimes six or seven hours after death. The large intestine was found congested in all cases, and in general contained only a very small quantity of liquid matter.

The mucous membrane of the small intestine was also very much congested, "and the congestion appeared especially intense in the duodenum and in the lower part of the small intestine." This mucous membrane (of the duodenum and ileum) was everywhere covered with a coating of thick, slightly yellowish, opaque mucus. There was some liquid matter, strongly tinted with bile, in the duodenum, and also in the lower part of the ileum. And finally, there was a vivid redness of the gastric mucous membrane, and in one case the stomach contained a muco-bilious liquid.

In a word, the mucous membrane of the small intestine presents modifications answering exactly to those which occur when a purgative salt is swallowed or in any way introduced into the stomach and small intestine, though they are much less striking. Sulphate of Soda seems to act more promptly than Magnesia, but the congestion is less. There is never much liquid found in the

small intestine after a purgative enema, and none of the drug has been detected there.

These facts, the author observes, must prove of interest to the practicing physician, inasmuch as he will be assured that the "effects of purgative enemata extend to the small intestines" (and even to the stomach), and he can thus explain the happy results which sometimes follow their use in gastro-intestinal derangements, or, in his own words, "He can also better account for the happy results which may be obtained, by the aid of these means, in cases of gastro-intestinal obstructions."

It may possibly be satisfactory to know that a purgative enema will extend its action to the duodenum and stomach, but it must be anything but pleasant to be assured that it *may*, and that a purgative *will*, evoke an actual "subinflammatory irritation," or, in plain English, a *bonâ fide* inflammation of the mucous membrane of perhaps of the entire extent of the internal surface of the small as well as the large intestine, which "irritation" may extend even to the liver, and pancreas, and mesenteric glands, and, by reflex action, to the spine and brain.

And this so-called "subinflammatory irritation," with its nausea, vomiting, pain, griping, "colic, diapedesis of leucocytes and blood-corpuscles, and abundant transudation of morbid liquids, and thick, yellowish mucus, and abundant desquamation of intestinal epithelium, and thickening of the coats of the intestines, with intense redness, and exaggerated morbid action in the gland-cells of the mucous membrane, including those of Lieberkühn," is evoked, "with happy effect," to become a substitute for, or to get rid of, a slight gastric disorder from cold or overeating, or to displace the more or less grave derangements of the digestive apparatus that precede typhoid, remittent, gastric, or other fevers, due to malaria or other causes.

One may well ask, if this "substitution of an artificial disorder," of so grave a character for one, usually, if not always, much less so, is rational medication?

And as to the "happy results," we have often, in our earlier professional experience, seen a serious and sometimes fatal typhoid fever "substituted" for a simple gastro-intestinal disorder by a single dose of a purgative medicine.

There is not a question but that, in those general or local disorders of abdominal organs characterized by congestion, nausea, vomiting, pain, flatulence, sensation of fulness, headache, etc., the so-called purgatives are the appropriate medicines, inasmuch as they cause pain, congestion, nausea, vomiting, etc. We repeat, to make it more emphatic, our proposition, that the medicines or drugs called purgatives, are unquestionably the appropriate remedies in simple gastro-intestinal disorders. But we should make a clear distinction between *purgative action* and the *action of purgatives*. Purgative action implies congestion, colic, diapedesis of white and red blood-corpuscles, denuding the mucous membrane of its epithelium, disorder of all the intestinal glands, subacute inflammation, in short, purging, with all its incidents, accidents, and concomitants, while the *action of a purgative* may be so graduated as to be imperceptible, and yet it is no doubt acting, as we shall see hereafter. It must be admitted that half an ounce of Epsom Salts, introduced into the alimentary canal, will produce very grave results. It has been proved that half that quantity would produce similar results, differing only in degree. Now, as the difference is only one of degree, down to the lowest point our author reached in his experiments, to wit, a grain and a half by hypodermic injection, who is prepared to say that half a grain, one-tenth of a grain, or one-thousandth of a grain will not act? The action would most likely be imperceptible, yet we cannot safely deny the possibility or even probability of its action. Who is prepared to prove that it ceases to act at any given point? The only legitimate question would be, will it act *sufficiently*?

A purgative, *i. e.*, purging, then, increases the existing morbid conditions, and aggravates the disorder. It never cures anything. After the storm is passed the grass may spring up again, and the prostrated trees may grow up again, and the houses destroyed may be rebuilt, but does the storm do it? The same agencies must be evoked to reproduce that first placed them there. After the violence of the purgative action has passed, it is quite possible that some specific action of the drug may have something to do with the cure, just as would have happened if a grain or a hundredth of a grain had been given in the beginning, and this would

happen through its specific action on the histological elements of the mucous membrane.

Our author verified the experiments of Luton, to wit, hypodermic injections of Sulphate of Magnesia, and admits that a grain and a half of the salt, injected under the skin, will be followed after some hours by diarrhœic stools. This amount does not cause local inflammation enough to prevent absorption, and so the salt gets into the circulation, reaches the intestine, and manifests its specific action. Now, to remove a congestion of the mucous membrane of the intestines, is it necessary that the irritation should be so great as to produce a diarrhœa?

The mental action of fear will cause a diarrhœa, with congestion, and vivid redness of the intestinal mucous membrane. If so, is it not quite possible that a much less quantity than a grain of the material, ponderable salt, might reach the mucous membrane, and act specifically upon it? But would it cause diarrhœic stools? We might ask, what has the abundant secretion or exudation of the liquids to do with the removal of the congestion?

Is it proved that the flux, the mere emptying of the vessels, will do it? Will that restore tone to the constrictors? Will the vessels contract at all until the *vascular tone* is restored? And, until that is restored, can they resume their normal condition and size?

The primary and essential condition of gastro-intestinal derangements is congestion of the intestinal mucous membrane. There can be no congestion without dilatation of the vessels. Our author's theory of dilatation is, that the vaso-dilator nerves, through the intervention of the neurine cells of the sympathetic ganglions, paralyze the vaso-constrictors, and so suspend the contractile power of the muscle element of the vessels, *i. e.*, the *vascular tone*. The vessels, having no longer the power to prevent the ingress of blood, or to expel it when there, fill up. Now it is manifest that any agent that will restore the *vascular tone* to the vessels, will remove the congestion. To do this, it is necessary to arrest the action of the dilator nerves, or increase that of the constrictors, or both. Anything that will do either will cure the disorder. An agent, to be appropriate, must act more or less directly on the seat of the disorder.

One can easily imagine that a variety of drugs and medicines might effect this. A purgative like Calomel or Epsom Salts might, by acting directly on the glandular elements of the mucous membrane, and thence through the secretory nerves on the vaso-motor (constrictor).

Nux vomica might, by a direct excitation of the spinal cord, send through the vaso-motors an excitation that would cause constriction of the vessels, and expulsion of their contents. But the mere expulsion will not answer. The *vascular tone* must be permanently restored, or the vessels will not remain emptied. There would be a constant leaking, which would be a diarrhœa, but the congestion would remain so long as the heart and large vessels furnished the blood to supply the waste.

So long as the vaso-dilator nerves continued in a state of excitation, the vascular tone could not be restored, and unless *Nux* could do away with this, it could not cure the congestion.

Opium might remove a congestion. It acts specifically on the neurine cells of the nerve-centres, by lessening excessive action (excessive granular motion of the cells).

(To be continued.)

ARTICLE XVIII.—*Thuja occidentalis*.

By DR. H. GOULLON, JR.

(From the Allgemeine Homöopathische Zeitung, Leipzig.)

(Continued from page 201.)

VIRCHOW speaks, in the case treated by himself, of enormous swellings of the cervical, jugular, axillary, and inguinal glands. Without any known cause, three years ago, a small swelling appeared under the left arm, slowly growing, then another one came on the neck, and smaller ones below the maxilla. Gradually they reached the size of a fist, were of a soft, flabby nature, painless, and covered by a natural skin. The patient died during 1854, after the swelling had broken under the right arm, and discharged over a pint of yellow, clear fluid.

Another case is equally interesting, inasmuch as Virchow is

made to acknowledge that the magnitude of the diseased organ stands in no constant proportion to the growth of the dyscrasia. A girl of 3½ years, who formerly suffered from rachitis, and lately from broncho-pneumonia, died with the manifestations of eclampsia, without having had diarrhœa; the liver was very fatty, and the mesenteric glands enlarged to the size of a hazelnut, tough, dense, grayish-white when cut through, and full of serous moisture; the glands of Peyer could be recognized as red swellings; copious catarrhal fluid in the small intestines; the solitary glands everywhere standing out like pearls; also chronic broncho-pneumonia on both sides; slight renal catarrh; rachitic bones, as if a healing process had set in.

The blood of leucæmic persons is *very rich in water*, but, in opposition to the hydræmic blood, its composition is normal in relation to its quantity of water, also, in opposition to the phlogistic blood, without increase of fibrin.

Whereas Virchow reduces the origin of leucæmic blood-changes to a diseased state of the spleen and lymphatic glands, he sees the characteristic of this disease in a numeric increase (hyperplasia) of its constituent parts, especially of the glandular cells (glandular granules, enchym-granules). After awhile the connective tissue may become increased, causing in the spleen hæmorrhagia in parts, producing in their retrogression colored cicatrices and wedges.

The change of tissue, considered by Virchow as leucæmic, does not always keep in the limits of old glands, but spreads itself in masses, so that *glandular parenchyma is met, where formerly glands could not be seen*. Autenrieth already knew this phenomenon as a criterion of sycosis, and concluded thereupon that a degeneration of glands is not the essence of this diseased form, whereas, *e. g.*, scrofulous glandular swellings always are found in the original glands, and whereas for the latter iodine and iodide of iron act admirably, they fail entirely in the former, and justly so, for in the lymphatic glands the leucæmic process begins at first in a peripheric group of glands, *e. g.*, in the axillary glands, then in those of the neck, inguinal, then those of the other side of the body, and finally, the internal glands. The former may reach

the size of a goose-egg, whereas the mesenteric glands swell up to packages of 1 to $1\frac{1}{2}$ foot in diameter.

The leucæmic glandular swelling differs also from the serofulous one, inasmuch as the former *never passes into suppuration*, for the blood circulates in it without hindrance; it can be moved about, is soft, flat, whereas the serofulous one is more hard and knobby, with a tendency to suppuration; we find in its surrounding the connective tissue increased, so that several glands grow together among themselves, and with the surrounding tissues.

Morgagni also connected knobby formations in the mesentery and inguinal glands with sycosis. He also knew the yellowish, clear fluid which they contain, and that they pass over into a slow suppuration. As they were seated either in the intestinal mucous membrane, or in the bronchi, or in the cellular tissue, etc., the seat and the contents of these sycotic forms must necessarily change. Their size varied from that of a head of a pin to most immense dimensions. They were painless, whether they were seated in the omentum, mesentery, intestines, kidneys, testes, ovaries, in liver, spleen, diaphragm, in the lungs, pleura, in the substance of the heart, cerebral meninges, nerves, or under the cutis. It was already known, long before Virchow, that these tumors especially appear on the neck and in the axillary fossa, and that they may be produced by catching cold, by overexertion (mechanical causes in general), or by mental impressions. The disease may also break out after preceding menstrual disturbances, etc. In the latter cases the glandular eruption might be considered a kind of crisis, containing quasi the *materia peccans*. Such sycotic formations were observed to pass off by themselves, and in their stead new troubles set in, *e. g.*, swelling of the spleen and liver.

Older observers consider as *prodromata of sycosis*: no desire for any work; excessive melancholic disposition; catarrhal affections, especially during moist weather and in spring, in every mucous membrane; some forms of curable laryngitis, considered by the physiological school as *phthisis laryngea* or *trachealis*, and treated as incurable; whereas the genuine *phthisis laryngea* is very painful (as by pressure on the larynx), the sycotic one gives at the utmost a sensation of constriction, no burning in the affected

parts, but we find constant hoarseness, frequent choking,* and the sensation as if a foreign body prevented the passage of air. With increasing hoarseness breathing becomes more difficult, the cough raw, whistling, and barking. The patient looks well, and has no fever, in spite of the excessive debility. Sudden suffocation (œdema glottidis) is also peculiar to this sycotic form. The hoarseness and the difficulties of breathing may not only be caused by ulceration, but also by the tuberos growths on the mucous membrane of the trachea, especially on its glands, by changes in the vagus and sympatheticus, which have been surrounded, as with a string of pearls, by glandular-like hard knobs.

Asthma, based on sycosis, is easily differentiated from other asthma. The patient has the sensation as if the pain, the anguish, etc., were really *seated in the chest*, and it is also characterized by its paroxysmal appearance, by the swelling of external glands during sudden simultaneous disappearance of the asthma. Where the glandular swellings are seated at the bifurcation, going upstairs, muscular exertion and mental emotion will cause a fit of asthma.

More frequently observed, and equally characteristic, are the sycotic exanthemata and ulcers. The sycotic exanthema possesses several forms: it may appear as partial, desquamating white spots, as itching-raised pustules, inclosed in a bright-red areola, and containing a light-yellow fluid, which, evacuated, forms dark-brown crusts, which soon fall off, or from the start, dry, hard nodules, of the bluish-red color. The former stand together in groups at the edge of the hairy scalp, on the chest, back, thighs; the latter may hold the same places, but appear especially on the knee, on the back of the hand, sometimes at the corners of the mouth, at the lower lip. They either ulcerate, or the discharged fluid becomes a dark-brown, fissured crust, or extensive rhagades form, or whitish-gray, mostly somewhat raised, little sensitive plaques arise in the cavity of the mouth, on the tongue, the inside of the cheeks, on the lips. *Such an exanthema never shows a coppery-red color.* A hair may appear in its centre, but it does not suffer, nor does it ever, or only exceptionally, attack the nails.

* Perhaps as a prodroma of the characteristic stenosis of the œsophagus, just as the hoarseness and the sensation of a foreign body may be considered analogous changes in the larynx and trachea.

The *condylomata* have a *pedicle*, whereas syphilitic ones are broad, cause falling off of the hair, with alopecia, and disfigure the nails. The sycotic nail is not finished; it looks fissured and insulated, rent to the very quick. The syphilitic disfiguration is a hypertrophy.

The ulcers belonging to the sycosis of the ancient, to the leucæmia of the latter-day physicians, are easily diagnosed. They arise from the exanthematic forms already mentioned, or a solitary one may appear on the neck, sternum, groins, axilla, upper arm, thigh, tibia, not rarely on the big toe. They have a terrible fetor, are superficial, and extend in breadth, and the surrounding tissue takes no part in it. Their base is blue, red, dark-brown, fissured, and from the fissures arise papillæ with white points. The edge is dentated, undermined. The ulcer on the mucous membranes possesses the same qualities, only it is of a lighter color, more pinkish. It mostly leaves callosities behind. They heal, left to themselves, only covered with moist compresses or lint, without any loss of substance, except that caused by the cicatrix, and the healing process always begins from the centre (indication for Arsen.). As soon as this happens, it takes on the character of the respective bodily constitution; according to its external form it becomes scrofulous, scorbutic, tuberculous, etc. A spontaneous cure at one spot does not exclude its reappearance at other times in another place, or, instead of an ulcer, another sycotic form may appear, especially in the spring or during wet weather.

On account of its close relations to preceding sexual diseases, we must especially consider the *sycotic ulcers of the cavity of the mouth*. Here, and in the fauces, they appear yellow, lardaceous, with a pink areola, and covered with a puriform mass, and extend rapidly, without causing loss of substance, or, rather, they compensate it by gray granulations.

The *nervous system* also deserves our consideration. Sycosis loves to attack the bones of the nose and of the buccal cavity, the fauces, upper and lower maxilla, sternum, sacrum, ribs, and the processus spinosi of the vertebræ, but only immediately through the soft parts and periosteum. *We always meet necrosis and sclerosis*, never caries, as in syphilis. And whereas in syphilis, scrofulosis, and tuberculosis loss of osseous substance is not repaired,

we find, after sycotic necrosis had run its course, always a new, dense, osseous mass. It is remarkable that sycotic ozæna gives no foul odor, whereas sycotic ulcers are characterized by their foul odor.

The ancient physicians considered rachitis, pædarthrocæce, enchondrome as characteristic of sycosis, but not the fragility of the bones. Stenosis in the urethra, œsophagus, larynx, trachea, rectum, or intestinal canal may also be considered as sequelæ of a sycotic state. If the latter localizes itself in the joints, we find mostly the knee or elbow attacked, or the lower maxilla and the joints of the spinal column. In case of ankylosis, the joint remains increased in volume.

The pains arise suddenly, and with excessive intensity, but there is no fever, and the skin does not change its color. Such an increase of volume, *i. e.*, enormous hypertrophy and induration, we also meet in the sycotic inflamed testicle (similarly to that of the inguinal glands). In relation to the organ of hearing, sycosis loves to attack the mucous membrane of the Eustachian tube, causing as usual blennorrhœic affections. Syphilitic patients, on the contrary, suffer more from carious degeneration of the bones of the ears, not only of the ossicula, but also of the bony texture of the Eustachian tube, and of the cells of the processus mastoideus.

The profuse, greenish, mucous secretion in inflammation of the conjunctiva, sclerotica, and cornea, with bright-red injection; the gelatinous secretions of the iris and choroidea are always of sycotic origin, also the ciliary and facial neurosis, appearing in the evening and caused by pressure of the bones. Trachoma, polypi, hydrocele, may also be included. Among the neuroses we find ischias, trismus, tetanus, epilepsy, eclampsia, paralysis, also a form of apoplexy, impotence, sterility, nymphomania, mental disease, helminthiasis, numbness of the extremities, scleroma of newborn infants, intermittent fever. Such a variety of diseased states reminds us of a saying by Kunkel, that nothing is more characteristic of sycosis than the variety of diseased states which the contagium is able to produce.

Thus Grauvogl describes a sycotic pneumonia with slowly coagulating blood (sycotic blood contains very little fibrin), where

the inexpressible anguish stands in no proportion to the torpid course, and the hoarseness and dyspnoea transcends by far the physically proven extension of the inflammation; the prostration is equally peculiar, as well as the copious, easy, green expectoration, and the unbearable sensation of heaviness and tension in the chest. The slightest cause provokes an attack of asthma and prevents motion even after the inflammation has run its course. Emaciation and sunken features reach already a high degree during the first days. The sycotic urine is of a pinkish color. If wrongly treated, as, *e. g.*, by mercurials, it passes over into a chronic catarrh, and the pulmonary parts attacked into induration of the connective tissue. From such a chronic catarrh phthisis ulcerosa develops itself, easily misjudged as tuberculosa. The autopsy of maltreated sycotic forms show extended obliteration of the bronchi and bloodvessels by fibrinous coagula, as found in no other form, and reminds one of the thrombosis of Virchow. According to Grauvogl, many a change considered as lipoma, as colloid and jelly-like tumors, even some forms of cancer, may be ascribed to sycosis.

The diagnosis of sycosis is facilitated by considering the following peculiarities: All sycotic forms obstinately withstand the action of Mercury; it causes considerable aggravation and extension of the morbid process. The same may be said of every irritating treatment or severe diet; but the old physicians were well acquainted already with the beneficial action of iron (so injurious in syphilis), also of Graphite, Arsen., Baryta, Antimon., Aurum muriat., and observed in some forms of sycosis benefit from Sal. ammon., Nitrum, Natrum sulph. These form-differences are based on chemical differences.

Chemical characteristics, common to all the forms, are the gluey quality of the blood and its increased proportion of hydrogen. A profuse mucous production is also often characteristic. All exudations are gelatinous, quivering, and coagulate very late; the deliquescent formations greenish, light-yellow, brownish. No sycotic or leucæmic process gives pus or fibrin. Many diseased states, formerly ascribed to sycosis, must be added to other series (fibrinous); but even in sycosis Grauvogl adopts two chemically different forms, and arrives at the interesting conclusion, that from

the Hahnemannian series of psora many forms are found again in sycosis, according to the present standpoint of science, and, therefore many antipsoric remedies act equally as well as antisycotic ones. Thus, we may mention Carbo veg. and anim., Calcarea, Aurum, Arsen., Ferrum, and our Thuja, whereas Sulphur, Phosphor, Cuprum, and Mercur. remain pure antipsorics.

With a mere chemical definition the difference between psora and sycosis is very easy, for all fibrinogenous and pus-forming forms, as well as those produced from want of ozonization in the blood, belong exclusively to the category of psora diseases. But such a definition does not suffice, and we must go back and study Hahnemann. Both authorities, Hahnemann as well as Grauvogl, consider *sycosis as a gonorrhœal dyscrasia*. The latter says: "When a person is infected by an impure embrace, the syphilitic poison causes in one person chancre, in another gonorrhœa. The latter is only possible when the contagium develops itself on a hydrogenoid soil, and in another constitution the same poison will produce a chancre or nothing at all. It is a fact that the (not sycotic) chancre can be cured by minimal doses of Mercur., whereas the second form of syphilitic infection, the gonorrhœic one, obstinately refuses to yield to Mercur. The same thing is valid for the consecutive diseases of this poison, appearing in two forms or metamorphoses; and we see this exceedingly well where locally caustica or astringentia are applied. Whereas, after forced suppression of a chancre by cauterization, the chancrous dyscrasia becomes developed, the local treatment of a gonorrhœa by Nitrate of Silver, etc., is very apt to lay the foundation to the gonorrhœal dyscrasia. The chancrous dyscrasia, as well as the chancre itself, chooses the oxygenoid, or the carbonitrogenous constitution for its further development. This contrast appears the stronger when we use Thuja, or Natrum sulph., remedies for sycosis in chronic diseases, in a body affected with chancrous dyscrasia, for an aggravation is sure to follow."

With due deference to such high authority as Grauvogl, we still have some objections to make. Thus it may happen, that gonorrhœa and chancre may be observed in one and the same person, and it may be hardly considered possible that two constitutional anomalies are simultaneously present in the same person.

Grauvogl affirms the experience of Wolf, that the manifestations accompanying the chancrous dyscrasia and its morbid states consist in continued sleeplessness, dryness of the throat, cracking of the joints, horripilations during stool, and in a gradually increasing paralysis after the cessation of the preceding hyperæsthesia. But it must not be forgotten that in the hydrogenoid constitution (especially when combined with sycosis), also sleeplessness, chilliness, paralytic phenomena, and furious neuralgiæ play an important part, whereby it will be difficult to decide whether a hydrogenoid constitution (with or without sycosis), or a chancrous dyscrasia in an oxygenoid constitution is present, especially where the patient denies any personal infection; furthermore, there are many cases where a decided constitutional species could be shown, although this does not exclude the usefulness of characteristics for non-complicated cases.

Hahnemann, when speaking of Thuja, remarks that this drug is specific for uncomplicated condylomata, and experience teaches that it is the only remedy for sycotic gonorrhœa. We read in the *Chronic Diseases*, sycosis is too often wrongly treated with mercurials. The excrescences arising on the genital organs (for there they show themselves usually at first), accompanied by a gonorrhœal discharge (though not always), days or weeks after an embrace, are more rarely dry and warty, more often soft, spongy, oozing out a foul-smelling fluid, and easily bleeding, appear in the form of a cocks' comb, or of cauliflower, at the glans or under the præputium in the male, in the environs of or on the swollen vulva in the female, and have always been treated by caustics or the knife, with the natural consequence of reappearance on the same places, or inasmuch as the natural locality became suppressed, the disease reappears secondarily in other parts of the body, either as whitish, spongy, sensitive, flat plaques on the buccal cavity, on the tongue, fauces, lips, or as large, raised, dry, brown nodes in the axillary fossæ, on the neck, scalp, etc., or shortening of the sinews of the flexors, especially of the fingers, sets in.

Sycotic gonorrhœa (the poison of common gonorrhœa does not penetrate through the whole body, but irritates only locally the urinary organs), as well as the excrescences are most thoroughly

and certainly cured by the internal use of Thuja. Inasmuch as Hahnemann differentiates between purely sycotic and complicated sycotic gonorrhœa, this recommendation of Thuja remains a conditional one. Such complications are psora and syphilis. As characteristic symptoms of sycosis complicated with psora, he gives, stitching, painful ulcerations of the tonsils, round, coppery spots glistening through the epidermis; pustular, not itching, in the face, on a bluish-red base; pale, flat, smooth, unpainful ulcers on the scalp; boring, nightly pains of the exostosis.

In reviewing once more the different views of authors in relation to sycosis, we consider Virchow's standpoint far too limited, only a pathologico-anatomical one, especially as he never mentions that his leucæmia is based on preceding sexual diseases; but the standpoint taken by Grauvogl and Hahnemann promises a fruitful therapia, as both believe in a lues gonorrhœica, which may produce new diseased states. Grauvogl teaches us here his hydrogenoid constitution with its therapeutics, and Hahnemann leads our attention to the possibility that the manifestations of condylomata change by becoming complicated with other important noxæ (syphilis or psora), and that the specificity of corresponding remedies (especially of Thuja) remains correct, though apparently unable to cope with these dyscratic complications.

V.—THUJA IN ITS THERAPEUTIC RELATIONS TO VENEREAL DISEASES.

Jahr (*Veneræal Diseases*, p. 417) says: The chief sphere of action of this remedy are the modifications of the chancre virus that are described as *idiopathic condylomata*, *mucous tubercles*, and *sycotic excrescences*. It is more particularly the humid products of this kind, such as cauliflower excrescences, and, still more, mucous tubercles, against which this remedy will prove most efficient; whereas this agent, according to Rummel's very correct observations, is of little or no use against the dry, filiform figwarts, which sometimes continue even after the virus has been entirely destroyed. Nevertheless, it may be useful in certain old chancrous forms, and likewise in secondary ulcerations of the skin and throat, although the chancrous forms, for which Atomyr recom-

mends this agent, seem to be mucous tubercles rather than true chancres. Wolf, of Dresden, is quite right in recommending Thuja for dubious ulcers in the sexual organs, in the mouth and fauces, more particularly if it is not quite certain whether the ulcers are mercurial or syphilitic; in such cases I have likewise used it with much success, especially among females. In the cases successfully treated with this remedy by well-known physicians, the following symptoms were the chief indications:

1. *Chancres, Mucous Tubercles, and Figwarts.*—*a.* Chancres, becoming more elevated above the skin (after Nitri acidum). Ulcers, secreting a corrosive ichor mixed with blood. Small ulcers scattered over a hard base, lined with a whitish pus, burning and smarting, or biting a good deal. Several ulcers on the prepuce and glans, growing above the skin, clean-looking, but suppurating profusely. Vegetating ulcers on the glans, prepuce, and penis. Deep, humid furrows, covered with pus, seated on the prepuce, which is swollen all around, and surrounded with wrinkled, red borders. Ulcers on the prepuce, discharging a profuse quantity of ichor, and raised above the skin, like warts, cut half through (mucous tubercles?). *b.* Cauliflower excrescences. Comb-shaped, horny excrescences on the inner surface of the prepuce. Twelve condylomata on the margin of the glans. A number of warts and tubercles, part ulcerated and part dry, on the scrotum, perineum, and anus; the skin of these parts being excoriated here and there. Warts, partly hard and reddish, partly suppurating, densely covering the anus and scrotum all around. Smooth condylomata on the perineum, scrotum, and anus; they secrete a good deal of moisture, and are covered with a purulent and viscid fluid. A continued line of condylomata on both sides of the external labia, extending as far as the promontory of Venus. Numerous condylomata on the thighs, and swollen labia majora, with corrosive leucorrhœa. A mulberry-shaped, shining condyloma at the anus, with a broad base; on both sides of it deep rhagades, secreting a fetid ichor, and surrounded by a brownish-yellow areola. Mucous tubercles on the labia, at the anus, on the corners of the mouth, on the *alæ nasi*, eyelids, nipples, especially in the case of women and children.

2. *Syphilitic Erosions*.—Female gonorrhœa, with numerous erosions and profuse secretion. Humid erosions between the thighs, and on the sides of the scrotum. Excoriation and bright redness on the inner side of the thighs, with intolerable burning. Superficial syphilitic erosions in the fauces, with mucous tubercles. Suspicious redness of the palate, with occasional stinging in the throat.

Description of the Forms and Stages of Syphilitic Diseases, for which Thuja is especially adapted.—1. *Tubercula mucosa humida, plana seu lata*. French authors described them first as symptoms of primary syphilis, and differentiated them from pustular syphilides of the skin, from chancre and figwarts. They appear six, eight, fourteen days, even four weeks, after an impure embrace, and consist in a morbid development of the skin or mucous membrane of the affected part in the form of moist, broad, flat or roundish tubercles. They are more or less of a dark-red color, 3 to 6 lines in diameter, group together in twos and threes, and discharge a glutinous mucous matter, whose specific odor suffices to diagnose the disease. The surface of the cutaneous tubercles is surrounded by a coppery areola; on the mucous membrane they appear of a bright-red color. When the surface becomes eroded or ulcerates, it might be taken by a careless observer as an *ulcus elevatum*. These tubercles appear exceptionally several months after the disappearance of the primary symptoms of infection, or even without any preceding symptom of chancre or of any other syphilitic form.

In relation to the seat of this *migrating syphilis*, they are mostly seen on the inside of the labia majora, on the glans, in the neighborhood of the anus, on the mammæ of women nursing syphilitic babes, on the outside of the labia (by local infection), on the skin of the penis, on the scrotum, perineum, and on the inside of the thighs. Where the mucous tubercles appear on other parts than the sexual organs, they are apt to change their form.

They show themselves in the mouth (at the margins of the lips) in the form of jutting out, somewhat flattened elevations, nearly always oval; more or less numerous, but standing solitary; of a grayish or pinkish color; rarely moistening, sometimes with ulcerating fissures. At the corners of the mouth they are fre-

quently taken for common fissures. On the tongue (tip, edges, base) they look similar to those on the vulva, are oval or round, pretty large, of a grayish or dirty-red color.

In the throat they have their usual seat on the velum or tonsils, and give us the picture of a syphilitic angina. On the tonsils they may pass into deep syphilitic ulcers. Syphilitic hoarseness and aphonia is frequently caused by the presence of these tubercles, which may also produce difficulty in swallowing. (Strictures, frequently observed after preceding venereal diseases, may arise from such tubercles, whose presence was overlooked, and their consequent metamorphosis in scars.) Sometimes these proliferations on the throat have been observed in connection with indurated chancre.

On the nose they appear at the entrance of the nasal cavities, sometimes not larger than the head of a pin, of a granular surface, forming a fissure between the cheek and *alæ nasi*. They are usually found in connection with simultaneous syphilitic manifestations on the sexual organs.

On the toes they are like the fissures at the anus; their elevation is of a violet color, and between the toes they are roundish, more oblong on the nails, discharging copiously a very foul-smelling matter.

On the external skin they choose especially the nipples, the ears, cheeks, the chin, the inguinal region, the umbilical region; in syphilitic babes every part of the body.

As the mercurial ulcers are never elevated and always milk-white, they cannot be easily mistaken for moist tubercles. They also differ from the elevated chancre, inasmuch as the former constitutes a jutting-out grayish-white ulcer of spongy appearance, healing from the centre. The more serous discharge and the stationary quality are the only points reminding one somewhat of syphilitico-tuberculous proliferations. The fissured or ulcerating hæmorrhoids are always more or less of a violet color, never flattened, flabby, and elastic to the touch; it would be more difficult to differentiate between the simple chancre, especially when the latter appears in the form of erosions and moist tubercles, but the time of their appearance differs; the tubercle appears later and in contradistinction to the primary *ulcus syphiliticum*, never solitary.

2. *The Sycotic Excrescences or Condylomata*.—They appear, 1st, as implanted excrescences of greater density than the skin, where they are quasi implanted with a basis or pedicle; 2d, hypertrophic excrescences, formed by a simple tumefaction of the cellular tissue of a fold of the external skin, or of a mucous membrane; they easily become sore and ulcerate, discharging a foul-smelling mucous pus.

The implanted excrescences are either cauliflower, or warty, or with a long pedicle, or mulberry shaped; the cauliflower excrescences discharge copiously a yellowish bloody fluid, whereas the other forms are very dry. The hypertrophic excrescences are fig-shaped, or like the articular head of a bone, or like a cock's crest. The two forms are generally more or less oblong, flattened tubercles, or (seated upon an already round elevation), attached to a more or less elongated pedicle. Both forms are generally of a hard, almost cartilaginous, consistence, and not very painful, but what is of importance for Thuja, they excoriate easily, and discharge a foul-smelling mucous, more or less acrid matter, of a yellowish color. The question then arises whether these products are the fruits of the poison of chancre, or of that of gonorrhœa, or do they arise, as Hahnemann and others teach, from a third (venereal) poison. The acts are not yet closed, and we have to hold fast to facts: 1, that these excrescences are the sequel of venereal infection; 2, that they may appear primarily (protopathically) or secondarily; 3, that they are observed simultaneously with gonorrhœa and chancre, but also after the latter have run their course, and thus were considered secondary manifestations.

The cartilaginous hardness of the hypertrophic excrescences reminds one of the Hunterian chancre, its discharge of the mucous tubercle, so that the origin from chancre poison is more probable for the hypertrophic excrescences than for the implanted not hypertrophic ones. But we must remark that both kinds of excrescences (condylomata) are found as well after chancre as after gonorrhœa, and that infection with these may engender gonorrhœa and similar excrescences, but never chancre. We fully agree with Jahr, who considers a gonorrhœa, engendering such condylomata, a modification of the syphilitic gonorrhœa, emanating from a chancre.

Condylomata differ from mucous tubercles by their hardness,

from non-syphilitic neoplasmata by the anamnesis, from cancer præputii et glandis by their rarity (they are usually only seen in persons of advanced years), though it cannot be denied, that by the proliferation of these sycotic excrescences the whole glans may appear covered with grayish ulcers and thus simulate a cancer.

Thuja cannot be considered a universal remedy for these proliferating products of a venereal infection. It requires rather the presence of certain symptoms in order to find it indicated. Thus sycotic excrescences in connection with gonorrhœa, might require Thuja, or Merc. cor., Cinnabaris, and Nitri Acidum; even Sulphur or Lycopodium are sometimes in place. In moist condylomata, Jahr prefers Nitric Acid to Thuja, whereas in all dry excrescences, especially the cauliflower and mulberry form, he begins the treatment with Thuja or Staphisagria, and gives even the preference to Lycopodium in pediculated ones. Broad, as well as raised condylomata are suitable for Thuja (the fanlike excrescence needs Cinnabar), and according to its seat it does not matter whether the condylomata occupy the glans, the preputium, the scrotum or anus, nor does it make any difference for Thuja whether the excrescence arose from chancre or from gonorrhœa.

Jahr supposes that the whitish, spongy, sensitive, flat elevations in the buccal cavity, on the tongue, fauces, lips, etc., which Hahnemann considered as sequels of locally suppressed figwarts, are only mucous tubercles originating most frequently from chancres. Still, Thuja acts well even here. Rimmel considers filiform excrescences a contraindication for Thuja, whereas it acts well in thick, red, moist, mulberry-like condylomata.

We must also mention that there are primary ulcera sycotica, primary in the same sense as the common chancre. The diagnosis is sometimes difficult, as condylomata not always follow. Dr. Herman relates a case, where two young men, having connection with the same person on the same day, one was infected with a chancre, the other with a gonorrhœa. They were allopathically treated, but livid places remained. Shortly after numerous condylomata appeared at the anus, which took two months for their removal.

The same author may be perfectly right, when he supposes the difference between a primary sycotic and primary syphilitic ulcer

to coexist; that, 1, the former has especially its seat on the frænum; 2, that they exchange the circular form for one extending in breadth and surface; and 3, that they do this with a certain rapidity.

(To be continued)

ARTICLE XIX.—What Causes Sleep?

BY PROF. W. PREYER.

PROF. W. PREYER, of Jena, delivered the following address before the forty-ninth congress of German scientists and physicians:

After a short historical introductory, where he gave the views of other writers on this enigma of our life, he continues: In proposing any theory of sleep, I start with the fact, that weariness of the senses, especially of the organs of sight and hearing, of the muscles, and of the nerve-centres, always produce a natural sleep, and as the organs of sense may be considered as the peripheric end-organs of the sensory nerves, and the muscles as the peripheric end-organs of the motory nerves, it might be said that sleep appears when the end-organs of the nerves are tired out. The reason of this is, not a solitary mental process can take place without oxygen, which the arterial blood carries to the brain. As soon as the ganglia-cells are deficient of this blood-oxygen, the higher faculties of consciousness are extinguished, the faculty of thinking is interrupted. Where the cell of the ganglia has plenty of oxygen, these faculties go on in their normal state. This supposition is not yet proven, but very probable. Alexander von Humboldt, in his essay *On the Irritated Muscular and Nerve-fibre* (1797), uses the remarkable expression: although it does not look fair to affirm, that thinking consists in chemical processes, or that it is the consequence of mechanical concussions, still it may not be unphilosophical that, simultaneously with the thinking in the organ of the soul, chemical changes and fibrous movements appear, during which it requires more oxygen. In fact, numerous experiments

prove that, of all tissues of the organismus, the tissue of the brain, with the exception perhaps of that of the liver, is most able to extract the oxygen from the blood. After ligating the bloodvessel carrying the oxygen, the functions of consciousness cease; after numerous hæmorrhages, sleep sets in. The cause of this is want of oxygen, for experiments demonstrate that states similar to sleep can only be brought on by withdrawal of oxygen. Animals kept in a breathing-space artificially closed were allowed, by the sole process of their breathing, to dislodge the oxygen by azote, and in the same ratio gradually the manifestations of consciousness decreased, whereas they again reappeared as soon as oxygen was admitted. The question is pertinent, whether also natural sleep may be produced, that at certain times the gray substance of the brain has less oxygen at its command, and whether this arises that less blood and thus also less oxygen is carried to the brain, or that as much blood as in the waking state flows to the brain, but that the oxygen is used up in a different manner? It has been often affirmed that this alternative has not been solved yet. Marshall Hall and Haller believe that the veins are overfilled during sleep, whereas Blumenbach leans to the opinion that the quantity of blood in the brain is diminished during sleep. Durham, 1860, experimented on animals. He trepanned them, and observed the bloodvessels of the brain when the animals slept. He found at first a dilatation, and during the sleep a contraction of the bloodvessels, and came to the conclusion that during sleep a diminution of the quantity of blood takes place. But a closer observation evinces that these experiments failed to prove what they ought to have done, inasmuch as Durham narcotized the animals. It was not a natural sleep, but an intoxication. And we have Nasse's experiments, which do not agree with those of Durham. He trepanned the animals without narcosis, and did not find a contraction of the bloodvessels. Valentine proved the same in the winter-sleep of marmots. They did not wake up during the process of trepanation, and no contraction took place. Hence we may conclude that natural sleep is neither caused by an increased, nor by a diminished, supply of blood, and the only supposition remains, that the oxygen during sleep is used up in a different manner than in the waking state. We must therefore

suppose that oxygen is used up differently during sleep than in the waking state. During exercise of the brain, as well as of the muscles, a kind of peculiar material, so-called, "material from weariness," forms, which accumulates in quantities corresponding to the intensity of the activity, is very oxidable, and which lays hold of the oxygen during sleep, and thus becomes oxidized.

This is the basis of our theory. It is necessary to prove the existence of such material, that it may form rapidly, and that it may produce lassitude and sleep. Berzelius already found, 1807, in dead muscles, kreatinic acid, and exhibited it, 1841, from the flesh of hunted animals. Dubois-Reymond, 1850, affirmed that the muscle in its quietude has a neutral reaction, with an alkaline tendency, but the active muscle exhibits an acid reaction. Liebig found that the meat of active wild animals contains more kreatin than that of tame ones. Helmholtz arrived at the same conclusion. Ranke enlarged these observations, and affirmed that kreatin and lactic acid are developed during the activity of the muscle, whereas the same at rest contains none. Claude Bernard already said, in 1850, that the active muscles use up more oxygen, and Ludwig confirmed it by quantitative experiments.

If, therefore, we acknowledge such a material of exhaustion in muscles, we may accept something similar for the lassitude of the nervous system, only we must distinguish between peripheral and central organs. I am not yet convinced whether the living contents of nerves can show an acid reaction. But it has been demonstrated in certain end-organs, so by Dubois-Reymond, in the electrical organ of the shad (Wels), which gives a neutral reaction during rest, and an acid one during activity. An extension of such experiments is greatly to be desired, and especially in trepanned animals it ought to be established whether the reaction is less acid during sleep than during the waking state. It has been tried also in a different manner to found a psycho-chemistry, supposing that the secretion of phosphoric acid is increased, but the experiments failed in giving satisfactory results; and after all we gain nothing by such a change in the chemismus, inasmuch as the oxygen is used up by the brain, but the blood is venous just as well as during sleep. At any rate, it seems probable that also during mental activity certain products, material of lassitude,

may form, similar to that from muscular labor. If, then, an exertion has been kept up for some time, such products of activity accumulate in such a manner, that immediately after its cessation a sudden discharge of oxygen may take place, to be followed at once by sleep. Let me remind you of the observations made in England. Captain Webb fell into a deep sleep immediately after having swam through the Channel and reached land; and it is well known that the same happens to runners after reaching their destination. In all such cases, the products of weariness have been formed so abundantly, that they extract with great rapidity the oxygen from the brain.

We must furthermore show, that we have to deal not only with such a weariness, but it must reach that degree that sleep follows. Here also Johann Ranke has demonstrated that by injecting such material, which forms in tired bodies, we may produce weariness in muscles not tired out, and after removal of the substance thus introduced, the muscle is able to work again. In our theory this lassitude is also caused by the accumulation of this material in the muscle, and it is a question, whether we may produce something similar on the intact organism. If we consider how very rapidly diffusible poisons, introduced in the stomach, produce their action on the brain, we may also suppose that also such products of weariness, introduced into the stomach, may act very quickly on the brain. Numerous experiments prove the truth of this assertion. The manifestations are exactly the same as if the animals fell asleep of themselves. The reflex activity is perfectly preserved as in natural sleep, respiration is a little slower, temperature mostly somewhat diminished, the pulse slightly retarded. If we wake up the animals, they act exactly as if they were waked up from a natural sleep. Great care is necessary in these experiments; the light must be very mellow, not the least noise must be heard, and every stimulus must be kept off. But even where such extreme caution was not observed, it was proved that in many experiments with different animals the phenomena of sleep were clearly demonstrated. From animals, I extended these experiments to man and proved them on my own person. Although finding many individual shades, I always observed on myself great lassitude after the introduction of Sodium Lactate. In some

provers no symptom of weariness followed, but the same has been observed in provings made with Chloral. I invited physicians and scientists to aid me in my experiments and in the short time of a year many valuable contributions were received. Thus, especially the researches of Lothar Meyer, in Berlin, and Jerusalemsky, in Moscow, gave no results in some cases, but in the majority they could claim favorable results. The unfavorable issues do not abrogate my theory, inasmuch as they may be ascribed to an incorrect application of the preparations, to the individuality of the prover, or to an impure chemical. Such negative results ought to urge us on only to make still more provings, for there may be cases, where merely by a chemical alteration of the gray substance a nutritive disturbance may arise, preventing the normal production of the material of weariness, and when introducing the same material artificially, it may attract the oxygen necessary for the performance of normal mental processes, and thus give time for recuperation to the cell of the ganglion; in fact I do not doubt that thus many psychopathic states might be ameliorated. Progress is only possible by co-operation in pathology, chemistry and physiology. Just on the chemismus of the gray substance we still meet problems of the greatest interest. We do not know why we cannot, according to our fancy, keep awake or fall asleep for days or weeks. We do not know by what the voluntary differs from the involuntary, but we know that during sleep the will is wanting, and still the dreamer soars high into the airy mist. We cannot yet explain such manifestations of a conscious state, but still less can we deny them. It is too true that just here the fancies of spiritualism hold high court, but even this must not discourage us, for finally fancy must give way to the experiments, superstition to common sense and to exact science, for in all this doubting and learning one thing is sure,—“die menschliche Vernunft ist kein Traum,” though everything else may be a dream, man’s reasoning power is no dream.—*Wien Freie Presse*, September, 1876.

ARTICLE XX.—Salicylic Acid.

BY E. M. HALE, M.D.

It is high time that the homœopathic school had begun to investigate the pathogenetic action of this powerful remedy. I commenced the use of it about two years ago, first as a remedy in fermentative dyspepsia, when there occurred distension and formation of gases in the stomach and bowels after meals. Its action in such cases was followed by gratifying results.

My next experience with it was in cases of cholera infantum, or other diarrhœa of children, when the eructations had a peculiarly putrid and offensive odor. It acted better than Arsenicum, removing the fetor, and benefiting the intestinal disorder.

Experimentally I tried it in several cases of phosphatic urine, when the secretion was very offensive. In one case pus and mucus were largely present. It not only benefited the local urinary trouble, but removed the fetor, the pus, and the mucus from the urine. I have reported one case of catarrh of the bladder, when this agent, locally applied by enema, removed the disease in the short time of five days.

In the month of May, 1876, I had three cases of septicæmia, occurring in lying-in-women, due to absorption of morbid discharges through lesions of the vagina. In these cases the symptoms were very grave, the temperature was very high, with chills, abdominal tenderness, etc. Under the use of Salicylic acid, these cases recovered sooner than I had ever known such cases recover. In a paper read before the Wisconsin State Society, I narrated these cases. This paper was published in the *Medical Investigator*, August, 1876.

In the winter of 1876, the allopathic journals teemed with reports of the wonderfully successful use of this medicine in acute inflammatory rheumatism. My pupil, Dr. E. A. Gatchell, while in attendance on the clinic of the Cook County Hospital, at my request carefully watched the results of its use in this disease. He reported the results as generally very successful, fully agreeing with the favorable experience reported in the various journals. The doses used in the hospital were about ten grains every hour.

I determined to test its value in my own practice. Selecting two cases of polyarthritis rheumatica, as severe as any I had ever seen, when the temperature was 105°, the pain intense and the tenderness excessive. I prescribed the acid in doses of ten grains every three hours. The results surprised me. *After five or six doses had been taken, the pain, soreness, and inflammation declined, the temperature fell to 100°, and general improvement set in.* In four or five days the patients were cured. Only weakness, such as might be expected from the disease, remained. Never before had I seen such results from any of our best remedies. With Aconite, Bryonia, Cimicifuga, and Verat. viride, I had cured such attacks, but never in less than nine or fourteen days.

My stricter colleagues may inquire why I did not use the 3d trituration, or even the 30th dilution? I reply, that I adopted the rule Hahnemann laid down. He demanded of those who wished to test the value of the remedies he advised in disease, that they should use them as he did, namely, *in the same strength and at the same interval.*

If I had used fractions of a grain, or the 3d trituration, and failed to cure my patients, and then declared the medicine worthless in rheumatism, I should have been acting illogically and unjustly. As the sequel will show, I acted fairly and honestly, for not long after I had several similar cases, which I placed under the use of Salicylic acid in smaller doses. To one I gave five grains every four hours, to another five grains of the 1^x (trit.) every two hours, and another, ten grains of the 3^x, every three hours. These cases were not as severe and painful, nor did the temperature run as high as my first cases. The results were: In the first case (under five grains) he made rapid improvement, and was well on the seventh day. In the second case (under 1^x) the improvement was slow, and he was not free from the inflammation till the ninth day, and he was left with diffusion of one knee-joint, which had to be removed by the galvanic current. The third case (under 3^x) progressed unsatisfactorily. The medicine did not seem to "take hold," and I resorted to Bry. and Puls., and the symptoms did not disappear for fourteen days.

Since this experience I have treated several cases successfully with Salicylic acid, but I have found that the dose which cures

the most promptly, without causing any pathogenetic symptoms, ranges from five grains of the crude salt every two hours to five grains of the 1^x trit. every two hours.

Notwithstanding the fulminations of a portion of our school, I believe that certain medicines require to be given in definite material quantities to develop their curative action in certain diseases. I believe such is the case with Salicylic acid in acute rheumatism, Quinine in malarial intermittents, and Veratrum viride in acute inflammatory fever, and I shall adhere to this belief until cases of undoubted trustworthiness, proving to the contrary, are presented. I will here add, that in septicæmia (pyæmic fever), it requires about the same quantity to remove the disease, while in dyspepsia, diarrhœa, and the morbid states of the urine above referred to, I got good results from the 3^x trit. or dilution. (The dilutions run up in equal parts of Glycerin and Alcohol seem to act best.)

The allopathic experience with this agent up to this date is well summed up in the *Practitioner* of March, 1876, as follows:

“In polyarthritis rheumatica its beneficial use is universally attested. Indeed, one may say with certainty that, in many cases, after three or four doses, or even after five or ten grammes (75 or 150 grains), not only is the fever reduced, but the articular pains are also dispersed, so that in a few days acute cases may be looked upon as cured.”

Dr. Stricker is quoted in an article in the *Chicago Medical Journal and Examiner*, as follows: “All the patients thus treated were not only relieved of their fever, but also of the local symptoms, *i. e.*, the swelling, redness, and especially the painfulness of their joints, within forty-eight hours, most of them even within a much shorter period.”

Prof. Traube says that “fourteen cases of acute rheumatism were treated with the acid, and in all cases, within two days, all fever had gone, as well as the redness, swelling, and pain in the joints.”

It has also been used very successfully for offensive discharges from the ear, and offensive breath from any cause, even for offensive fetor of the expectoration in gangrene of the lungs.

Dr. Cehme, in the *North American Journal of Homœopathy*,

quotes from three German physicians the results in fifty-six cases of diphtheritis, accompanied with the following symptoms:

Violent fever; the entire fauces covered with a white exudate. In two cases hoarseness and barking cough (affection of the larynx) were present. In some a gargle was given, while in others it was not. The average dose was one-sixth of a grain, hourly, and the average duration of the disease was, in most of them, two to five days; except in a few of the most severe it was eight days. Among these cases there were none of diphtheritic inflammation of the kidneys, nor any cases of paralysis of the palate.

I have used it in but few cases of diphtheria. In adults, a few drops of the 1st diluted in Glycerin, repeated every two hours, with a gargle of two grains to a teacupfull of water, with ℥ii of Glycerin, or alcohol, has usually sufficed to remove the false membrane, and the fetor in two days. In children half the above strength is an ample dose. I think it far exceeds Carbolic acid as a topical application. In a few cases I alternated it with Phytolacca, but it might have been efficient alone.

Thus my own experience (although limited) shows that very large doses are not required. It is not necessary, therefore, to use massive doses, even in rheumatism (twenty grains every hour or two), to the risk of causing pathogenetic effects.

It may be well to record what such pathogenetic effects are. We find reported that it has caused "vertigo, hallucinations, tinnitus aurium, burning-pricking in the throat, copious, even colliquative sweating, partial collapse, great reduction of animal heat," etc.

The drug effects have in some cases reached to such a degree of severity, as to be worthy the name of poisoning, as witness the following:

"After one hundred single doses of Salicylate of Sodium, given at midday, in cases of typhoid fever of nearly equal severity, there was almost immediately a fall of temperature, the maximum result being reached in most cases in from four to five hours, and rarely in from eighteen to twenty-four hours. This fact was fully established by thermometric observations made every ten minutes

in the axilla and rectum. This reduction of temperature was noticed in eighty per cent." (Dr. Ewald.)

"Within fifteen minutes, or even less, after the administration, a copious perspiration breaks out, first on the face, then on the thorax, abdomen, and the rest of the body, accompanied by a redness of the skin, more especially that of the face, and may be so copious that the patients may lose 500 to 750 grammes of water" (a pint to a pint and a half).

The defervescence begins with the perspiration, though the two do not continue *pari passu*. Generally the pulse, respiration, and intestinal tract are unaffected. Contrary to the above, Dr. J. G. Richardson says, in the *Philadelphia Medical Times*, that, "in four cases, this agent, so lavishly lauded of late in rheumatism, was followed by some adverse symptoms. In the first case, 140 grains of Salicylic acid were administered in 120 hours, when it produced nausea, and was discontinued, without any effect upon the rheumatic complaint having resulted." In the second case, 110 grains, given in 72 hours, produced a temperature of $96\frac{1}{2}^{\circ}$ F., the pulse and heart-beat becoming intermittent. The pain and swelling were entirely abolished, and the patient received quinine, beef-tea, and punch freely, and was soon discharged.

"In the third case, a hyperdefervescence resulted from taking 45 grains in 3 days. In the fourth case, 55 grains were administered in 48 hours to a man 51 years old, an old rheumatic, on the tenth day of the attack. His pains were much relieved, but this favorable result was attended with profuse perspiration, rapid reduction of temperature, and marked diminution of the frequency and force of the pulse. He also complained of great prostration, and was slightly delirious upon waking from sleep. In all these cases the tendency toward alarming prostration seems to be decided."

"The acid excites some dryness in the mucous membrane of the mouth and pharynx, followed by increased secretion from their surfaces, slight deafness, and in some cases patients become unusually lively."

It is possible that some of the readers of this paper may be unacquainted with the pharmacology of Salicylic acid. As nearly as I can ascertain from chemists, and my own experiments, the fol-

lowing table will give the solubility of the acid (chemically pure) in the following vehicles, being those which we can use in homœopathic practice, as they are non-medicinal.

Alcohol, 25 per cent.,	$\frac{1}{4}$ per cent.
Glycerin and alcohol (equal parts),	30 “
Glycerin,	10 “
Glycerin, alcohol and water (equal parts),	$\frac{1}{8}$ “
Glycerin and water (equal parts),	$\frac{1}{20}$ “
Water,	$\frac{1}{1000}$ “

It will be seen that we can readily make the 1^x in pure alcohol, and carry up the dilutions for internal administration, in cases when homœopathically indicated. If we desire to give large quantities in acute rheumatism, we can prepare it of the strength of six or eight grains, in each drachm of glycerin, an excellent vehicle in which to administer it in that disease. In cases of *pyæmia* or *septic fever*, an excellent preparation is equal parts of Glycerin and brandy or whisky, which will dissolve eight grains to \mathfrak{z} i. From this strong solution the 2^{xx} or 3^x can be prepared in the same menstrua, and as it is necessary in nearly all cases of these pernicious fevers to give stimulants and food, the brandy or whisky and glycerin, a teaspoonful every two or three hours, (gtts. 30 of each) answers a double purpose. It will be seen by reference to the table that water will not dissolve more than $\frac{1}{1000}$ of the acid, making only the 1^o dilution. But this small power may be made excellent use of in practice, for it has been discovered that even the strength of one part in one thousand will prevent putrefaction in *water*, thus enabling us to purify water in which there are organic substances.

Milk will dissolve as much if not more than water. One part in five hundred of milk (1 gr. to \mathfrak{z} ii) will postpone “curdling” thirty-six hours later than in milk not medicated with it. It has seemed to me that we can utilize this fact. When we consider that children who are fed on artificial food, milk, etc., with or without the bottle, are very apt to suffer greatly from the “spoiling,” “souring,” or “curdling” of such food, bringing on attacks of vomiting, diarrhœa, gastro-enteric fever, and even cholera infantum, the question arises, can we not, by adding this minute quantity of Salicylic acid to their food, prevent all this?

I could answer favorably by citing a few cases where mothers, starting on a journey in hot weather, have asked me to advise them as to the best plan of feeding on the cars. If *condensed* milk agrees with the child, I advise that. If not, I have advised the addition of two or three grains to a pint or quart of milk, with the effect, as I learned, of preventing the spoiling of the milk, without causing any medicinal symptom in the children. Of course it would not answer to advise this as a continuous practice, but only for a day or two.

There are some specimens of the acid which are much more soluble than others, and some that appear very insoluble. The pure German crystals are to be preferred. While I value Salicylic acid highly as a topical application in the treatment of offensive catarrh, otorrhœa, fetid breath, fetid sweat, etc., I have not been pleased with it as an enema in puerperal states. It does not seem to destroy the fetor of the vaginal and uterine discharges as well as Carbolic acid.

An aqueous solution cannot always be made strong enough unless the acid is very pure. Some specimens require one thousand parts of water to dissolve *one* of it. In such cases the addition of a few grains of Borax increases very greatly its solubility, and also increases its antiseptic and curative power. I usually use it in the above local affections in the strength of five grains to a pint of water. If a sediment is precipitated, add ten or fifteen grains of Borax, and apply this through a douche, spray atomizer, or as an enema.

ARTICLE XXI.—Pathology and Therapy of Malum Pottii.

BY DR. AHRONHEIM.

DR. AHRONHEIM, in an essay on this disease (*Zeitschrift f. Prakt. Medicin*, 43, 1876) remarks, that the nature of this pathological process is still undecided. One party affirms that we have to treat a tuberculous infiltration of one or more vertebral bodies; whereas other authors consider it an endostitic process with consequent caries of the vertebræ, and deny its tubercular character.

Both parties may be right, as it cannot be denied that at least in some kyphotic patients tubercular processes lie at the base of the disease, whereas in most cases endostitic processes prevail. Post-mortem examinations fail to unravel it, for they are usually only made at a late stage of the disease; and Virchow, in his *Cellular Pathology*, truly remarks: "That there is a time in the development where with certainty the inflammatory can be distinguished from the tuberculous; finally, there is a time, where both products become intermixed, and where, if its origin is unknown, we remain unable to decide the question."

The diagnosis of malum Pottii, during its first development, offers some difficulties. We must remind our readers that the hump, *i. e.*, the clearly visible eminence of one or more spinal processes, does not represent the disease, but it is only an external symptom of an internal affection of the spinal column, either still in its florid state, or after having run its course; hence orthopedic treatment must fail in all cases where the destructive process is finished, and organic changes and deformities taken place. Pott's kyphosis is especially difficult to diagnose during its initial stage when appearing in children who cannot walk yet, where therefore the characteristics of a diagnosis are still wanting. Whereas this disease offers, as a characteristic, an acute-angular deformity, we observe in children who have not learned to walk, as soon as they are brought in a sitting position, more an arched, obtuse-angular curvature of some part of the spinal column backwards, but which mostly disappears as soon as we put the children flat on their belly, and this deformity reappears when the children are raised up. This form of curvature of the spinal column we frequently meet in old people; hence the term "malum senile."

What causes this deformity in children? There are cases where this backward curvature of the spinal column is produced by purely external causes, where all morbid manifestations can be totally excluded. In consequence of a muscular weakness of the extensors, the spinal column of the child is unable to carry its own weight; the weight of the head and of the shoulder-bone presses with such strength on the lower part, especially on the lumbar portion of the spinal cord, that it deviates in a curve backwards when sitting upright, whereby the intervertebral disks

become compressed, especially in their anterior periphery ; if such a child is obliged to sit much and for a long time, as it happens too often with poor people who cannot attend to their children, the anterior parts of the vertebral bodies which, at that tender age, possess only a very slight power of resistance, participate in that compression and flatten gradually. This may be the reason why in such cases this backward curving of the spinal column does not entirely disappear when the children lie flat on their stomach, because the continued compression causes not only a flattening (atrophy from pressure), but also simultaneously a kind of inflammation from pressure on those parts, in consequence of which small adhesions form, preventing a perfect equalization of the deformity. Here this terrible organic disease of the spinal column is absent, and in most cases we can exclude with certainty such a deeply penetrating affection, undermining the whole organism, as we witness in *Malum Pottii*. The children, as a rule, enjoy the best of health, appear well nourished ; they only exhibit a certain laxity in their muscles. It seems peculiar that in many cases the parents of the child hardly notice the deviation, and that medical advice is urged upon them by outsiders.

Quite another picture opens to us when examining children whose spinal column betrays the beginning of this pitiful affection. As a rule, such children are emaciated, cachectic, and of a bad color ; the parents complain that the child, formerly so quiet, has lately been very restless, crying a great deal, so that it could not be pacified. Even at the slightest touch it begins to cry again, especially when taken hold of below the ribs, as if it suffered from abdominal spasms, especially as it also draws its legs spasmodically up. It also evinces more or less dyspnoea ; the child hardly ever keeps its head in the erect position, but allows it to fall backwards between the shoulders ; gradually the spinal column curves backwards, and it is this last symptom which forces them to seek medical advice. We would lead your attention especially to two symptoms, the screaming of the child when laid hold of below the ribs, with the spasmodic drawing up of the legs, and the shortness of breath,—two symptoms which we never missed in the initial stage of kyphosis. Analogous to the first symptom we find in older children the periodically returning

epigastric pains; the dyspnoea is more or less clearly marked; frequently the parents notice it, and lead the attention of the physician to it; in other cases, again, the friends failed to notice it, perhaps on account of its periodicity. The cause of this dyspnoea cannot be sought for in a compression of the thorax, and hence of the lungs, which might be the case when the disease is further advanced; we rather believe that pressure in some branches of the *nervi vagi* induces it, especially from the peculiar position of the head backwards between the shoulders.

Where these two symptoms are present in a child with scrofulous diathesis, the diagnosis of a beginning kyphosis is justified, especially in small children who have not yet learned to walk. Our diagnosis is much easier in larger children, although there will be cases of doubtful judgment, as long as no deformity shows itself in the spinal column. The parents cannot understand why their child, formerly so full of life, is now still and listless; it does not jump about as formerly; it avoids walking and standing, is discontented and irritable, even quarrelsome with other children; it has lost its good looks, and is really emaciated; all its motions are without grace; and it prefers to lie flat on the stomach or on the side, only rarely on the back. The family is very apt to ascribe its behavior to a rheumatic cold, and ointments and sweating are the order of the day. Periodically the child complains of pains in its bowels, even of spasms; these periodically returning epigastric pains are the analogues to those which cause in little children with kyphotic disposition that restlessness and screaming when raised up. Although not all kyphotic children complain of these epigastric pains, still they are often enough observed to be considered characteristic for the diagnosis.

Only in rare cases the opportunity is offered to us to observe the disease at such an early state, and the physician is only consulted when a deformity has been produced, showing itself nearly constantly by a more or less acute angle, in contradistinction to that obtuse-angular curve of the spinal column in small children. According to the progress of the disease, one or more spinal processes project backwards in an acute angle, the head sinks backwards between the shoulders, conferring on the patient a peculiarly

characteristic appearance; there is a constant inclination to support the spinal column in order to ease it of its weight. Where the child finds no object for support, it props the arms on its thighs or knees, and to lift an object from the floor, it bends the knees so far that the hands reach the floor, as it avoids instinctively to bend the spinal column. By putting such a child on the floor, and requesting it to rise, it achieves it only with great exertion. In order to keep the spinal column quiet, it works with hands and feet, and raises itself up in a rather stiff position.

It is perfectly certain that, in consequence of a disposition, the children are victims of this disease, and still we see apparently healthy children attacked by it, and are unable to make out the cause. If we ask the folks around, we mostly receive the typical answer, that the child had a fall; but tumbling about, and even falling over, is of daily occurrence among children, and still kyphosis is a rare disease. It may be possible that, in some case from a trauma, the slumbering germ may be roused, and now breaks forth, just as we see similar manifestations in other morbid processes, but to affirm, as Taylor (*Orthopedic Treatment of Pott's Kyphosis*) does, that the majority of these cases originate in trauma, is certainly contrary to the observations of many authors. My experience taught me that, in many cases, the Malum Pottii must be considered as a tubercular disease of the vertebræ, and the whole habitus of the patient, and the course of the disease, correspond with it.

But we acknowledge readily that endostitic processes offer the larger percentage of kyphosis, only I cannot agree with Taylor that such processes are solely, or, at any rate, in most cases, produced by external causes. Just as in other parts of the osseous system carious processes may take place without visible causes, so also in the vertebræ, when a disposition to it prevails. From another side it is asserted that the disease appears first in the intervertebral disks, and not in the bodies of the vertebræ, so that the latter are only secondarily affected, and it is thought that this hypothesis will confirm the view of a traumatic influence, inasmuch as from a fall or concussion on the spinal column the ligamenta intervertebralia receive the first impetus. But, when we consider that the cartilage possesses far less bloodvessels,

and thus less inclination to inflammatory processes than the bones, especially than the porous vertebræ, the conclusion seems to be justified that the vertebræ are primarily affected, and gradually draw the ligamenta intervertebralia into coaffection.

We hinted already several times that, in the production of Pott's disease, a certain disposition plays an essential part, and here the scrofulous diathesis takes the front rank. In many cases of kyphotic children I have demonstrated the most exquisite symptoms of scrofulosis; experience also teaches that scrofulous children are very prone to osseous diseases, and Bauer (*Text-book of Orthopedic Surgery*, by Dr. Louis Bauer) is certainly wrong when he asserts that no articular disease whatever was ever cured, or even only alleviated, by anti-scrofulous treatment, and when the same author clings to the opinion that later constitutional reaction is the consequence, and not the cause, experience decides against him. We do not deny that a number of children enjoy for a long time relatively good health, and then are suddenly attacked by this disease, and that these patients, during the progress of this disease, gradually show the symptoms of scrofulosis, nor do we gainsay that, in consequence of Pott's disease, which so deeply affects the infantile organism, constitutional nutritive disturbances arise, which are acknowledged as scrofulous manifestations, for we see the same, *e. g.*, after measles, but in most cases we are sure that scrofulosis is not the consequence, but the cause, of the kyphosis, inasmuch as the former renders the infantile organism susceptible to the latter.

It is also worth while to mention, that children, after having passed through a severe attack of an acute disease, frequently show a short while afterwards the first symptoms of a beginning kyphosis. Especially during an epidemic of hooping-cough, children of a very tender age exhibit a tendency to distortions of the spinal column. The anxious parents consult the physician, not so much on account of the hooping-cough, but rather from fear of seeing their child humpbacked. Although the hooping-cough was nearly gone, still the parents observed a kind of short-breathing in the child, and a peculiar position of the head backwards when sitting, and a perfect indisposition to stand or to walk, when an exact examination of the body reveals a decided curvature

of the spinal column posteriorly. This deviation of the spinal column after hooping-cough is, happily, not so often the consequence of destructive processes of single vertebral bodies and ligaments, so that this state will be easily remedied, still there are cases of genuine Pott's kyphosis which originated in hooping-cough, and just such cases must be considered eminently dangerous and of bad prognosis; the children become very soon cachectic, and die off swiftly. We can only guess what the deleterious influence may be which the hooping-cough exercises in developing this destructive vertebral process, but we may suppose that a tuberculous affection lies at the root of it, especially as tuberculosis has been observed as a sequela of hooping-cough. Strohmeyer (*Surgery*, II, 2d part) designates hooping-cough as a cause of sclerosis, leading frequently to deviations of the spinal column, inasmuch as the former changes the tonus of the chest, *i. e.*, of the muscles of inspiration, thus gradually altering the form of the thorax, and producing a lateral curvature of the spine.

The course of Malum Pottii differs, and we must keep three points in mind: 1. The time when the evil is discovered is of great influence on the whole course of the disease, and there is hardly another affection where an early diagnosis is of so great prognostical importance as in Pott's disease; and where the case comes late under treatment, there remains very little hope for a successful issue. 2. The treatment is of equal importance, and to consider it from the start a *noli me tangere* is certainly culpable; a rational treatment will, if not cure, at least modify the disease, and keep it in certain limits. It takes time and patience from physician and patient to accomplish the desired end. 3. We must study the cause. The disease offers a different feature when tuberculosis caused it, and another one where endostitis prevails. Thus all paralytic symptoms of the extremities in Malum Pottii never reach such a high degree, and are far more curable, when endostitis is the cause of the affection; the so-called congestive abscesses are also never observed in tubercular, but very often in endostitic processes of the spinal column. They are usually seated in the inguinal region, and exceptionally only on other parts of the body, as *e. g.*, on the back at the affected spot of the spine. In relation to their prognosis views differ. Many authors con-

sider them a dangerous complication, but where they incline to break at a normal spot, I have seen many disagreeable symptoms disappear, only they must be left to nature, and an operation is only permissible in exceptional cases, *e. g.*, in retropharyngeal abscesses, where there is periculum in mora. Carefully treated, they close again partially or totally after some time, and I can assure my readers that I witnessed better results in cases where such congestive abscesses opened and discharged themselves, than in other apparently less severe cases without such complications. Certainly they must be always considered as a grave symptom, as it bears testimony of great intensity and extensity of a morbid process in the spinal column.

To be successful in the treatment of any disease, and especially of kyphosis, it will be necessary that our diagnosis be made early, and as this, in spite of the most careful exploration, is sometimes nearly impossible, particularly in small children who cannot run yet, we must be guarded in our prognosis, and wherever we find a posterior deviation, it teaches us at least a diminution of the tonus of the spinal muscles, an affection which may still yield to a tonic treatment. Great care is necessary in attending to such children, who should mostly keep the horizontal position, and should never be allowed to keep a sitting position for some time. If carried about, the same horizontal position must be kept up, as thus the spinal column is released of its own weight. It will be also advisable to wash daily the back of the child with some alcoholic fluid. From time to time we must renew our local inspection, so that we can trace the kyphosis from the very start. As soon as our diagnosis is established, it is the duty of the physician to explain the danger to the parents, and the length of time necessary for a successful issue. Where they are early informed of the destructive process, they are more apt to remain steadfast to their physician, without taking refuge in quacks and bone-setters, who perhaps promise a speedy cure. As most of our little patients are more or less suffering and debilitated, and as they manifest scrofulosis early, it will be our duty to improve nutrition by a suitable diet, and to adapt our treatment to the amelioration of their constitution, which, at any rate, essentially supports the mechanical treatment. Moderate quantities of cod-

liver oil are in many cases well borne, but gastric manifestations are a contraindication. Easily digestible iron preparations are equally indicated. Whenever the state of the patient allows it, strengthening baths are indicated, especially malt-baths. We find them most beneficial in congestive abscesses, where they aid in a thorough purification of the body, which is greatly needed in profuse suppuration. Carefully applied, they can never hurt. Nothing must be neglected to improve such a morbid constitution, though we may not be able thus to remove the kyphosis.

The position of the patient is a most important question, whether absolute rest in the horizontal position is necessary or whether motion can be allowed. There are cases where absolute rest is a *sine qua non*, as with patients, whose strength is so far gone that they lie continually, and who become very restless at the least attempt to change their position. Every therapeutic measure fails in such a case, and it is well that death soon liberates the poor little sufferer from his misery, and the exquisite symptoms of phthisis tuberculosa during life clearly demonstrate that the kyphosis originated from the same cachexia. But in most cases of Pott's disease the patients are not only able to move about but enjoy their rambles, so that it would be torture to chain them to their beds. It cannot be denied that absolute rest in a horizontal position for months and even for years, may immobilize a morbidly affected joint, and many orthopedists differ in their opinion, whether a position on the back or on the abdomen is preferable to immobilize the spinal column. Still we must not undervalue the evil influence of a long-continued position, be it on the back or abdomen, on the state of health, and we might ask the simple question, what length of time will be required to reconstruct by a horizontal position the diseased spinal column? No definite answer can be given, for we do not know when the process has run its course in the diseased spine, and we might endanger a relapse by allowing the child to get up too early. Two long years to remain in the same position and nevertheless no certainty of a perfect cure! In a hundred cases we will hardly succeed once to enforce for so long a time this absolute rest, and we may be glad that mechanical treatment of kyphosis offers us an excellent substitute.

Whenever the strength of the patient allows it, a suitable apparatus ought to be immediately applied. Thus the affected spine is put to rest, relieved from its own weight, and on the other side the patient is enabled to move about with care without fear of aggravating his case. A steady horizontal position depresses the heart of the child, who sees other children romp in the fresh air, and they are thus continually reminded of their misfortune, and such a mental state throws its dark shadow on the physical state, the children lose their appetite, emaciate, and often become a prey to marasmus. No, our little patients are far better off in the fresh air, carefully harnessed in their apparatus. Instinctively they keep from all wild movements, and after a little while they may be trusted to move about alone. But even when sitting down, the apparatus must be kept on, and they must take the horizontal position as soon as they put it off.

After considering the value of the different spinal supporters the Doctor warns against the too early removal of the apparatus. Years may pass before the morbid process in the vertebral column is entirely extinguished, and the latter by adhesions consolidated to such a degree that every support could be left off. A too early removal might renew the whole process. As soon as all movements can be carried out in a free and easy manner, mechanical adjuvantia can be dispensed with, but even then jumping, running, and all concussions of the body must be strictly forbidden.

Local treatment of Pott's kyphosis hardly ever leads to favorable results, neither the Ferrum candens, nor the fontanelle have ever been of any use. To put the patient's back in an ice-chest is obsolete and cruel. Nor has gymnastic-orthopedic treatment been of much use, and though it is only rarely the case that we can cure our patient, let us be at any rate very careful that we do him no injury. *Ultra posse nemo obligatur.*

Prof. Sayre of New York, exhibited at the late Medical Congress, held at Philadelphia, his mode of treating Pott's disease with the starched bandage. The patient was a boy, about five years old, with an extensive curvature of the dorsal portion of the spine. He was suspended by the neck and armpits, and a mould

of the curvature taken by means of a flexible rod, for the purpose of marking the future course of the deformity. Whilst the body was thus suspended, straightening the spinal column by its weight, the chest and abdomen were enveloped in fold after fold of starched bandage, until a compact casing of the material surrounded the trunk, capable of retaining the bony column in a fixed position. By this dressing, the ribs form so many *points d'appui* for extension and counter-extension. As soon as the starch is well dry and stiffened, the patient is liberated and left to his freedom. As an index of the completeness of the mechanical support given to the trunk by this coat of starchy armor, the speaker called attention to the movements of the perineum in respiration, each respiratory act being plainly marked by corresponding movements of the perineal region, without the slightest perceptible motion elsewhere. The child did not indicate the least difficulty of breathing or distress of any kind from the imprisonment of the muscles of the chest and abdomen. Prof. Sayre remarked that he had more than once witnessed a change in the complexion of the patient under this treatment within twenty-four hours after its initiation. The expression of distress in the countenance which marks the disease when of some duration, vanishes quietly, the appetite and spirits are restored, and rapid improvement and convalescence ensue. (*Pacific Med. & Surg. Journal*, Nov. 1876.)

Kafka (*Hom. Therapie*, ii, 167) remarks, that chronic myelitis in the course of spondylarthrocace is a favorite study with him for years, and the results of homœopathic treatment are favorable.

The inflammation of the vertebræ, in consequence of which the meninges of the cord, and the cord itself, participate in the inflammation, always causes a swelling and softening of one or two of several vertebræ. Without much sensation of pain and of sickness, apparently healthy children, or scrofulous, rachitic, or tuberculous children, get a distortion of the spinal column from softening of one or more vertebral bodies, and the symptoms differ according to locality.

Whenever it happens that the spondylitis comes under treatment at an early stage, the whole process can be stopped, and myelitis and meningitis spinalis prevented. Even where exuda-

tion has taken place, *but no abscess has yet formed*, though the children already prefer the horizontal position, though they are dyspeptic, bloated, and morose, though they are dyspnoëic, cyanotic, and suffering from extensive bronchial catarrh, we may expect great improvement from *Phosphorus*³, 2 to 3 doses daily. After a few days the children are already in better spirits, the weakness of the lower extremities decreases; in less than a week they cease to remain in a horizontal position; they sit up, and try to crawl about; appetite returns; potbelliedness disappears; cough decreases; dyspnoëa and cyanosis disappear, and sometimes in two weeks the children are able to walk nearly straight, and every morbid symptom is gone. Only the spinal column remains distorted; but still it is less sensitive to pressure, the swelling of the vertebræ and their annexæ is diminished, the symptoms of compression of the cord are gone. Where amelioration is rather slow under the use of *Phosphorus*, we stop this remedy after two weeks; give nothing for a week, or interpose *Natrum muriat.*⁶, two doses daily, and return again to *Phosphorus*, till all morbid symptoms have disappeared. Both remedies correspond as well to the scrofulous, rachitic, and tubercular constitutional anomaly, but they must be used for a long time in weekly alternation.

As soon as abscesses form, we immediately change to *Silicea*⁶, two doses daily; and where the patients are pale, weak, and emaciated, give a nourishing animal diet. At the proper season, it might be well to send such patients to the country. In favorable cases the abscesses become smaller and softer, or, may be, entirely absorbed, and a perfect improvement of the palsies, anæsthesiæ, and spasmodic affections may be the consequence. The remedy must be continued for weeks and months, but we may interpolate every two weeks *Sulphur*⁶, a dose daily, or make an entire interval, and then continue *Silicea* again.

In less successful cases absorption may also take place, but the amelioration is not perfect; a paretic weakness remains, sensation returned only partially, and spasmodic contractions of the muscles remain, proving that the pressure on the cord did not cease entirely, and that structural changes took place. *Electricity by induction* may be tried, to spur on the morbid process to further amelioration.

Where the abscesses are large and tense, with no tendency to perforation outwards, and where the patients are at the same time anæmic, weak, cachectic, emaciated, incision is demanded; but we must be careful that the abscess discharges itself only slowly and gradually, and that no air enters, as such entering air might cause coagulation in the internal wall of the abscess, and thus change it to a mucous membrane, preventing the healing of the abscess.

As long as the pus is yellow and without odor, we adhere strictly to Silicea, which acts well on the carious erosion of the vertebra; but where the pus is ichorous and of bad odor, we interpolate Sulphur⁶, two doses daily, and then return to Silicea. The more profuse the suppuration is, the more necessary will it be to support the waning strength of our patient by good nourishment.

With a hereditary tubercular disposition, and where the exudation becomes tubercular, a fatal issue may be feared. The inflammations renew themselves easily, with morning and evening febrile exacerbations, profuse sweatings, emaciation, and exhausting diarrhoeas. The abscesses discharge an ichorous, foul-smelling fluid, decubitus appears, and the patients die in consequence of tubercular caries of the vertebræ.

The late Ruddock (*Textbook*, 727) recommends Calc. phosph., Calc. carb., Ac. phos., Silicea, Hepar. sulph., Sulph., Assafœt., Mezer., and antiscrofulous treatment.

In order to relieve the pressure on the diseased bones and cartilages, rest in the recumbent posture for a long period is absolutely required. Generous nutritious diet must be given, and deleterious elements avoided. Bathing and friction should be daily practiced. When sufficiently recovered, out of door exercise in fine weather, with suitable supporting apparatus, should be secured.

Helmuth (*Surgery*, 806) describes different apparatus, all of which may nowadays be discarded for Sayre's simple starch bandage, which alone enforces the rest required for the spinal column. Among the remedies indicated he mentions Ars., Assafœt., Aur., Calc. carb., Hep., Lycopod., Merc., Mez., Phosph. ac., Silic., Sulph.

Gilchrist (*Surgical Diseases*, 138) recommends for *caries of the spine*, Angustura, Bell., Calc., Calc. iod., Lyc., Merc., Puls., Rhus, Sil., Sulph., Ars., Hep.; for *lateral curvature*, Calc., Puls., Sil., Sulph., Lyc., Plumb., Rhus; for *myelitis from a dislocation*, Acon., Arn., Hyosc., Merc., Rhus.

It seems to us to be of importance in the treatment of kyphosis Pottii, whether the disease arose from tuberculosis or whether we have to deal with an endostitis. In the former we hardly ever meet with congestive abscesses; the course of the disease is slow and gradual, the whole constitution of the patient is drawn, as it were, into coaffection, and the patients prefer rest in the horizontal position. We saw that most cases of *malum Pottii* are an endostitis, and we found most important for the diagnosis of the spondylitis and consequent *caries*: 1, the age: youth, and juvenile persons; 2, the symptoms, hinting especially to an affection of the joints, are clearly expressed, *i. e.*, the great stiffness during turning motions, and at a later stage the luxation and subluxation; 3, the appearance of congestive abscesses; 4, the simultaneous presence of tuberculosis, especially of the lungs.

Keeping in mind that psora is the cause of this infantile disease, we may be certain that our treatment, to be successful, must begin with an antipsoric course, and we agree with Jahr, that Sulphur is suitable before Calcareo in the beginning of the disease. Teste (*M. M.*, 167) agrees with him, for he says, in *caries* Sulphur seldom effects a cure. Generally it improves the constitutional condition of the patient, but this improvement does not last unless a more suitable remedy is resorted to in season. Nor does he consider Sulphur the specific remedy for scrofula. What is supposed to be scrofula are simply bad humors; and such a cachymia is characterized by the following symptoms: Sickly looks, pale, blanched, wan, earthy face, flaccid or wrinkled, or else fine and rose-colored skin, herpetic eruptions; dull, but continual headache; slow fever with evening exacerbations, physical and mental indolence, sweat in making the least effort; dyspnoea in working, walking, and especially in going up stairs. Hahnemann (*Chronic Diseases*, v, 289) gives it for pain in the small of the back; she was not able to stand erect; violent pain in the small

of the back only when stooping; the pains moved across the abdomen into the pit of the stomach and knee; pressing in the small of the back when standing or stooping; painful stiffness in the small of the back after sitting, when stooping or walking; sudden tearing or jerking here and there in the body, etc.

Kafka relies on *Phosphorus*, steadily given for a long time, even when exudation took place, *but no abscess has yet formed*, in interstitial disease of the vertebræ and of the cancellous structure of bones in general. We know that Phosphorus is homœopathic to paralysis when dependent on lowered vitality or even softening of the centres. The maxillary caries of the workers in Phosphorus is well known, but Wegner fairly argues that there must be some personal causal condition in each individual case, in addition to the general influence to which all workers are exposed alike, and Hughes agrees with him that the influence is not local but constitutional (Hughes, *Pharmacodynamics*, 613). It has been found equally efficacious in osteomalacia and rachitis. The reason of it we find in the experiments of Wegner (*Ziemssen, Encyclopedia*, xv, 335), who demonstrated the specific formative stimulation of Phosphorus to the osteogenous tissue, where it may even dislodge all spongy tissue, putting in its place compact osseous substance. Among its symptoms we read, pain in the small of the back when raising the body after stooping, and when standing, after long sitting; periodically returning intolerable pains in the back, hindering walking; unceasing stitching in the spinal column; pressure close below the scapulæ; jerking, beating, and tearing in the scapulæ; sensation as of a heavy load in the nape of the neck; pressure and stiffness in the nape of the neck; jerkings in the cervical muscles; heaviness in the shoulder and arms; drawing stretching in the muscles of the arm, from the shoulders down to the lower arm; paralytic pain in the arm, with tremor of the hand when holding something; painful paralytic feeling in the hip so that he cannot stand on his feet; no pain when sitting or lying down; great weakness in the lower limbs, she falls easily; weariness in the limbs; early, tearing jerks in the posterior side of the thigh, extending to the knees during and after a walk in the open air; drawing pains from the knees to the feet, etc.

Natrum muriaticum is recommended by Kafka in a sort of alternation with Phosphorus. It is, as it were, the constitutional

adjuvans to the latter, which is the remedy against the diseased state proper. We know that the salt suits the lymphatic temperament, and that its homœopathic use will prevent the disintegration of the tissues. Defective nutrition points frequently to the Chloride of Soda as the remedy, especially where it shows itself in emaciation with dry and ill-colored skin. Among its symptoms (*Chronic Diseases*, iv, 324) we read, pain in the left side of the back, as when one presses upon an inflamed part; continual aching below the right scapula; pressure over the loins, with sensation as if the legs were stiff and bandaged around; tearing and pain as of fracture in the scapulæ, with stiffness of the back and nape of the neck; violent pain in the nape of the neck, so that she is not able to turn, etc., etc.

Dunham (*N. A. J. of H.*, xx, 359) considers *Silicea* a most valuable and efficient remedy in caries and in periostitis. It is related in these respects to *Assafœtida*, *Graphites*, *Conium*, and to *Platinic Chloride*. Its value in affections of the bones would naturally suggest its use in rachitis in children, in which the symptoms of "sweating of the head only" and tenderness of the surface of the body, indicate its homœopathicity. Experience has likewise confirmed Hahnemann's declaration that *Silicea* has a wonderful control over the suppurative process, whether in the soft tissues, the periosteum, or the bone itself. Upon the nervous system *Silicea* exerts a peculiar action. With evidence of exhaustion, furnished by sensation of weakness, paralysis, etc., there is an exalted condition of susceptibility to nervous stimuli. Clinical experience has taught us that general spasms occur on slight provocation in cases of this *Silicea* erethism. Characteristic of Pott's evil are the symptoms: stitches under the left ribs, pains in the loins, spasmodic pulling in the sacrum, which obliges one to lie down and does not allow one to rise again, stitches and tearing in the back, lameness of the trunk, contusive pain between the shoulder-blades, weakness in the sacrum, back, and nape of the neck, painful numbness of the arms, pulling and stiffness of the legs, numbness of the feet, etc.

The *Silicea* erethism suggests to our mind the hyperæsthesia of *Assafœtida*, but whereas the former is only indicated in caries suppurativa, the latter finds its indication at an earlier stage. Espanet (*Homœolexique*, i, 145) believes that the cachexia corre-

sponding to Assafœtida, takes its origin in the ganglionic nervous system, nutrition is feeble and there is a predominance of the white juices. The pains of this drug are therefore aggravated by rest, but not modified by motion, which would be the case from activity of cerebro-spinal innervation. The pains of Assafœtida go from below upward, from within outward; they are paroxysmal. Assafœtida is preferable to Gold in superficial periostitis and caries of the bones of the nose, in the swelling of cartilages and thickening of the periosteum from the abuse of Mercury. Hence we must agree with Hughes that Assafœtida is not indicated in deep-seated organic lesions of the osseous system.

None of the authorities we have quoted mentions *Psorinum*, and still we find among its symptoms (*N. A. J. of H.*, xxiv, 179), pains in the back, as if the third vertebra from below were wanting or broken (very severe for eight days); excessive backaches, a kind of stitching, pressing; the back feels bruised, he cannot straighten out; a dull pressure between the second and third dorsal vertebræ; boring pains in the dorsal vertebræ; stitches in the lumbar region, extending to the knee; very little labor exhausts its strength; weakness in all joints, as if they would not hold together; feels best when lying down; does not like to work.

Sulphur or *Psorinum* might well be thought of at the beginning of this endostitis, and we may hope thus to arrest the process, but even where we are called in at a later period, Kafka shows us that we need not despair.

The same may be said where tuberculosis is at the root of the evil. We cannot be so hopeful as in the former case, but still our antiscrofulous, antituberculous armamentarium is so rich, that even here we must not strike our flag, but fight for victory, and victory may sometimes crown our well-directed efforts.

ARTICLE XXII.—Some Experiments on the Frog with *Iberis amara*.

BY E. A. GATCHELL.

As the physiological and pathogenetic action of *Iberis amara* is far from being settled, at the suggestion of Dr. E. M. Hale, I made the following experiments on the frog, to determine the action of the drug on the heart of that animal.

I made an infusion, by thoroughly macerating eighteen grains of the seeds, and pouring on an ounce of boiling water, and filtering, after having stood for an hour.

Having secured the frog to a lath on its back, I opened the thoracic cavity with scissors in the median line, the heart was freed from the pericardium, and, after waiting a sufficient time for the abnormal beating, caused by the above treatment, to subside a little, the beats were counted, and found to be ninety per minute; ten drops of the infusion were injected under the skin of the thigh, and in four minutes the pulsations were but sixty-five per minute; at the end of eight minutes, sixty, and a little irregular; and, in fifteen minutes, they had increased to seventy-one beats, the drug evidently losing its effect. The contractions were very firm, forcing nearly all of the blood out of the organ. In twenty minutes from the first injection, twenty drops were injected into the other thigh, and the contractions became still firmer, the ventricle looking almost white during the systole, showing that it was almost emptied of blood; the heart seemed smaller, only two-thirds its original size; in twelve minutes, sixty beats per minute; and in eighteen, but fifty-six.

On removing the heart from the body, and making a longitudinal section of it, there was no blood in it, except a little between the columnæ carneæ.

Another was secured in the same way, and opened, and the beats were found to be ninety-five per minute; in four minutes after injecting twenty-five drops, the beats were eighty; in eight minutes, seventy; and in fifteen, forty-five; in twenty-five, forty, and very firm.

In the third frog, the beats on opening were ninety-two per minute; in four minutes, after injecting fifteen drops in each thigh, they were only sixty-eight; in ten minutes, sixty-five; in fifteen, sixty; and in twenty-three, fifty-eight.

In another, after getting the beats down to forty-two with Iberis, and the heart in size and color like an unripe apple-pip, thirty drops of tincture of Aconite caused the beats to increase to fifty per minute, with stronger expansions.

I took a very large "bull-frog," and introduced, with a small syringe, two drachms of weak Iberis tincture in its mouth, and,

on taking out its heart an hour afterward, found it very much contracted and empty.

Then, to see how much the drug had affected the frogs, I opened the chest of one, injecting nothing in it, and found the beats to be ninety-five; in ten minutes they were ninety; and in thirty minutes eighty-five per minute; and the heart was larger than in those in which the Iberis was injected.

Below is a *résumé* of the several experiments:

On opening,	90	95	92
Four minutes after injection,	65	80	68
Eight minutes after injection,	60	70	65
Fifteen minutes after injection,	71	45	60
Twenty-five minutes after injection,		40	58
Thirty-two minutes after injection,	60		
Thirty-eight minutes after injection,	56		

Of course, experiments on the cold-blooded animal are not of as much value to us as are those on warm-blooded animals, yet I do not think any one will say they are entirely valueless. I give you the above experiments, and leave the reader to draw his own conclusions therefrom.



ARTICLE XXIII.—The Galvano-puncture in Ovarian Tumors.

BY N. B. DELAMATER,

Lecturer on Diseases of the Nervous System and Electrotherapeutics in the Chicago Homœopathic College.

Is there any advantage in treating ovarian tumors by the galvano-puncture over the operation of removal by the knife? This is a question which just now is being canvassed to some extent, both by surgeons and electrotherapeutists. The solution of the problem is of great importance, not only to the medical profession, but to mankind.

The operation by the knife is, as we all know, hazardous, a very large per cent. of the cases operated on proving fatal, and yet there is no doubt that it is good practice, and is the means of saving many lives, and the fatal cases are those, as a rule, who could

live but a short time without the operation. Now, in considering the galvano-puncture, we must inquire whether there are any grounds for the claim that it is, or can be, a substitute for the more formidable operation.

At present we cannot in all cases recommend it as a substitute, for we do not know enough about it yet to be able to promise a favorable result; it must of necessity be an experiment, but it has the advantage of being without material danger, in fact, I think, when properly performed, to be wholly without danger. We have reports of cases where cures have been effected, and where no result has been obtained, and a few cases where there has been a fatal result. In considering these, we must take into consideration the attending circumstances, in order to form a correct opinion.

First, as to the fatal cases, I have heard of only three, and in these the bad result was due to a lack of knowledge on the part of the operator. In two of the cases the positive needle was introduced into the cyst, causing inflammation, and the resultant death. In the third case both positive and negative needles were intended to be inserted into the tumor, but one of them was inserted in the abdominal cavity and in the aorta, I believe, and immediate death was the result.

Another case, where a good result was supposed to have been obtained, and which was reported as a cure, afterward returned, and was operated on with the knife, which resulted in death. When this case is closely examined, we find that it gives us no real light, as it was not at all a fair test, owing to the omission on the part of the operator to insulate that part of the negative needle coming in contact with the walls of the cyst, the edges of the puncture were consequently cauterized, leaving an actual orifice, through which the fluid from the cyst could find its way into the abdominal cavity. The patient soon after the operation turned over on her side, the tumor seemed to collapse, peritonitis set in, which was controlled, with an apparent brilliant result, but the subsequent history showed that the sac had not been destroyed, and there was a consequent return of the trouble.

When we come to examine the cases reported as successful, we must consider that some of them may also have subsequent histories that we do not hear of; also, that in some instances we do not

have sufficient evidence of the correctness of the diagnosis, neither have we any good ground for doubting the diagnosis. But still there are a few cases where there can be no question as to the diagnosis, and where the subsequent history of the patient is known, and the result all that could be desired. With these facts before us, how are we to advise? I should say that, in all cases where an ovarian cystic tumor is made out clearly, and the patient is able to go about comfortably, where there is no demand for an operation for one or more months, give the galvano-puncture a trial; if it fails, the knife can be used afterwards just as well. This method takes a much longer time to effect a cure, but with it there is little or no risk run by the surgeon or patient.

I should most certainly advise this treatment in the cases where the tumor is recognized when very small. On the other hand, where the tumor is so large as to seriously impede the moving about of the patient, the breathing, etc., where a month's delay may prove fatal, I could not advise waiting for the experiment of galvano-puncture, for we have not as yet a sufficient number of well-authenticated cases to justify us in taking the risk of delay.

Finally, I will say that I confidently believe that before another decade this plan of treatment will become generally recognized and largely practiced.

ARTICLE XXIV.—Morbus Basedowii.

By S. L.

ROSENTHAL in his classical work, *Clinic of Nervous Diseases*, enumerates as its first pathognomonic manifestation an *irritation of the heart*, appearing at first only after some exciting cause, but by and by, even during perfect rest, with acceleration of the pulse (120 to 160 beats to the minute), unrhythmical action of the heart, pulsating and buzzing in the carotids, in the mostly dilated bloodvessels of the thyroid gland, and frequently even in the abdominal aorta. Physical examination of the heart frequently reveals nothing abnormal. In other cases we meet systolic murmurs and hypertrophy of the heart, especially in cases of long standing.

After several weeks or months a *swelling of the thyroid gland* sets in. The gland, enlarged mostly only in one lobe and traversed by buzzing arteries, becomes more hardened only after years, and is rhythmically raised up by the strongly pulsating bloodvessels. At the same time, sometimes earlier, at other times later, the *eye or eyes show a decided protrusion*, which leads in time to that characteristic, fixed, staring look. The eyelids are enormously wide open, and they close or open more rarely and more imperfectly, and, as Graefe emphasized, the motion of the upper lid becomes deficient for fixing the line of sight. Stellwag observed stoppage of the lateral motions of both bulbi, with preservation of the power of convergence of the eyes. O. Becker found spontaneous arterial pulsation in the retina. The cornea loses in many cases its sensitiveness, its surface becomes dry, dim; and Graefe observed fourteen times ulceration on the eyes. The pupils were found normal, dilated or contracted, the conjunctiva reddened, sometimes chemotic; lachrymation is often copious. Ophthalmoscopically Graefe could only find in some cases a dilatation and a more serpentine course of the retinal veins.

Accompanying manifestations of the struma exophthalmica are paresis of the upper lid, partial facial paralysis, and bilateral palsy of the abducens (Stellwag); sensible and vasomotory disturbances: partial anæsthesia or neuralgic sensations in the course of the trigeminus, circumscribed dilatations of the cutaneous bloodvessels (the taches cérébrales of Trousseau, as erythema when touching the scalp), appearing uni- or bilateral. Stellwag observed paroxysmal blushing of one side of the face, with unchanged paleness of the other side, increase of temperature (Teissier, Cheadle, Eulenburg-Guttman), with sensation of heat and perspiration, œdematous swelling of the lids, of the conjunctiva, lips, and skin of the face. In one of Stellwag's patients swelling of the whole neck, with periodically appearing asthmatic attacks. Geigel, Solbrig, and Andrews also observed psychoses in the form of exaltation, melancholia, or even mania, which improved again with the amelioration of the other morbid symptoms.

This triad of symptoms may be sometimes disturbed by the absence of one or the other cardinal symptoms. Thus in fifty-eight cases noted by Busch the heart symptoms were three times

absent, and the struma four times. In the cases of Prael and Fischer there was only bilateral exophthalmos; but the looseness of the consensus between the motions of the lids and eyes, with other general disturbances, aided in securing the diagnosis of morbus Basedowii.

The anatomical examination reveals, as local disturbance in a number of cases, serous infiltration or proliferation of the retrobulbar fatty tissue. Naumann also found atheromatous degeneration of the arteria ophthalmica; Recklinghausen and Schoch fatty degeneration of the muscles of the eyes; Rokitansky, in a case of Schnitzler, the wall of the inner cavity of the eye, formed by the os ethmoideum, unusually strong, intruding convexly into the orbita, and greatly narrowing it posteriorly; the cells of the labyrinth of the os ethmoideum enormously large, full of puriform mucus; its walls very thin. In many cases the thyroid gland showed hyperæmic swelling, hyperplasia or vascular dilatations. The heart often showed nothing abnormal. In some cases there was amyloid degeneration of the cardiac muscles; dilatation or hypertrophy of the heart; valvular defects; atheroma of the large bloodvessels (in one case of Prael of the aorta descendens). Changes observed in the nervous system were: softened foci at the base of the anterior lobes of the hemispheres, softening of the thalami optici, corpora mamillaria, and of the cerebellum (in one case of Prael of embolic origin), and various changes in the sympatheticus. Thus Trousseau and Lancereaux, lately also Knight, found increase of the connective tissue, atrophy, and diminution of the nerve-cells of the cervical sympatheticus; Beveridge thickening and tuberculous degeneration of the sympatheticus and of branches going to the arteria thyreoidea inf. and vertebralis, with enlargement and induration of the median and inferior cervical ganglia, which, full of granulated masses, looked like tuberculizing lymphatic glands. In the case of Moore the nearly obliterated inferior cervical ganglion was only a mass of cellular and fatty tissue. Recklinghausen and Biermer found atrophy; Virchow enlargement and interstitial thickening of the cervical sympatheticus. In a case of Geigel both cervical sympatheticus were surrounded by a sheath of thickened, fatty connective tissue, but the nerves as well as the ganglia showed, microscopically, no change

except intense brown pigmentation. There were also adhesions of the spinal central canal, with increased consistence of the medullary matter, and slight proliferation of the neuroglia, and considerable hyperæmia of the finer bloodvessels of the spinal cord. Still in the cases recorded by Paul, Fournier, Ollivier, Rabejac, and Wilks, the sympatheticus showed, microscopically, no changes whatever.

Among etiological causes severe psychological alterations, mental or bodily overexertions, are often mentioned. Bouillaud saw the disease develop itself in consequence of onanism. Graefe witnessed the disease to come to its height in the course of a few days in consequence of an unusual sexual excitation. In one case of Begbie and in two of Graefe the first symptoms appeared after a severe knock on the head. Anæmia (after severe diseases, puerperium, hæmorrhages), high-graded nervousity, and hysteria are also mentioned; and we find, therefore, more cases among women than in men. Most cases happen between the age of twenty and forty; but Stokes and Trousseau observed it also in boys and in women above sixty.

Views greatly differ on the nature of this queer affection. Basedow, and after him Hiffelsheim and Beau, blame a degeneration of the blood, similar to chlorosis, for it; but experience speaks against this opinion, for among a large number of chlorotic patients similar morbid phenomena were never observed, and on the other side struma exophthalmica also appears acutely in persons of healthy appearance, in males and children, and from most diverse causes (traumatic, psychological, sexual, etc., effects). Equally wrong is the opinion of Piorry, Bouillaud, and others, who deduct the pathognomonic symptoms from a pressure of the enlarged thyroid gland on the cervical bloodvessels and nerves, or on the cervical sympatheticus, for the swelling of the thyroid gland is not the first symptom; and even considerably large strumæ, or a pressure of tumors on the sympatheticus, never produce similar morbid manifestations. Stokes believes that struma and exophthalmos are only the sequelæ of a high-graded cardiac enlargement; but in many cases of this disease physical examination of the heart reveals nothing abnormal, and even high degrees of cardiac disease never run their course with similar symptoms.

Aran, Trousseau, Charcot, Graefe, and others, look to the sympatheticus as the source of the evil. Biffi and Cl. Bernard have demonstrated that the division of the cervical sympatheticus pro-

duces dilatation of the bloodvessels of the face and neck, also an increase of temperature on the ear of the affected side; also flattening of the cornea, contraction of the pupils, and retraction of the bulbus; only after galvanization of the central end of the divided sympathetic the slit of the lids dilates, the cornea arches, and the bulbus protrudes from its cavity. According to these experiments Geigel concludes that the struma exophthalmica also consists of a paralysis of the vasomotor nerves of the face and neck, running their course in the cervical sympathetic, with a simultaneous irritation of the oculo-pupillary fibres running the same course.

Many clinical manifestations prove the paralytic character of the diseased sympathetic in morbus Basedowii, as the paralysis of the sympathetic fibres of the bloodvessels of the head and neck leads primarily to hyperæmia, and secondarily to abundant deposition of orbital fat and of colloid or connective-tissue substance in the thyroid gland; the weakened innervation of the vasomotory cardiac nerves running their course in the sympathetic is the cause of the increased heart's action. Hence, also the increased temperature, the neuro-paralytic ulceration of the cornea (Graefe), the uni- or bilateral redness and flush of the face (Stellwag and Geigel), the circumscribed vascular dilatations of the cutis, and the partial œdematous swellings of the mucous membranes, etc.

Goltz considers the vascular dilatation not as a consequence of paralysis, but rather as an active procedure from increased activity of vaso-dilating nerves, and concludes, therefore, that the protracted vascular dilatations and hyperæmiæ, in the thyroid gland as well as in the orbita, lead to hyperplasia and fatty proliferation, and thus cause struma and exophthalmos. The increased afflux of blood explains also the irritation of the cardiac ganglia, the rise of temperature, and the psychical irritation. Basedow's disease should thus be considered as an irritating vasomotory neurosis; and the changing influence of the nerves, running conjointly in the course of the sympathetic, might find its derivation in the stimulation of the relative spinal centres.

Morbus Basedowii runs a chronic course from months to years. In recent cases, and in young persons, a cure is possible. In most

cases amelioration may take place, but relapses may set in at any time.

Eulenburg (*Ziemssen's Encyclopedia*, xii, 2, 77) acknowledges the influence of a neurotic disposition for most cases, hence its frequency in connection with hysteria, with epilepsy, and mental diseases. He differentiates between acute (accidental) and chronic morbus Basedowii. Nervous, especially hysterical, symptoms precede the eruption of the disease for a long time.

After reciting the usual complex of symptoms he mentions as nervous disturbances the low-spiritedness so often found in women suffering from morbus Basedowii gravior. They often complain of intensive (sometimes unilateral) headache, vertigo, incapacity for work, forgetfulness, and weakness of mind; excruciating sleeplessness, with the fear of becoming crazy. Bulimy, loss of appetite, disgust for all food, nausea, vomiting, with consecutive emaciation, were also observed. All these manifestations, especially the psychical ones, are usually not present at one and the same time; or they may increase or decrease according to the intensity of the capital symptoms; and they may even temporarily disappear. Menstrual anomalies, especially amenorrhœa, are frequent. *Leube* mentions a light sclerema on the skin of the face and back of the hand. *Chvostek*, cases of ephidrosis unilaterialis, with simultaneous contraction of the pupil of the same side. *Ebstein*, a case of hyperidrosis unilaterialis, with struma and hypertrophy of the left ventricle.

The cause of the disease is mostly a protracted one. In some cases pregnancy exercised a favorable influence. In most cases the prognosis is unfavorable on account of the consecutive changes in the heart. The continued increased labor of the heart leads to dilatation of both ventricles and to compensating hypertrophy, and any disturbance of such a compensation may hasten the fatal issue. In other cases death ensues from exhausting marasmus, or from an intercurrent disease (pneumonia, apoplexy), or from other complications, especially tuberculosis and valvular diseases of the heart. *Fournier* describes a case where death ensued from progressive gangrene of the lower extremities, although no reason could be detected for the suddenly suspended nutrition of these parts.

In analyzing the symptoms, in order to build a theory on it, Eulenburg acknowledges that the results so far are not satisfactory. Trousseau and others consider the struma and exophthalmos as the consequence of a congestion to the upper part of the body, whereas, *vice versâ*, the menstrual disturbances, especially the amenorrhœa, might be considered as the consequence of a diminished flow of blood to the lower part of the body, and the cause of the hyperæmia is a dilatation of the bloodvessels from paralysis of the vasomotor nerves running in the cervical sympatheticus, but, though the Basedowian struma may possibly originate in an arterial and venous dilatation of the bloodvessels, still proof is still wanting that it is connected with a paralysis of the vasomotor nerves.

The second cardinal symptom, the exophthalmos, has diverse genetic causes, especially venous hyperæmia and increased development of fat in the cellular tissue of the orbita. That an abnormal hyperæmia exists during life is rendered probable from a similar state in the struma, and from the observation that the exophthalmos decreases with a diminution of the cardiac palpitations, and that it increases again with an augmentation of the activity of the heart, and that it nearly passes off by pressure or after death. As a third cause of the exophthalmos might be considered the contraction of the smooth muscular fibres of the orbita (of the musc. orbitales situated near the fissura orbitalis inferior, and innervated by the sympatheticus). H. Müller also observed other smooth muscles at the upper and lower eyelid which may also aid in the protrusion of the bulbus, as their contraction dilates the slit in the lids, and experiments prove that these muscles are innervated by the sympatheticus.

The third cardinal symptom of this disease (frequently the first one observed), the palpitations and the acceleration of the frequency of the pulse, is now mostly considered as a functional disturbance of the cervical sympatheticus, where the excito-motory cardiac nerves (the fibrillæ accelerating the activity of the heart) run their course. Friedreich, on the contrary, regards the palpitations as a symptom of paralysis of vasomotory nerves, and also explains the exophthalmos as originating in vasomotory paralysis, and thus causing a hyperæmia of the orbita. May not the idea be justi-

fiable, that in the cervical sympathetic states of stimulation and of paralysis may be simultaneously present, and that the lesion produces in some fibrillæ increased irritation, and in others a paretic state, as a similar state has been observed in diseases of peripheric nerves ?

In relation to treatment dietary rules are of the greatest importance ; avoidance of all emotional or bodily excitation, also of the coitus ; mild, nourishing food (milk in large quantities, and vegetables) ; total exclusion of all exciting beverages, as coffee, tea, liquors ; constant residence in the fresh air, especially in the country or in mountainous regions, not too high. Of mineral springs the mild ferruginous ones have been recommended. Graefe recommends, for the exophthalmos, pencilling with iodine between the eyebrows and the upper eyelid or inunctions with an ointment of iodide of potash, compressive bandaging, local electrization ; in high-graded cases, the tarsoraphy, in order to prevent malignant affections of the cornea. Where the latter are already present the eyes must be protected against all noxæ, covered with moist compresses, and eventually tarsoraphy may be also advisable. Galvanization of the cervical sympatheticus acted beneficially on the struma and exophthalmos, but it failed to diminish the activity of the heart. The general state of the patient also improved under galvanic treatment, the chlorotic manifestations diminished and the normal menstruation improved quantitatively and qualitatively.

A great deal of pathology, but very little of therapy. Traube, Niemeyer, and others, though they gave up the idea of chloroanæmia as the cause of the disease, still cling to iron and quinine ; Eulenburg, Rosenthal, and the galvanized branch seek their salvation in galvanization ; a third class relies on nature, and sends their patients to mineral springs, and hope from rural surroundings, mental rest, and God's free air, a restoration to health.

Homœopathy, though nearly a century old, has so far very little to show here in her literature, though we should think that some of our latter-day saints might have observed it, for, according to English authorities "Graves's Disease" is not so very rare. Still Ruddock does not mention it. In the *British Journal of Homœopathy* we find only one article on it, by Dr. Massy, but thera-

peutics are not mentioned. The same dearth reigns in our American literature, and it may be worth while to study our *Materia Medica*, in order to find out the similia to this diseased state, or might it be, as Dr. Lippe on another subject remarks, that under homœopathic treatment the disease will never reach such a degree, that this triad of symptoms shows itself in its full vigor. Here again, like in so many other nervous disorders, the prodromal stage is of the utmost importance, for Hirsch (*N. A. J. of H.*, xix, 304) is right when he blames abnormal assimilation as the starting-point of the disease, and he tries to cut the Gordian knot by adducing cases of an altered relationship in the polarity between spinalmotory and sympathomotory nerves; then he concludes, per analogy, that the Basedowian disease rests on a disturbance of the normal and regular action of these two motory factors, which influence so greatly the action of the heart and of the bloodvessels. He cured his cases with *Natrum muriaticum*, *Calcarea carb.*, *Spongia*. Sana (*N. A. J. of H.*, xxi, 432) recommends *Lycopus Virginicus*, as it produced in provers abnormal action of the heart with a noticeable difference between the cardiac power and pulse force, and under its use the exophthalmos greatly diminished.

Allen and Norton (*Ophthalmic Therapeutics*, 147) favor galvanization of the sympatheticus as an adjuvant combined with internal medication, but doubt the utility of tarsoraphy or of tenotomy of the levator palpebræ superioris. To promote a permanent cure, rest, especially in the country, freedom from all excitement, especially emotional, exercise in the open air, a generous diet, and abstinence from all stimulants, should be insisted upon. For medicinal treatment they recommend:

Amyl nit.—Cases have been entirely cured by olfaction of this drug. The eyes are protruding, staring, and the conjunctival vessels injected, as well as those of the fundus. Especially indicated when there are frequent flushes of the face and head, oppressed respiration, etc.

Cactus grand.—Prescribed from the heart symptoms, cases of exophthalmic goitre have been improved.

Chloroform.—It is said to have improved a case occurring in a woman, which came on after the administration of chloroform.

Ferrum.—Both the iodide and acetate have been followed by favorable results, especially when coming on after the suppression of the menses, protruding eyes, enlargement of the thyroid, palpitation of the heart, and excessive nervousness.

Lycopus Virg. should, judging from the provings, be a valuable remedy in this disorder. But, though experience gives us some good results, they are not so great as one would be led to suppose.

Spongia.—Exophthalmos, enlargement of the thyroid, and palpitation of the heart; great uneasiness and easily frightened, especially at night; stitches in the ball and burning around the eyes, with lachrymation when in the light; often the eye feels twisted around; chromopsis (especially deep-red) and photopsies, even when the eye is closed at night.

Natrum mur. and *Baryta carb.* are reported to have cured well-marked cases.

Other remedies which have been recommended are Bell., Brom., Calc., Iod., Phosph., Sil., and Sulph.

Of Hale's *New Remedies* an especial mention deserves, not only *Lycopus Virginicus*, with which two cases greatly improved under my treatment, where the heart and struma symptoms were well pronounced, although the exophthalmos was only slight in comparison with the other symptoms, but also *Badiaga*, the compeer of *Spongia*. Hahnemann considered it an antipsoric and antiscrofulous remedy, which means that it acts well in cases of faulty nutrition. Allen (*Encyclopedia*, ii, 25) gives us among its symptoms: headache, with slight aching pains in the posterior portion of both eyeballs, aggravated by moving them in either direction; severe vibrating, tremulous palpitation of the heart, even while sitting or lying quiet, upon the least elating or other emotion of the mind; while lying in bed forcible pulsations of the heart felt and heard, extending from the chest up into the neck upon the slightest emotion or thought; glandular swellings on the left side of the face, throat, and neck, nearly all of the size of a hen's egg, some hard, some suppurating.

Still we miss in *Badiaga* the protruding staring eyes as found in *Spongia*, and although both remedies have spasmodic closing of the eyes, we meet only in *Spongia* eyelids torn wide open. Chronic glandular enlargements are found in both remedies, but certainly

the struma of Graves's disease is never hard, as the swelling does not originate in the connective tissue, but is caused by a dilatation of the afferent and efferent bloodvessels. Both have palpitations, the pulsating sound being even heard in the ear, aggravated by the slightest exertion, but in *Spongia* it seems bodily exertion aggravated, whereas in *Badiaga* it is mental or emotional. Moral and physical debility are characteristic of both sponges, but it is more prominent in *Spongia* than in *Badiaga* where erethism rather prevails. But according to Hahuemann the *Spongia fluviatilis* is more of an antipsoric (abnormal assimilation, and thus abnormal nutrition of the tissues) than our common sponge. It is a pity that we do not know the action of *Badiaga* on the functions of the female genital organs, as *Spongia*, like *Calcarea* (sponge contains lime), gives us rather too early and too profuse menses than amenorrhœa.

We agree with Sana of Germany, with our own Hale, and with other writers, that *Lycopus* covers more symptoms of Basedow's disease than any other remedy. It gives us, according to Hale (*Therapeutics*, 403), the cardiac irritability with depressed force, and in two provings the oppressed action of the heart was observed, so that the prover could neither walk fast nor go up stairs in a hurry (*Calcarea* again). It cured (Morrison, Sana, etc.) several cases of protrusion of the eyes with tumultuous action of the heart; we find engorgement of the uterus and heat of the vagina, leading to menorrhagia and metrorrhagia. Whether it acts on the glandular system, and especially on the thyroid (engorging it with blood and thus producing a swelling, as it does in the female sexual organs), is still doubtful, and further observations are necessary.

Amyl nitrite is another valuable remedy to the disease in question, especially as we read in the *U. S. Dispensatory*, "that its power over all forms of spasmodic diseases is exerted by virtue of its direct action on the ganglionic centres of the sympathetic system. The vaso-motor nerves, which are a part of the great sympathetic system, supply the muscular coat of the arteries, and thereby regulate the contraction and dilatation of these tubes, and so determine the amount of blood which shall pass through them. When it is given rapidly the lungs and brain are found blanched

and the left side of the heart empty, though the right cavities are gorged with blood." What a pity that the action of such a remedy is so evanescent, as we read among its symptoms: anxiety as if something might happen, must have fresh air; protruding, staring eyes with bloodshot conjunctiva, dilated pupils; under the ophthalmoscope the veins of the disk were seen to become enlarged, varicose, and tortuous; præcordial anxiety, the beating of the heart and of the carotids very marked; pulse increased in frequency, but not in force; general relaxed, weak feeling all over the whole body. Dr. Brunton showed that it relaxes the whole arterial system, probably by partially paralyzing the sympathetic ganglia and motor nerves.

But, after all, none of the remedies so far mentioned go to the source of the evil and eradicate it. Morbus Basedowii is a constitutional disease and it takes constitutional (antipsoric) treatment to make a more healthy assimilation, thus a more nutritious blood, and our remedies must at the same time be able to remove those fatty deposits which weaken the heart and partially cause exophthalmos as well as the goitre, keeping always in mind that we have not to deal here with stone-like induration of the glands, but with a soft interstitial deposit and an overfilling, a stagnation, in the bloodvessels. Allopathic authorities, especially the older writers, claim that *Baryta* resolves and liquefies abnormal accumulations wherever found, and Hammond hit upon the pathological keynote for the use of *Baryta*, namely, hypertrophy of connective tissue, and the consequent atrophy of nerve-substance is then a necessary result of such a condition. Professor Liebold (*Transactions of American Institute*, 1874) praises *Baryta iodida* for phlyctenular conjunctivitis and keratitis in extremely scrofulous and debilitated specimens of humanity, and remarks: "Recent researches seem to prove that pressure or irritation of the sympathetic nerve in the region of the neck may be or is a source of certain forms of ophthalmia. In some cases of scrofula (psora) the course of the lymphatics feels like a string of beans; everywhere between the muscles down to the spinal column they can be felt of all sizes and all degrees of induration. These are the cases for Barium iodatum. The Calcarea patient is often round and fat, and sometimes of precocious intellect; the *Baryta* patient

quite the contrary, stunted in everything. *If there is any fat it is collected in fatty tumors.*" Allen (*Encyclopedia*, ii, 58) gives us such heart-symptoms as violent, long-lasting palpitations; palpitation of the heart, which is renewed when thinking of it, for then it makes her anxious; attacks of choking in the throat after dinner, when sitting or writing, with sensation as if the thyroid gland were pressed inward, which thereby impedes respiration; and in *Baryta mur.*, beating of the heart irregular, pulse scarcely perceptible. We find menstruation scanty as well as too early and too profuse. *Baryta mur.* is said to induce menstruation.

Natrum muriaticum.—Hirsch cured one of his cases with this remedy, as it has specific relations to depressed vegetative vitality. The symptoms were, steady, dull, hasty purring with constant irregular beating of the heart, pulse frequent and irregular, swelling of the thymus gland, and staring, protruding eyes. Under its use after two periods had passed by without even a show, a copious menstrual discharge took place on the tenth week. Bæhr commends it in chronic cases where the patient has a grayish-yellow look and the spleen and liver are very much enlarged, and Bayes (*Applied Homœopathy*, 122) speaks highly of it in a kind of passive hypochondriasis with a sort of despairing hopeless feeling about the future, accompanied by dryness of the mouth, irritable mucous membrane, often with sore tongue and slight ulcerations, and almost invariably chronic constipation with hard stool. Farrington (*Supplement to Comp. Mat. Med.*, 26) refers to *Natrum mur.* as causing paralysis from emotion, pains, onanism, excesses in liquor, hence from direct nervous exhaustion, and the characteristic alternations of symptoms shows its efficacy in nervous diseases, especially hysteria. Rummel praises it in protracted cases of chlorosis with deficient nutrition, and dirty, flaccid, torpid skin. Among its eye-symptoms we read, dry feeling in the eyes, as after long weeping, ulceration of the cornea (Farrington), serofulous ophthalmia, amaurotic obscuration from debilitating nervous losses; scanty, delaying menses, followed by profuse menstruation; difficult swallowing as from a plug in the throat; goitre with chronic sore throat, aggravated by coughing and swallowing; continuous pains in the heart, especially at night; palpi-

tation of the heart from the slightest motion; fluttering motion of the heart; irregularity of the beats of the heart; full and undulating pulse in the whole body, even during rest; pulsations in the whole body, which cause every part of the body to move.

Calcareo carbonica is not excelled by any remedy in its specific relations to a depressed and alienated vegetative vitality, and by producing thus a better state of assimilation and formation of healthy blood, the nerves will be better fed, and improved innervation will necessarily cause a better state of health. There are so many valuable preparations of lime that we can certainly suit the different constitutions and the different states of the human body. The characteristics of this great polychrest are too well known and do not need repetition.

The same may be said of Aurum, Sulphur, Silicea, Sepia, even of Graphites, and Lycopodium, which may be indicated as intercurrent remedies according to the symptoms of the case.

The old school thinks highly of *Secale cornutum* in morbus Basedowii, although we cannot find any case recorded of a perfect cure with this remedy, inasmuch as absorbed in the blood *Secale* is supposed to cause contraction of the bloodvessels, and especially those of the cord. The action of the heart is retarded and from large doses may even be stopped in diastole, and, according to Eberty, the Ergotin influences here the vagus branches of the heart. The peripheric vessels contract through the action of the vasomotory nerves on the muscularis of the arteries. Handelin observed from hypodermic injections, made distant from the heart, first a rise, and only after the Ergotin had passed the right heart and had been carried into the lesser circulation, a fall of the blood-pressure. So much is certain, that Ergotin contracts the lumen of the arterioles in general, and especially the capillaries of the cerebro-spinal system, and that it reduces the irritability and reflex activity of the peripheral sensible nerve-branches (Koehler, *Mat. Med.*, 204). If so, it ought to be homœopathic to our disease. Physicians of our school have used it with benefit in deepseated, inveterate affections, where the circulation is at fault, especially in thin scrawny women affected with a kind of passivity and atony. Among its symptoms hinting to Graves's disease, we find, pressure in the ball of the eye, the eyes stare, great obscuration of sight;

suppression of the menses ; and again as a curative symptom, too profuse and too long menstruation, weariness and numbness of the extremities, violent palpitation of the heart with contracted and frequently intermittent pulse.

Antipsoric treatment must be our sheet-anchor in this disease, and we may be certain that with *patience and endurance* we may be enabled to rectify the abnormal state of health and restore to our patients that boon, without which life is only a burden. Just such nervous disorders must even convince the most incredulous person that we cannot treat diseases, that every case must stand on its own individual peculiarities ; and when after close study and comparison we find out *the* remedy, we may be sure of a step forward in the cure. Such comparisons must be frequently made ; and as long as the characteristic symptoms remain it will be far better treatment to hold fast to the well-selected remedy, but to change the potency. The *cito, tuto, et jucunde* is all for the patient, but the physician ought never to be *cito* ; and to be *tuto* he has to relinquish the *jucunde*, for certainly even old practitioners will often find it hard labor to find the similitimum. But *nil desperandum* must be inscribed on our standard, may the disease appear under any name whatever.

ARTICLE XXV.—The Pneumatic Treatment of the Respiratory and Circulatory Organs.

BY MARTIN DESCHERE, M.D.

It is the duty of every homœopathic physician to be familiar with all possible disciplines used in medical art. It would be eccentric for us to use nothing else than homœopathic remedies in each and every case of sickness, where we might succeed better and quicker with the knife, a splint, an injection, gymnastics, sea-bathing, or mountain air, etc. ; combining those measures, if necessary, with the appropriate homœopathic medication. We should be just as much to blame, ignoring the manifold ways to gain health beside and in combination with homœopathy, as our old-school brethren ignoring homœopathy as *a* therapeutic law. We

must not forget that the only way in which we differ from allopathy is the principle in the administration of medicines; but that we not only have the right, nay, that it is our holy duty, to use all possible aid to cure our patients. The first paragraph in Hahnemann's *Organon* tells us: "The physician's highest and only duty is to make sick people well, which we call healing;" and § 2: "The highest aim of healing is a quick, easy, and permanent restitution of health, or removal and obliteration of disease in its whole extent, in the shortest, most reliable, and safest way, according to perfectly intelligible indications."

These words earnestly commend us to use every means to gain the "*highest aim of healing!*" and one of those "*shortest, most reliable, and safest ways,*" is handed to us in *atmospheric air in its condensed or rarefied condition.*

The idea of using air-condensation and rarefaction as therapeutic agents is by no means new. Already, in 1838, Tabarié made practical use of condensed air; even Henshaw experimented with it, although imperfectly, in 1664.

The experience with *rarefied air*, gained by men like Gay-Lussac, Biot, Forster, in balloons, as well as on high mountains, showed an *increase in the frequency of the pulse and respiration.*

The effects of *condensed air* are a *decrease in the number of respirations*; work is done with greater ease, hunger sets in sooner, and more intense, etc.

Since Tabarié and Pravaz, numerous physiological and therapeutical observations on condensed air have been published, especially by Von Vivenot, Jr., in Germany. According to him the principal action of condensed air consists in the following:

The most essential action is shown upon *respiration*. At first *the breathing becomes slower*, at the same time the *vital capacity of the lungs is increased*, which spirometry as well as mensuration on the thorax will prove beyond doubt. In consequence of the *larger volume of the lungs, inspiration is done easier and quicker*. The *exhalation of carbonic acid gas is greater*, at the same time under the increased air pressure the *supply of oxygen is correspondingly increased*, and the consequences show themselves in the rise of the temperature of the body, increased muscular power, more and stronger want of food, decrease of fat, etc.

One of the most striking effects of condensed air is the *altered distribution of blood through the body*. It becomes less in the lungs, while the brain, the spinal cord, muscles, liver, spleen, and kidneys receive a larger supply.

The chief indications for condensed air by its effect upon respiration is in *dyspnoic* conditions, especially in *emphysema of the lungs*. For the reason that, under the higher air pressure, respiration is easier, slower, and deeper, the abdomen is flattened, and the diaphragm is able to descend lower; as, furthermore, the inhalation of oxygen and exhalation of carbonic acid are increased, the condensed air must naturally remove dyspnoea directly. This is but palliative, and only by exhaling into rarefied air, as we shall see below, the lost elasticity of the air-vesicles will be permanently restored.

Almost all authors who have gained experience in the pneumatic treatment report in the first place improvements in and recoveries from emphysema.

Bertin treated 105 such patients, of which 13 had pure primary emphysema; the rest were also troubled with catarrh; those 13 were all cured. Of the remaining 92, 67 were perfectly and permanently cured. The duration of treatment was between thirty and forty sittings.

Sandall treated 479 emphysematics. Of 41 who did not suffer from catarrh at the same time, 40 were healed. Of 156 complications with chronic catarrh, 116 were healed. 212 out of 282 cases were partly cured, partly improved; but these were combined with other bronchial and pulmonary troubles, etc.

The physiological action of condensed air upon respiration is a decrease of the number of breathings, facilitating them, and increasing the vital capacity of the lungs. Again, it acts with great power in hyperæmia, inflammation, and catarrhal conditions of the lungs. It has, therefore, been used as a remedy in *phthisis pulmonalis* and *tuberculosis*, but only palliatively; for, as we shall see below, rarefied, in combination with condensed air, is the real curative agent in these affections.

The *highly raised oxygenation* of the blood, and *increased assimilation* and *nutrition* by the pneumatic treatment, indicate its

application in a great many diseased conditions, based upon *malnutrition, anæmia*, etc.

As I have mentioned before, *rarefied air* acts in the direction of making *respiration more rapid, deeper*, and *expiration* especially is *very easy*, while *inspiration requires more effort from the respiratory muscles*.

Its therapeutic value has been mostly shown in the treatment of *phthisis*.

It is a fact, beyond doubt, that there is an *immunity against this disease in certain mountainous regions*. Especially in the American tropics this observation has been made most promptly. In Peru, on the Cordilleras, Mexico, etc., *phthisis* is very rare; and Muhry tells us of John Nicol, a physician in La Paz (a city of 40,000 inhabitants, 11,200 feet above the level of the ocean), who did not meet a case of *phthisis* during ten years' practice in that city.

According to Lombart *phthisis* does not exist in Switzerland above 4500 feet. Kirchenmeister, Brehmer, Tschudy, and all others agree that *phthisis* becomes rarer the higher we go, and that the immunity commences in many places already at about 1500 to 2500 feet above the ocean.

Observations and experiments have further shown that other factors which are combined with the rarefied air in mountains, as greater purity, lower temperature, greater dryness, ozone, etc., are of less account in their effects upon the lungs as might be thought at the first moment, for we have many places on the plains, and in valleys, where all these conditions are present without the rarefied air, and still *phthisis* prevails in spite of them.

We know that *phthisis*, or rather the disposition for cheesy degeneration of tubercular deposits, is most frequently found in anæmic and dry conditions of the lungs. The rarefied air is capable of increasing a flow of blood to the lungs (condensed air does the contrary), therefore it acts directly against that condition of the lungs which favors the *disposition to phthisis*. At the same time, the increased effort of inspiring rarefied air has a *great influence to strengthen the respiratory muscles*, and the decreased supply of oxygen renders deep inspirations necessary, thereby expanding the chest, preventing the formation of a paralytic thorax.

The benefit in the combined action of condensed and rarefied air in this disease thus easily explains itself. The former acts purely symptomatically by facilitating respiration, increasing the supply of oxygen, laying the foundation for a better nutrition; the latter acts more against the causes of phthisis and a disposition to it; therefore good results will be gained by combining the two.

Regarding the apparatus used for the application of condensed and rarefied air, numerous kinds have been invented, of which the one of Professor Waldenburg, in Berlin, is the most perfect for practical use, as well as for scientific investigations. We certainly have to use the most exact measures for diagnosis, to which Waldenburg added a new instrument, the *pneumatometer*, used for some time by physiologists only, to ascertain the *respiratory power* of the lungs; it differs from the *spirometer*, which shows the *vital capacity* of those organs.

Hawke, Biermer, Fraenkel, and others have constructed apparatuses for the same purpose, of inhaling condensed or rarefied air, but all of these are more or less incomplete, and not so easily managed. The preference which these more recent apparatuses have over the old pneumatic cabinets is the direct action of the condensed or rarefied air upon the organs of respiration and circulation, leaving the balance of the body under the common pressure of the atmosphere, which circumstance enables us to control the application of our agent with the utmost precision.

It would take too much space to mention single cases, and to specify them here. In conclusion, I only want to congratulate the medical profession, but more so the suffering humanity, that another method has been discovered for restoring health where other means have so far failed. It is certain, and cannot be disputed, that the more we use mechanical means in combating disease, the surer shall we become in bringing medical art nearer to mathematical precision, and another step in this direction is the pneumatic treatment of the respiratory and circulatory organs.



**ARTICLE XXVI.—Homœopathic Medical Society of
the State of New York.**

THE Twenty-sixth Annual Meeting will be held in the Common Council Chamber, Albany, Tuesday and Wednesday, February 13th and 14th, 1877, at 10 o'clock A.M.

BY-LAWS, SECTION 14.

“ At the meeting of the Society the following shall be the regular order of business :

First Day.

1. Communication from the President.
2. Reading of the minutes of the last meeting.
3. Report of the Executive Committee on Credentials.
4. Election of officers, chairmen of bureaus, delegates to other societies, permanent and honorary members previously nominated.
5. Report of the Treasurer and the auditing of his accounts.

No other business shall be considered by the Society until the foregoing items are disposed of, when subjects of a miscellaneous character may be entered upon. Annual address of the President in the evening.

6. Reports of Medical Committee.
7. Presentation of reports and communications on medical and surgical subjects.”

Contributions of papers, etc., earnestly invited, and the undersigned would be glad to learn the titles as early as possible.

ALFRED K. HILLS, M.D.,
Recording Secretary.

NEW YORK, 38 West Twenty-third Street.



STRETCHING OF NERVES IN TRAUMATIC TETANUS.—*Prof. P. Vogt* treated an old man who had injured his middle hand by the fall of a heavy stone, and whose wound granulated well, when two weeks after the injury he felt drawing pains in the neck, which gradually developed themselves in trismus and tetanus, in spite of large doses of Opium, Morphine, and local bath. Soon, also, intercurrent clonic spasms set in. As amputation as well as neurectomy was out of the question in such an old man, Vogt concluded to try stretching of the plexus brachialis. In narcosis the scar in the palm of the hand was divided under spray by a cross-cut, the edges taken off, and an underlying rigid cord of the palmar aponeurosis horizontally divided; on the dorsal side the edges fully removed. Both wounds were treated antiseptically, a longitudinal incision made on the anterior margin of the m. cucullaris, and the plexus brachialis exposed in the triangle formed by the cucullaris, omohyoideus, and scalenus, the sheath divided, pulled out with a blunt hook, and then supported by the index finger energetically stretched in centripetal and centrifugal direction. As the sheath looked remarkably red, it was found advisable to split it upwards, even to the cord, and removed by blunt hook and elevatorium. When the patient became conscious again after his narcosis, he could open his mouth and protrude his tongue, and from that time the tetanus was removed, and ten days after the operation the patient could be discharged cured. Vogt remarks that this case proves: 1. *The direct freedom from danger of the stretching of the plexus brachialis in an aged patient*; 2. *That the operation cuts short all tetanic symptoms.*—*Med. Neuigkeiten*, 48, 1876.

TO PREVENT POCK-MARKS IN VARIOLA.—*Dr. Pennavaria* uses a powder containing four parts Flor. sulf. and one part Hydr. præc. rubr., as he witnessed also good effects from it in eczema and acne. He applies first a thin layer of glycerin on the pustule, which already is in the period of suppuration, and covers it with the powder. The glycerin insures the sticking of the powder, forms with it a crust, under which the new skin forms without leaving a mark.—*Allg. Med. Centralzeit.*, 86, 1876.

General Record of Medical Science.

Does Dentition Cause Disease? by Dr. L. M. Pollitzer.—Vogel publishes, in Ziemssen's *Encyclopedia*, an essay on *Dentitio Difficilis*, wherein he describes local and general diseases of dentition. As local diseases of teething he mentions: 1. Stomatitic catarrhalis, which, according to Vogel, frequently accompanies the cutting of a tooth. Pollitzer denies this *in toto*, as in most cases neither redness nor swelling can be observed in the gums surrounding the tooth; nor could such a stomatitis catarrhalis be considered a physiological process. 2. Stomatitis ulcerosa. 3. According to Vogel, the profuse discharge of saliva during dentition is a local disturbance, presenting in these little patients cerebral manifestations, as reflex irritation from teething. Pollitzer denies such teleological pathology.

As disturbances of dentition outside of the mouth, Vogel mentions: 1. Blennorrhœa conjunctivæ accompanying the cutting of the eye-teeth. Pollitzer denies this. 2. Vogel considers a moderate diarrhœa beneficial, a kind of physiological catarrhus intestinorum, preventing dangerous cerebral symptoms. Pollitzer considers such a diarrhœa as of rare occurrence, and, where present, depending on noxæ standing in no connection with teething. Such noxæ will cause a diarrhœa, whether the child teethes or not. 3. Eruptions on the skin, on account of a hereditary tendency and the tenderness of the epidermis, which come and go with every teething. Pollitzer never saw such a periodicity of exanthemata, and considers such constitutional or hereditary eruptions from dentition very problematical. 4. Last, but not least, the complications in relation to the nervous system, from mere twitchings to epileptic fits and idiocy, paralysis, and death. Vogel found such nervous disorders frequently complicating the process of teething, on account of the increased reflex irritability.

Pollitzer doubts the whole pathology of diseases caused by teething. It is too well known that the same diseases observed in children during dentition happen also at any other period of infancy, and the eclamptic paroxysms happening during dentition depend either on a fever or on an inflammatory lesion of the nerve-centres; or they may be essential or toxic, or the beginning of true epilepsy. The increased reflex irritability of infancy as a physiological criterium does not exist, or rather in a certain way it is rather less so than in grown persons. New-born children may be exposed to intense atmospheric, termic, and mechanical irritations, even to operations, without any manifestation of a reflex action; in fact they show a kind of apathy to intense irritation of the higher sensory nerves. Children bear very painful affections without being attacked by reflex spasms, where the same in grown-up persons may cause an increased irritability—*e. g.*, after sleeplessness; after mental excitement. Hysteria, the disease of increased reflex irritability, is no infantile disease. Neuralgia and chorea are never observed during first dentition, and *reflex irritability during that period is not increased*. Experience also teaches us that very severe dental irritation, emanating from a

carious tooth, shows just as little a reflex symptom as the irritation emanating from a tooth cutting through. It is not a disturbed evolution which causes disease, but a diseased state will disturb the evolution.

Nor can we accept diseases of dentition from an etiological standpoint. *Post hoc, ergo propter hoc*, is as wrong here as it has been found wrong frequently before. We have also no means to hurry up the cutting of the teeth, as our therapeutical measures must be based on general principles without becoming biased by preconceived notions.—*Intern. Presse*, viii, 1.

Differential Diagnosis between Cerebral Apoplexy and Emboly of the Cerebral Arteries.

APOPLEXY.

EMBOLY.

Atheroma of the arteries.	Age less advanced, preceding articular rheumatism.
Hypertrophy of the left ventricle.	Valvular defects.
Shrinking of the kidneys.	Affections which cause formation of coagula.
Emphysema.	
Potatorium and other weakening relations.	
Prodromal manifestations.	Never any prodroma.
Incomplete pareses.	Extensive muscular paralysis.
Atactic aphasia.	Amnesic aphasia.
Symptoms of cerebral pressure; symptoms of congestion to the head during the paroxysm.	Symptoms of embolism in other arteries.
After some time only disappearance of the residual disturbances.	Very rapid or hardly noticeable disappearance of the residual disturbances.
Disturbed intelligence.	The former power of thinking remarkably preserved.
Stage of reaction.	

—*Zeits. f. Pract. Med.*, 81, 1876.

Mania Epileptica, by Dr. Weiss.—We understand under mania epileptica a psychosis, running its course by characteristic symptoms, by which it differs from any other mental disease. Its most frequent cause is a *trauma*. We lay great stress in every case of epilepsy to that characteristic symptom, that the aura is always the same in the patient. Thus also is it with the mental symptoms; in one case the fit may be always induced by a strictly localized headache, in another by a certain word, another sees always fire; the hallucination, the delirium, the feeling, the complicated action, which once induced or followed a fit, never changes, but repeats itself constantly, even in its minutest details, although a fit does not always follow. Most writers feel nowadays convinced that the spasms are not a *conditio sine qua non* of the epileptic fit. We see the same in the animal experiment; guinea-pigs made

epileptic by the division of the ischiadicus or by knocks on the head, do not fall into a fit after every irritation of the epileptogenous zone, but it stops with the typical scratching, which will be observed in every case. The absence of a perfect anamnesis gives no criterion against the epileptic nature of a complicated action, as enough cases are on record where hallucinations precede the spasm, and the patient has a pretty clear recollection of his hallucinations, and considers them as prodroma of the spasms. The typicalness of the attacks, the repetition of the symptoms in its smallest details during the paroxysm, hints to the epileptic character of the disease. Although trauma does not cause in all cases epilepsy, still far less has it been observed as a cause of pure mania. We are rather inclined to see in a trauma a cause for an incurable disturbance, be it a progressive paralysis, epilepsy or dementia, without prevalence of disturbances of motility. Another characteristic, differentiating epileptic mania from other primary mental diseases is, that they always appear and reappear as a primary acute affection, and though many years may pass, never pass into secondary mental troubles. We can only speak, therefore, of intervals between the paroxysms, but not of a cure, and readmission for the same train of symptoms into the hospital or asylum is of frequent occurrence.—*W. M. W.*, 17 and 18, 1876.

Milk-Cure for Pleuritic Exudation, by Dr. Jean A. Panas.—Jaccoud already recommended, 1862, milk-cure for pleuritic exudations, and for catarrh of the urinary organs, but found especially the milk-cure indicated in pleuritic exudations, as soon as the fever ceased, or when the exudation could be considered closed. Dr. Panas, on the contrary, begins the milk-cure during the febrile stage, and when the exudation is still increasing. He gives his patients 1 to 3 quarts of milk in twenty-four hours, and after 8–14 days, resorption of the moderate exudation takes place with increased diuresis. The milk did neither increase nor protract the fever. The urine daily discharged increased from 300–600 grs. to 1000–1500 grs. It is well known that milk-cures are also recommended for nephritis, whether it leads to dropsy or not, inasmuch as the milk prevents the escape of the albumen through the wall of the renal bloodvessels, especially as milk contains albumen and casein, which as colloid substance cause a high-graded endosmosis, and by their peculiar qualities not only do not escape themselves through the wall of the bloodvessel, but also prevent the escape of the albumen of the blood. Albuminuria of Bright's disease has been seen to cease under the influence of milk, and began again when the milk was left off. Jaccoud even affirms that milk-cures will reduce obesity by the increased absorption which it causes. Raw meat might do the same service, but it cannot be consumed in quantities large enough, and a febrile state would contraindicate it.—*W. M. W.*, 30, 1876.

Gelsemium sempervirens in Cramps, by Dr. C. Hertzka.—A piano teacher observed for two years a tired sensation in his arms, when playing the piano, which steadily increased, and he suffered then from vague pains, extending from the tips of his fingers to the scapulæ. Hydropathy and electricity (constant current), steadily applied for over a year, brought very little alleviation.

Tinct. Gels., eight drops three times a day, cured the case in three weeks, without causing any after-effects.—*Pest. Med.-Chir. Presse*, 25, 1876.

Carbolic Acid in Diabetes, by Dr. H. Fischer.—Diabetic patients show a great tendency to gangrene in all wounds, but this can be prevented by removing the sugar. (1.) A man of seventy-two years suffered from carcinoma of the lips simultaneously with insufficiency of the mitralis and diabetes. Under the internal use of Carbolic acid (0.30 pro die) the quantity of sugar gradually decreased, and after three months disappeared entirely. The carcinoma was then extirpated, and the cure passed off without any drawback. (2.) The right mamma was amputated in a man of fifty, suffering also from diabetes. A rapidly increasing gangrenous phlegmose appeared on the back, but which took on a more favorable course as soon as the patient was put under the internal use of Carbolic acid. (3.) A diphtheritic carbuncle in a man of sixty-six years, whose urine showed five per cent. sugar. Carbolic acid made the sugar disappear, and the inflammatory process stopped.—*Wien. Med. Wchsch.*, 36, 1876.

Diabetes, by Prof. A. De Giovanni.—We find in the *Annal. Univ. de Med. e. Chir.*, February, 1876, two cases of diabetes reported with extensive morbid changes in the central and peripheral nervous system. The first case is that of a woman of forty, who quickly succumbed to the disease. The spinal cord was of less dimension than usual, the cervical canal contained a murky fluid with detritus and epithelial cells in more or less fatty degeneration. Extensive softening of the medulla oblongata, of the right lobe of the cerebellum. Most ganglia of the sympathetic were diminished in size, and appeared to consist of a spongy substance. The second case was that of a farmer, who became diabetic after a fright, and soon succumbed to it. Spinal cord and cerebellum appeared normal, but the ganglia of the sympathetic, the splanchnici, the plexus hepaticus, and the vagi showed intensive degeneration, an abundant infiltration with lymphatic elements.

Salicylic Acid for Copious and Foul-swelling Footsweats.—Drs. Pagé and Kuester have used this acid with remarkable success. The latter gives the following directions: *R.* Acid salicyl., 8.0; *Talc. præp.*, 15.0; *Amylum*, 10.0; *Sapon.*, 5.0. This powder is put into the stockings, and after washing and drying the feet the powder is also put between and under the toes. The hypersecretion of the perspiration diminishes, and the skin, softened by the decomposition of the sweat, becomes dry and exfoliates in long pieces; whereas the new skin looks perfectly normal. The Salicylic acid acts not as a mere palliative, but exercises a directly curative effect. It does not suppress the sweat, but regulates the hypersecretion. We agree with Niemeyer, that the disappearance of footsweats is often the effect of a morbid state, but never its cause. Pagé uses the following formula. *R.* Acid. Salicyl., 0.5; Acid tannic, 1.0; *Talc. præp.*, *Rhizomat. irid. florent.*, $\overline{\text{āā}}$ 20.0, *f. p. D. S.*—*Zeitschr. f. pr. Med.*, 38, 1876.

Picric Acid in Diseases of the Nipples.—Dr. Charrier recommends Picric acid in diseases of the nipples. The acid must be pure, free from natron. He uses two watery solutions, one which contains 13 and one containing 1 per mille. With the stronger solution he paints the nipple, after carefully cleansing it before; the weaker solution he pours in a small vessel, and orders the nipple bathed in it for several minutes after nursing. The pains and the inflammatory symptoms cease after twelve to twenty-four hours, and the skin becomes tougher. He does not fear the absorption of the Picric acid.—*Gaz. des Hop.*, 61, 1876.

Cure of an Aneurisma by Torsion.—A patient of Dr. Caselli suffered from a traumatic aneurism in the central part of the thigh, and for two months the usual methods were tried without any benefit. Casselli then lifted the aneurismatic sac from its base, and twisted it around the fourth part of its axis. Pulsation ceased. He then fixed the sac in that position between two wooden splints. After three days the aneurisma was cured.—*Gaz. Hebd.*, 36, 1876.

Lupus verus and Pseudolupus, by Dr. V. F. Colomiatti.—Lupus nodosus, hypertrophicus, exfolians, exulcerans, serpiginosus, etc., are only different forms or stages of one and the same pathological process; but microscopically we must differentiate between lupus verus and pseudolupus. The latter is essentially identical with tuberculosis of the skin, but which need not always take on the lupous form. Histologically identical, but differing in relation to etiology and therapy, are the two subdivisions of pseudolupus: lupus syphiliticus and lupus serofulosus. True lupus, according to Colomiatti, is a neoplasma on a connective-tissue base, appearing in the form of nodules, which arise in the derma and again contain smaller nodules. The former consist of a reticulum, interspersed by many bloodvessels and blood-capillaries, containing many colorless corpuscles. The solitary nodules, contained in the larger ones, are mostly formed of epitheloid cells and some giant-cells. Neither the epitheloid elements nor the giant-cells have any other relations of continuity to the reticulum; there does not exist any continuity between the reticulum and the giant-cells, as we find it in the tubercle. The tissue of lupus verus never shows the tuberculous character, but rather a close analogy to the neoplasma which Ziegler found in his experiments. A mere external similitude exists between tubercle and lupus, both having the nodular form, but they are histologically totally different, and lupus and tuberculosis must therefore be considered as two entirely different anatomical forms.—*Med. Neuigk.*, August, 1876.

A Simple Remedy for Intermittent Fever.—Quinine is considered as a specific for intermittens, but it is not only high-priced but also its continued use is injurious to the human organism. During my travels in Hungary, says Dr. C. Brokes, in the malarious plains of the Theis and Maros, as well as during a prolonged residence among the Guarosi Indians of South America, I used a cheap remedy, which radically cures every case of ague in twenty-four hours by taking one or at the utmost two doses of it. I order a good handful of

fine clean kitchen salt (*Natrum muriaticum*) to be thoroughly roasted, if possible, in a new pan, or at least in one thoroughly cleansed, over a slow fire, till it takes on a brown color, similarly to lightly roasted coffee. From this roasted salt a grown-up man takes a full tablespoonful, rather more than less, dissolved in a glass of hot water, at once on the morning following the paroxysm on an empty stomach, and in quotidian fever a few hours after the paroxysm is over. As the remedy is only sure of its action when taken on an empty stomach, neither food nor drink must be taken. Though great thirst follow, the patient must only sip a little water through straws; and where the patient becomes hungry forty-eight hours after taking the salt he might take a little chicken-broth or perhaps a weak beef tea. Strict diet and great care not to catch cold, are of the utmost importance. I have used this remedy for the last eighteen years and it has never failed in a single case when rightly applied. Hundreds of cases in Hungary were cured by it, and during my last voyage to Buenos Ayres the crew of the steamer *Ibis* can testify to its beneficial action; thus the mate was cured by a single dose in twenty-four hours from an ague, which had troubled him periodically for years, and the cure remained a permanent one. In the tropics of America every European immigrant, as soon as he goes inland, is attacked by intermittent fever, which, if neglected, is too frequently fatal. Thus four hundred English people succumbed to it in the moist paludal forests of *Stapé*, in spite of the immense doses of quinine and brandy prescribed by their physicians; whereas the equally suffering German colony in the adjacent department of *Hagua* and *Paraguay* took their roasted salt, and no death occurred among them. In *Algiers* they consider the flowering oleander as the cause of intermittens, and the French government of *Oran* therefore ordered its total extirpation.—*Zeitschr. f. Pract. Med.*, 33, 1876.

(Whether roasted salt possesses this magic power or not, we can learn therefrom the great necessity of strict diet in the treatment of intermittent fevers. The neglect of these wise precautionary measures is perhaps the frequent cause of our lamentable failures. Two days' fasting (he says forty-eight hours) looks perfectly awful, and still it might be necessary; and my revered preceptor, Prof. *Walther*, used to say more people die from eating than from fasting, and certainly there is no danger of starving with chicken-broth and beef tea.)

Volvulus and Ileus cured with Effervescent Injections, by Dr. S. Adler.—A sewing woman, *æt.* 22, took suddenly sick with all the manifestations of internal incarceration, and in the right hypochondrium in the neighborhood of the *crista illi* a movable oblong swelling, three inches long and half an inch broad, could be detected. After trial of all the usual remedies and methods to cause defecation eight effervescent clysmata of half an ounce Bicarbonate of Soda, followed immediately by a solution of three drachms Acid tartaric to a pint of water, were given. Soon after the first injection the patient had the sensation as if something had burst in her abdomen. After the eighth injection copious, foul-smelling discharges followed, and all symptoms of incarceration were gone.—*Med.-Chir. Centralbl.*, 15, 1876.

The Round Ulcer of the Stomach, by Dr. Bæse.—The round ulcer of the stomach usually takes its origin when the stomach digests a part of its own walls, and this happens when the protection of the walls of the stomach against this process, namely, the free circulation of alkaline blood in the close vascular net of the mucous membrane, is arrested at some place. Embolism or hæmorrhage may be the cause of this disturbance. The latter cause is the most frequent one, as it is favored in chlorotic patients by fatty degeneration of the walls of the bloodvessels. Our aim must be to prevent such a digestion of the stomach itself. The digesting principle of the gastric juice, the pepsin, can only act with an acid reaction of the gastric juice. As the gastric juice is normally acid, and as it is secreted when ingesta irritate the gastric mucous membrane, it would be most rational to put the stomach at rest, and keep nutrition up by Leube's meat-pancreas injections. But most patients object to such treatment, and we prefer, 1, regulating the diet, so that the irritation of the stomach by the ingesta is reduced to a minimum; 2, neutralization of the acid reaction of the gastric juice; 3, the ingesta must remain only the shortest time possible in the stomach, in order to prevent acid fermentation and consecutive increase of the acid reaction, *i. e.*, frequent discharge of the contents of the stomach into the intestines. Zienissen recommends Carlsbad salt for this purpose. Leube recommends his solution of meat, milk and dry toast, to the exclusion of all other articles, horizontal position in bed, and poultices over the gastric region.—*Berl. Klin. Wochschrft.*, 32, 1876.

On Progressive Pernicious Anæmia, by A. Burger, M.D.—After reciting a fatal case which he observed, and after giving the results of the autopsy, he continues: "In every case, so far observed, intense fatty degeneration of the most diverse organs, especially of the cardiac muscles, has been found. Ponfick showed us that there are two different forms of fatty heart. One is seen in old persons with atheroma, arthritis articularum, etc.; the other in young persons suffering from chlorosis, anæmia, and stenosis of the vascular system. To the latter category belongs progressive pernicious anæmia. It also loves to attack younger persons, whose blood becomes changed quantitatively as well as qualitatively. Its quantity is diminished (oligæmia), but less than in simple anæmia; hence the organs are nearly devoid of blood. But also the cellular elements are, in relation to the red blood-corpuscles, in a minority, whereas relatively the white blood-corpuscles have not decreased, nor do they show any increase, as we see it in leucæmia. As, then, our disease has, in common with chlorosis, a decrease of the red cellular elements (oligocythæmia), it differs essentially in the color of the blood-corpuscles. In chlorosis their color is normal; in progressive pernicious anæmia their paleness is characteristic. We may suppose that these pale blood-corpuscles form a lower stage of the red ones, which by some unknown cause were prevented developing themselves. Hence they are unable, as carriers of oxygen, to deliver to the other tissues a sufficient quantity of the vitalizing element, and thus we easily understand the more or less extensive hæmorrhages caused by deficient nutrition of the vascular walls. Zenker and Schumann

led our attention to the stenosis of the arterial system, offering again a coincidence with chlorosis, which Virchow also considers an imperfect development.—*B. K. W.*, 34, 1876.

Hyperpyrexia in Acute Articular Rheumatism (Cerebral Rheumatism), by Professor Heubner.—A very ominous state develops itself sometimes in febrile articular rheumatism, rapidly leading to death, with a sudden rapid rise of temperature, and with severe cerebral manifestations. Wilson Fox reports two cases; in one the temperature rose to 43.8° C., in the other to 41.8° C., where he averted the fatal issue by energetic application of cold baths to the skin, and giving internally strong excitantia. According to Fox, death usually takes place in a few hours, when the thermometer shows 42.2° C. In Heubner's case the patient lived for eight days after the reduction of the fever, but still the patient succumbed to the consequences of the enormous fever, which caused degeneration of the cardiac muscle, and thus a weakened heart. Nevertheless, we must also consider another dire consequence, namely, the effect of an excessive fever on the central nervous system, and especially on the medulla oblongata. As a proof that the middle brain, especially the medulla oblongata, suffer essentially by such an enormous heat of the blood, we may cite the total cessation of all reflex action, and even after amelioration sets in the confusion in the reflex movements, so that the expiration consists in choking and vomiturations, passing over in yawning, in difficulty or impossibility of swallowing, in decubitus. Even at 43.5° C. we must not despair to save the life of the patient, inasmuch as the power of resistance of some nervous systems to heat differs in gradation, and it is at least worth the trial to rescue the patient from impending death.—*Deut. Zeitschr. f. Pract. Med.*, 35, 1876.

On the Application of Ice in Nervous Disorders, by Dr. Bourneville.—Charcot treated successfully several cases of hystero-epilepsy and epilepsy with the methodical application of ice. In ovarian hyperæsthesia the ice-bladder is applied for several hours during the day over the ovarian region; the fits became less frequent, and the general state of health improved. When immediately applied, the eruption of the fit, making itself felt by an ovarian aura, could be prevented. In very painful palpitations of the heart of a hysterical or epileptic nature, the ice-bag applied to the cardiac region gave great relief. In obstinate singultus hystericus the application of ice on the cervical spine was of decided benefit. In fact, Chapman's "thermotherapy" of the spinal column in different cerebro-spinal affections, deserves a more widespread application than it has received.—*Deut. Zeitschr. f. Med.*, 35, 1876.

A New Remedy for Phthisis.—The College of Physicians of Naples erected a new hospital near the crater of Solfatara, between Naples and Pozzuoli, Italy. The vapors rising from the crater are impregnated with sulphur and arsenic. Several patients in the first and second stages of phthisis pulmonalis were radically cured by a lengthened sojourn near the crater.—*Aerzt. Int. Blatt*, 36, 1876.

Reviews and Bibliographical Notices.

Rückert's Klinische Erfahrungen, by Dr. Oehme, 2d Lieferung von 1860 to 1870; Therapeutics of Diphtheritis, by F. G. Oehme, M.D. Boericke & Tafel, 1876.—Our good friend from Staten Island gives us here two pamphlets, and we thank him most heartily for both. Rückert has been for years a book on the table and not on the shelves with most of our older physicians, and they will hail with pleasure the continuation of it; we only hope that Dr. Oehme will be kind enough to give it to us in an English dress, so as to make it intelligible to our own physicians. The *Therapeutics of Diphtheritis* appeared first in the pages of the *North American*, and that ought to be a full guarantee for its intrinsic worth. We perfectly agree with Prof. Jones that a library of interleaved copies of such monographs would be such an arsenal as is not now accessible to many of us. Price 50 cents, just the price of two decent cigars. Moral: Smoke less and buy more books.

Ophthalmic Therapeutics, by T. F. Allen, M.D., and G. S. Norton, M.D. Boericke & Tafel, 1876.—The skilful surgeons of the New York Ophthalmic Hospital give us here the results of their many years' experience, and it will be of great aid to the professional oculist, but alas for those poor devils who are not up in the pathology of eye diseases, who hardly know the difference between a scleritis and a choroiditis, who neither know refraction nor accommodation, and who still have to cure their eye patients from the subjective more than from the objective symptoms of the case. Excellent as the work is, as far as it goes, we need a repertory to it, and we hope that Dr. Norton, who has begun this labor of love, will soon enrich our library with such a much-needed repertory.

A Treatise on Diseases of the Skin, by S. Lilienthal, M.D. Boericke & Tafel, 1876.—No plates; no photographs, even. We wonder whether the author of this treatise on skin diseases considers his description always so lucid that even a tyro can recognize the case and differentiate it from similar ones. We even miss too often the histological description, though they are found in full in most of the recent works, and woodcuts certainly cost only a trifle. Alas! we hear that miserable excuse, the work is written for homœopathic practitioners, who cure their patients in spite of your ever-changing pathology, and as long as the subjective symptoms are only given in full, the work accomplishes its purpose, and more ought not to be required. We do not know whether the treatise before us was written with such a sole aim, or whether it soared higher and wished to fill a niche heretofore too much neglected. We hope the author did not intend it only for a therapeutics of skin diseases, and we therefore sincerely trust, should a new edition be required, that the usually so liberal publishers will extend their liberality, and enhance the value of this serviceable treatise, by the addition of plates. Certainly it will enhance the price; still most buyers would perhaps prefer the outlay, as the gain is all on their side. R.

Atlas of Skin Diseases, with Descriptive Text and Notes upon Treatment, by Tilbury Fox, M.D. Lindsay & Blakiston, Philadelphia, 1876. Parts 1 to 6.—This may be our answer to the fair critic who honored us by her contribution. The authority of Fox is generally acknowledged, and we know that this *Atlas* gives a correct likeness of each skin disease, which cannot be said of many plates which disfigure some works of this branch of the healing art. The price is also a moderate one, and thus in the reach of even the middle class of our physicians.

General Introductory Discourse upon the Therapeutics of Midwifery, etc., by F. A. Rockwith, M.D., East Saginaw, Mich.—We have been lately overrun with introductory lectures, and most of them do very well to while away a few fleeting moments and then to be forgotten. We are glad to find one of exceptional merit, and certainly that of Dr. Rockwith fully deserves preserving. It is written in a scholarly manner, and from what the new professor promises (and we are sure he will give more than he promises), we can only congratulate the University of Michigan on this acquisition. It may be truly said of that young institution, the homœopathic faculty of the university, "by their fruits they shall be known," for we are sure the harvest will be rich.

Pneumatometry, by Edmund A. Murphy, M.D., of New Orleans; Aphasia, by the same.—Prof. L. Waldenburg, of Berlin, deserves the thanks of the profession, and still far more of suffering patients, for his introduction of pneumatometry into general practice, and Dr. Murphy, always alive for every new invention which promises relief, does the same for the homœopathic profession. It is indeed a great relief for persons suffering from asthma on the one side and from tuberculosis pulmonum on the other. We must have one of these pneumatic apparatuses for our hospital at Ward's Island, crowded all through the winter season just with such patients. We cannot understand why our instrument-makers charge such an exorbitant price, \$75, for it. Mester, in Berlin, sells them complete for 30 (Weil) and 40 (Waldenburg) thalers, and it certainly ought to be sold here for \$40. What Murphy does for the South, Drs. Dechere and Guernsey intend to do for us, and as their prices are very reasonable, we bespeak for them the good will of our colleagues.

For those who closely follow the late researches in the nervous system, the pamphlet on *Aphasia* contains little new, still we are indebted to the Doctor for the cases, clearly showing that strict individualization (never mind the alternation once and awhile) will soon alleviate, if not cure, such unpromising cases. Give us more of your experience in nervous disorders, and take our thanks for them beforehand.

Repertory to the New Remedies, by C. P. Hart, M.D., Author of an Analytical Treatise on Diseases of the Brain, Assistant Editor of the American Homœopathic Observer, formerly, etc., etc. Boericke & Tafel, 1876.—Really we must beg the Doctor's pardon; our space does not allow us to copy all the honorable titles he is entitled to, and we only thank Providence that we, in this free and enlightened country, have no stars and garters for our renowned citizens.

We are just now in a happy mood, or else we might quarrel with the Doctor for publishing a work "under pressure of a busy practice and without time for revision." Suppose the work would have appeared a few months later, where would have been the injury? and Dr. Hart would then have "known" with certainty that there are neither clerical or other errors. Just in the *Repertory* we rely with full confidence on the compiler that he has done his work scrupulously exact; in fact, we are really astonished at the few unimportant errors, and the thanks of the profession are due to Dr. Hart and his collaborators for this valuable contribution to our literature. We are sure that with the aid thus afforded, the *New Remedies* will be more frequently used than has been heretofore the case, and our patients will reap the benefit.

Physicians' Combined Call Book and Tablet for any Year, by Dr. Walsh.—Its small bulk will recommend it for general use, and being also interleaved, the stenographer (and every physician ought to be one) finds room enough to take notes of all his cases as they present themselves at the bedside. Memory is a good thing, but black on white is still better. The old *Physicians' Visiting List for 1877* is also on our table, ditto *Faulkner*, and all that is now needed is to have patients enough to fill them up during the first year of the next century; or, we might divide them up, one for paying patients, the other for doubtful ones, and the third, the largest one, for the deadheads; the last, after all, perhaps the best-paying ones, as the cashier is on high.

Theory of Medical Science. The Doctrine of an Inherent Power in Medicine a Fallacy. The ultimate Special Properties of Vitality and the Laws of Vital Force constitute the Fundamental Basis of Medical Philosophy. By William R. Dunham, M.D. James Campbell, Boston, 1876. This little book has lain on our table for some time awaiting notice. It came to us under somewhat peculiar circumstances, being sent by a friend with an urgent request to give the author, etc., etc. Our friend has evidently read only our author's chapter on Homœopathy, hence his fervent desire that we should give the author, etc., etc.

We have patiently read the book, and with all that well-known weariness with which one reperuses an old story, for Dr. Dunham has told an old story *without knowing it*. The ruling idea of the book is well expressed in the following excerpt from page 78 of the book:

"The doctrinal error, of *medical power*, has afforded ample opportunity for the development of quackery, and the supply to the patient of this *power in bottles*, to be substituted for vital power, in which the patient is most significantly deficient."

In other words, Dr. Dunham has grown up to a conception of the truth that for a debilitated patient quinine and iron is not a "tonic" *per se*—a bottleful of *strength*, which needs only a lodgment in the stomach to transfer its "power" from the bottle to the patient.

We do confess to feeling a little abashed at the fact that we have not put our rendering of the Doctor's postulate in such a logico-philosophical dress as he has arrayed; but considering that we homœopaths have no "science,"

he must, at least, allow that we have done pretty well in comprehending his meaning.

Dr. Dunham has had his little laugh at homœopathy—that is a “cheap and nasty” way of making a book sell, in certain quarters. Dr. Dunham has also gotten his knowledge of homœopathy at third hand; that is, from Dr. D. R. Gorton. Indeed, it is hardly fair to say at *third hand*, for there is almost no knowing how many changes Hahnemann’s ideas have undergone in the alembic of Dr. Gorton’s intellect. Suffice it to say, then, that Dr. Dunham has gotten so much of Hahnemann as had survived Dr. Gorton’s digestion. What shape it must have been in the reader can readily imagine.

Now Molière’s Monsieur Jourdain was surprised to find that he had been talking prose for forty years, and we are at a loss to conceive what particular emotion will pervade Dr. Dunham when he reads Hahnemann’s *Organon*, and finds that his whole book is only a third-rate comment thereon. But, be that emotion what it may, such an experience as that of M. Jourdain is in store for him, and Dr. Dunham may express himself on that occasion in the historic words of the brave Cambronne at Waterloo. (*Vide* Victor Hugo’s *Les Misérables*.)

The homœopathic reader will readily fall in with Dr. Dunham’s logic that no physician can peddle *quantitative* “power in bottles,” inasmuch as drug-quantity in our 30th potencies defies chemical analysis, while the qualitative *vis* of the same potency is as demonstrable in the healthy organism as is Marshall Hall’s physiological test for strychnia.

It is at least significant that whenever our avowed enemies go beneath the surface and *begin to think*, they invariably emerge bearing some new testimony to the truth of our system. As involuntary testimony to the truth of Hahnemann’s *dynamic* philosophy we cheerfully commend Dr. Dunham’s book to every homœopath. To be sure he tells us “nothing new that’s true, and nothing true that’s new,” but even such a telling as is his has a significance, considering its source, that will not be lost to him who observes the signs of the times. The homœopathic law long since found a lodgment in the “regular” mind, thanks to Ringer *et al.* and now the homœopathic philosophy finds an advocate in Dr. Dunham. “Next,” says our colored barber, and musingly we echo, “Next!”

THE REVIEWER REVIEWED.

EDITOR NORTH AMERICAN JOURNAL OF HOMŒOPATHY.

In your last number “one who has made ophthalmology a study” has done me the honor to publish a review of my work on *Diseases of the Eye*, occupying six and a half pages of your valuable quarterly. This is a favor rarely accorded a medical work in its fourth edition, and I beg to express my cordial thanks to T. W., not only for his elaborate article, but for the kindly interest taken in my book and its readers. In view however of the fact that he “has made ophthalmology a study,” I feel obliged to request the privilege of examining a few of his positions. Taking his strictures as a whole, I may say that they are sufficiently met by the few words of my preface distinctly stating that the work is intended, not for specialists, but for general practi-

tioners and students preparing for general practice. Fulness of treatment can therefore be expected in no part of the book. A thorough exposition of anatomy and physiology alone, would require a volume twice the size of mine, while a complete work on ophthalmology would make a book ten or twenty times as large. There is, therefore, no force whatever in such criticism as this: "If we are to have a text-book, let us have one which can govern us all, and by which we can all be guided, and not all of us be compelled to send our patients to him for treatment and for operations." My book is not intended to teach general practitioners to operate by any means. I will now consider such of the special points made by my reviewer as I think need attention.

T. W. says: "From his (my) description of the capsule of Tenon, one would suppose that he knew nothing whatever of the subject upon which he writes." He then quotes from my book where the Tenonian capsule is described as beginning near the point *where the ciliary nerves pierce the sclera*, and terminating *in the conjunctiva* near the cornea. T. W. says: "When in reality, as every anatomist is aware, the capsule of Tenon *commences at the optic foramen*, . . . being finally lost on, rather than inserted *into the sclerotic*, close to the cornea!" Now let us look at the *Graefe-Saemisch Handbuch*,* and we find this: "Es findet sich das sie vorne mit der *conjunctiva verwächst* und so eine kurze Strecke hinter der cornea endet. An der hinteren Hemisphäre des Bulbus *trifft ihr Ansatz* an demselben *mit dem Eintritt der ciliar nerven und Gefässe zusammen*," that is, it begins and ends as stated by me. To describe this capsule as "loosely embracing the optic nerve" is going pretty far back into the optic foramen as well as back into history. Indeed, the description by T. W. bears rather strong evidence of having been copied nearly word for word from a paragraph written by Stellwag, for the first edition of his book, published in Vienna fifteen years ago.

T. W. says: "Is he aware that in order to accurately ascertain the degree of tension, we must invariably use *two* fingers upon the one eye, and make pressure with them alternately, and if he is aware of it, why does he not say so, and not leave one in the dark?" I answer no, and surely my bold anatomical friend is not afraid of the dark. I am accustomed to press *very gently* with my forefinger upon the centre of the eyeball and then press in the same way upon my own eye. I consider this an excellent way of ascertaining the degree of tension.

T. W. says that the article in my book on accommodation of the eye, "is *most lame* throughout." He then goes on to emphasize his disappointment thus: "Not only are his statements incorrect, but they do not sufficiently approximate the truth to convey to the mind of any one a proper conception of the *simple mechanism of accommodation*. In very truth accommodation is *not* brought about by the action of the ciliary muscle upon the crystalline, but

* *Handbuch der Gesammten Augenheilkunde*, Leipsic, 1874, vol. i, part 1, page 57. This work, still in course of publication, will comprise everything of importance in ophthalmology. There will be 7 volumes of 2 parts each, the whole reaching in size a work of perhaps nearly 5000 pages. Professors Arlt, Wecker, Becker, Hirsch, Iwanoff, Manz, Merkel, and others contribute also.

by the action of the ciliary muscle upon the ciliary processes." What logical *finesse!* Because the muscle does not act *directly* on the lens therefore it does not act on the lens! Let us see to what terrible condition this logic will bring him. Suppose, for example, that T. W. were a wicked Hottentot with a ring in his nose, instead of the gentle and learned critic that he has shown himself. Let me assure him that I mean no disrespect by this illustration. I do not know even if wicked Hottentots are in the habit of wearing rings in their nose, but we may suppose it. Let us suppose further that a good Hottentot meeting the other, inserted his forefinger into the ring aforesaid and tweaked the wicked Hottentot's nose. Now, would the wicked Hottentot say that the *ring* tweaked his nose, or that the good Hottentot tweaked it?

He speaks of the "simple mechanism of accommodation" as though everybody knew all about it (except myself possibly), and yet nobody knows precisely how it is brought about. Arlt* says: "Wir sind noch im Unklaren ueber den Vorgang durch welchen die, Formveränderung der Linze zu Stande kommt." (The way in which the alteration in the form of the lens is brought about, is not yet clearly known to us.) Stellwag† says: "The exact manner in which the ciliary muscle causes an increased convexity of the lens is still uncertain."

The *Meyer-Block Handbuch*,‡ after stating the difference of opinion as to the way accommodation is produced, says, "Soviel aber ist sicher die einstellung für die nähe geschieht durch vermittelung der linse und des ciliarmuskels." (We are certain of only this, that accommodation is produced by means of the lens and ciliary muscle.) C. S. Fenner§ says, "the precise manner in which the ciliary muscle acts in producing accommodation is not yet satisfactorily determined." Carter|| says that accommodation is effected "by increasing the strength of the lens by the action of the ciliary muscle." He is careful, like most other writers, to state only what he knows. Five years earlier than this I said that "accommodation is brought about by the action of the ciliary muscle upon the lens, the surface of which is rendered more convex," etc. I supposed then that long before this we should know the exact mechanism of this action, but I was mistaken.

T. W. says, "as the muscle contracts these processes *are lifted off* from the zonula Zinnii," etc. I regret exceedingly to remark here that my accomplished critic is far beyond his depth once more. This is stated as a fact by him, while the real fact is that no man, living or dead, ever saw anything like a lifting off of the ciliary processes. What is really known about the movement of the ciliary processes is this. Coccius¶ saw the processes in accommodation press inwards and forwards. Sattler saw the space between the processes and the edge of the lens more clearly during accommodation.

* Ueber die Ursachen und die Entstehen der Kurzsichtigkeit. Wien, 1876, page 32.

† Am. edit., page 686.

‡ Handbuch der Augenheilkunde, Berlin, 1875, page 345.

§ Vision, its Optical Defects, etc., Philadelphia, 1875.

|| Diseases of the Eye, by R. B. Carter, F.R.C.S., London, 1875.

¶ Mechanism of Accommodation, Leipsic, 1868.

Becker* saw that the distance between the two was considerably greater during accommodation. Hjort† had an opportunity of examining an eye which had lost its iris from a wound. Repeated examinations showed that during accommodation the ciliary processes moved forward and inward, while the distance between the processes and the edge of the lens remained the same.

It is known that there is a movement of the ciliary processes. Exactly how this movement renders the lens more convex is not yet demonstrated. It seems highly *probable* that the lens assumes an increased convexity by virtue of its own elasticity. We know that in youth the lens is plastic, and it seems very probable that it may be elastic as well. The presumption is that it is elastic. We know that in accommodation it is made to assume a more convex form, and that its anterior surface is pushed slightly forward, without, however, changing its place *in toto*.

T. W. says, "It is *not pushed* slightly forward as he states" (and he puts the not in small capitals) "but moves forward by virtue of its own elasticity." I think I have clearly stated that no one at present knows the exact way in which the ciliary muscle produces a convexity of the lens. But even assuming the movement of the lens to be due to its elasticity, is it not correct to say that its anterior surface is pushed forward? Is not elasticity a force?

"Strange all this difference should be
'Twi'x tweedledum and tweedledee."

The paragraph in my book on accommodation was written six years ago, and there have been since then some advances in positive knowledge concerning this matter. I will state one or two facts, so that in case I do not properly revise the article in my fifth edition, T. W. may have a safe vantage-ground from which to overlook my shortcomings.

Coccius‡ noticed a change of position in the globe during accommodation, but Donders§ saw in accommodation a decided movement forward of the eyeball so that the upper lid was raised thereby.

The action of the ciliary muscle causes also a forward movement of the anterior choroid, the motion extending as far back as the equatorial region of the eyeball (Völkers).||

The sum, therefore, of all that is *known* in regard to the changes in the eye during accommodation, to state it concisely, is this:

- a. Contraction of ciliary muscle.
- b. Change of form in lens.
- c. Contraction of pupil, which is pushed forward while the periphery of the iris moves backward.
- d. Ciliary processes move inward and forward.
- e. Forward movement of anterior choroid, and of the eyeball.
- f. Convergence of the optic axes.

I should have been glad to give in my work a detailed sketch of the various theories regarding the mechanism of accommodation, including the interesting

* Medicin. Jahrbuch, Vienna, 1863.

† Klin. Monatsblätter für Augenheilkunde, 1876, p. 205.

‡ Op. cit., page 53. § A. F. O., xvii, p. 100. || Ibid., xix, p. 156.

and plausible one of our distinguished colleague, Dr. Dudgeon, of London, but the scope of my book forbade it.

T. W. then gives us some ingenuous remarks on the optical condition of the eye in hypermetropia and myopia, though his reason for it is not apparent. Probably where one has acquired the habit of accurate and felicitous expression it is hard to break off rudely, even if one happens to have come to the end. When arriving at presbyopia, however, he gets unsteady again. Presbyopia is an incurable affection caused by senile changes in the lens and ciliary muscle. The optical defect is neutralized by the use of convex glasses. T. W. says "it arises from *one or both* of two causes." His first cause is "partial or complete paralysis of the ciliary muscle." It would be extremely interesting to see a case of presbyopia due to paralysis of the ciliary muscle alone.

T. W. writes long and ably, as usual, on the treatment of accommodative asthenopia. He assures us that my advice to prescribe glasses of 30 and 40 inch focus, in some cases of hypermetropia of $\frac{1}{8}$ th or $\frac{1}{10}$ th, would "literally ruin the patient's eyes." They "absolutely need a 60, and with it they can use their eyes by the hour without tiring." Then he adds, "how manifestly injurious to furnish these patients with strong glasses," etc., and finally ends by the naïve remark that I am "not the only oculist" who has overlooked this point. These last words were probably thrown in to relieve the minds of numerous other oculists who might not unreasonably suppose that T. W. was devoting himself exclusively to me. Well, when I look back down the dim vista of a dozen years, and see in imagination a long line of asthenopic patients, each innocent nose of them bearing its injurious 30 to 48 inch eyeglass, a sad and weeping column, with only a "plus sixty" between it and happiness, I ask in my despair why T. W. so long preserved his cruel silence?

As I cannot afford myself the pleasure of following T. W. further, I go back finally to his allusion to my improvised ophthalmoscope. I said that in order to see into the eye it is necessary to throw light into it, and then to so place our own eye as to catch the returning rays. I said further, that with a bit of window-glass we could fulfil these conditions. Of this, T. W. says in his quiet and unassuming style as usual, "Does he mean this, or does he mean with a bit of looking-glass with a small central spot of amalgam erased, through which to look? With the former he would *utterly fail*," etc. "Why make such grievous errors?" etc. In the year 1862, Professor von Jaeger, of Vienna, brought one evening to his private class in ophthalmoscopy a bit of window-glass, with which he informed us that we could see the optic disk, and he thereupon demonstrated the truth of his statement. We all saw the disk, but of course indistinctly, as the amount of light thrown in and reflected back into the eye of the observer is small. As Professor Jaeger remarked, such an ophthalmoscope would answer to diagnose a beginning cataract or other opacities of the transparent media. One might reasonably infer, I think, from what T. W. says, that he is not familiar with the fact that *all* the rays of light do not pass through glass even when it happens to wear no amalgam on its back. Some of the rays are absorbed, and some are reflected from its surface. Any schoolboy will confirm this. The famous Jaeger ophthalmoscope, indeed, is provided with a plane glass for weak illumination, as well as a mirror with a hole in it.

H. C. ANGELL.

Vanishing of ideas or thoughts. See: Loss of memory. Acon.
Bell. Cham. Conium. Ipec. (momentary). Lach.
L. V. Defforat. Phos.
of senses. Comp.: Insensibility. Camph. Canth. Verat.
alb.

HEAD—PECULIAR SENSATIONS.

Aching in the head and epigastrium at the same time. Mangan.
Apoplexy. Acon. Arnica. Bell. Calc. c. Carb. v. Gels.
Glon. Natr. m. Nux v. Opi. Puls. (with loss of con-
sciousness). Verat. alb.
Bending; falling of the head backwards. Ledum. Spigel.
falling of the head forwards. Camphor. Coca. Cupr. Sar-
sap. (or inclination to).
falling of the head to one side or the other. (No reeling.) Argt.
nitr. Tarax.
*falling of the head to the right side, sensation or inclination
of.* Ferrum.
Buzzing. Zincum.
*Concussion, painful, of the brain, when shaking the head or when
walking.* Manganum.
Confused feeling. Bapt. Coccul. (after eating and drinking).
feeling and heaviness in the forenoon; better after dinner.
Nux jugl.
Congestion. See: Congestion; cause of vertigo; rush of blood to
the head. Æscul. hipp. Cact. gr. Caustic. Kali
chlor. Moschus. (relieved in the open air). Nux v. Pso-
rin. Sabina. Verat. vir.
Dulness. Comp.: Dulness of mind. Brom. Caustic. Chin.
Cobalt. Colocynth. Crot. tig. Kali brom. Kali c.
Lilium. Merc. Tarax.
painful, in the morning when awakening. Caust.
Emptiness, sensation of. Phos. Nux m. Senega.
Elongation (disagreeable) sensation of. Hyperic.
Enlargement and expansion, sensation of. Argt. nitr. Carbolic ac.
Cobalt. Lactuca vir. Mephites. Ranuncul. bulb.
and expansion, during stool. Cobalt.

Enlargement and expansion, and of the whole body, when looking high up in the street. Argt. nitr.

Falling of the head. See: Bending of the head.

Forehead, cold sweat of the. Verat. alb.

icy-coldness of the. Lachnanthes.

Fulness. See: Heaviness. Acon. Amm. m. Borax. Crocus sat. Digital. Lilium. Mephites. Merc. Podoph.

over the eyes. Podoph.

pressing upwards. Mephites.

and pressure at the vertex. Scrofularia.

Gloomy sensations. See: Sensorium of mind. Puls. Thea.

Headache: pains in the head. Comp.: Dulness; fulness; heat. heaviness; stitches. Acon. Æscul. hipp. Aloe. Apis. Argt. nitr. Arsen. Asa. f. Bapt. Bell. Bufo. Cact. gr. Calc. c. Calc. ph. Camph. Carbolic ac. Caustic. China. Coca. Coccul. Coff. Collinson. Comoclad. Cyclam. Ferr. Formica. Gels. Glon. Gnaphal. Hep. s. Hipp. Hydrast. Hydr. ac. Hyperic. Ignat. Iod. Ipec. Kali brom. Kali chlor. Kalmia. Lach. Lachnanth. Lactuc. L. V. Deffloratum. Laurocer. Lilium. Lobelia. Mangan. Magn. c. Mephites. Merc. per. Mer. v. Natr. m. Nitr. ac. Nux m. Nux v. Oxal. ac. Phos. Phytol. Plat. Podophyl. Psorin. Ptelia. Puls. Ranuncul. bulb. Robinia. Sac. lac. Sanguin. Sarracenia. Scrofularia. Secal. cor. Sepia. Silic. Solanum. Stannum. Stram. Sulph. Tarantula. Tart. emet. Verat. alb. Verat. vir.

aching. Manganum.

dull. Calc. ph. Verat. alb.

dull, from the temples to the forehead, worse on stooping; going off by bending backwards and pressing the head, but returning again when raising the head. Verat. alb.

dull, in occiput. Gnaphalium.

morning, brought on by the least concussion. Hep. s.

morning, worse at noon. Lachnanthes.

pressing. Asa. f. Phos. Stannum.

pressing in centre of the brain, after vertigo. Phos.

Headache, pressing in forehead, as if it would be pushed out; forehead feels enlarged. Nux m.

pressing in forehead, violent. Nux v.

pressing in occiput. Coca.

pressing from above, downward, into the forepart of the head. Phos.

throbbing. Chin. Ferr.

stunning pain in the back part of the head, which caused him to fall. Cannab. ind.

stunning pain and pressure in the middle of the brain. Nitr. ac.

stunning pain, with shootings. Natr. m.

stunning pain, with throbbing, all over the body. Iod.

stupefying. Æscul. hipp.

as if the eyes would be torn out, particularly on moving. (In pregnancy.) Coccul.

as if pressing the eyes out. Psorin.

as if torn and pulled into shreds. (After vertigo.) Plat. all over. Phytol.

commencing in the occiput, extending forwards over the vertex. Baptisia.

over the left eye. Sac. lac.

over the right eye. Sac. lac.

with aching pain in the supra-orbital region. Scrophularia.

with crampy pain, extending from the neck. Sarracenia.

with expansive pain. Carbol. ac.

with fulness over the eyes. Podoph.

with pain in left supra-orbital region, when going to bed. Formica.

with pain in single parts. Phytolacca.

with pain in temples. Hypericum.

with pain in vertex, following a vertigo in the occiput. Glonoin.

with painfulness and confusion of the brain. Carbol. ac.

with painfulness, as if the head had been lying too low during night. Phos.

with piercing pain in the brain. Ptelea.

with pressing pain from within outward. Lilium.

- Headache, with pressure and fulness at vertex.* Scrophular.
with pressure through the whole head. Stannum.
with severe pain in the cerebellum. Tarantula.
with stitches in one side ; one temple or occiput. Puls.
before vertigo. Merc. per.
after vertigo. Glonoin. Phos. Plat. Ranuncul. bulb.
- Heat.* Caustic. Lachnanth. Liliium. Natr. sulph. (rising from the body). Phos. (occasionally). Puls. (with pale and not hot face). Spongia.
flushes of. Cocculus.
extending from the abdomen. Lachnanthes.
with sweat on the forehead after dinner. Natr. sulph.
- Heaviness.* See: Fulness. Apis. Bell. Bufo. Camph. Chin. Gels. Glon. Lactuca v. Liliium. Magn. c. Magn. s. Nux v. Paeonia. Phellandria. Phos. Prunus sp. Puls. Secal. cor. Selenium (occiput). Thea (forehead).
and weight, with violent pressing in occiput. Bell.
and confusion in the forenoon, better after dinner. Nux j.
which inclines the head backward. Camph.
- Intoxication, feeling of.* Acon. Æscul. hipp. Agaric. m. Ars. Bry. Caustic. Coccul. Crocus sat. Ferrum. Gels. Glonoin. Hydr. ac. Ledum. Liliium. Magn. c. Merc. (after eating). Merc. per. Nux m. Opi. Phytol. (when rising and walking). Secal. cor. Spongia.
- Lightness, feeling of.* Gels. Nux v. Secal. cor. (in occiput).
- Looseness of the brain* (See: Motion of the brain), *feeling of, when stooping, and when raising up the head.* Bry.
- Mistiness within the brain.* Gels.
- Motion of the brain, sensation of.* Looseness ; shaking. Cyclamen. (when leaning against something). Rhus tox.
- Pain.* See: Headache.
- Pressing or pressure.* See: Headache.
- Reeling.* Aloe. Alum. Amm. c. Ars. Cannab. sat. Cicuta v. Conium. Ferr. Hydr. ac. Hyoseyam. Liliium. Magn. m. Nux m. Nux v. Oleander. Ol. an. Paeonia. Tarax. Thuja. Secal. c.
as if all the objects turned around him. Cicuta v.

- Reeling, as if the head would fall over.* Alum.
can't stand erect. Secal. cor.
painful. Ol. an.
- Rush of blood to the head, from the nape of the neck, across the vertex to the forehead, during motion.* Mangan.
of blood to the head, and epistaxis. Lach.
- Sensation as if the brain revolved around itself, and also all before it, when lying down.* Robinia.
as if the brain went up and down when stooping. Cobalt.
as if the head received a knock. Sarracenia.
as if the vertex was enlarged and driven upwards. Lachnanth.
as of a hot vapor ascending to the head. Bufo.
as of something rolling in the head. Robinia.
of undulations in the brain. Selen.
- Shaking of the brain, from a lessening of the blood circulating in the cranium.* Kali brom.
- Shock in the brain, momentary.* Ferrum.
- Stitches in one side, one temple, or occiput.* Puls.
- Stupefaction.* Æthusa. Arnica. Bell. Calc. c. Carbo an.
 Caustic. Conium. Hep. s. Hydro. ac. Hyosecy. Lurocerasus. Manganum. Mercur. Opi. Phos. Plumbac. Sabad. Secal. cor. Staphy.
sudden, when moving the head or walking. Carb. an.
- Stupid feeling in the forehead.* Arsen.
- Swimming sensation.* Bapt. Carbol. ac. Gels.
- Throbbing.* Chin. Ferr.
and all over the body. Iod.
and pressure in the middle of the brain, in the evening. Nitr. ac.
and shooting. Natr. m.
violent, in the temporal arteries. Glon.
- Weakness, sensation of.* Caust. Canth. Digital. Merc.
- Whirling in the brain.* Robinia.

EYES. (Compare: Peculiar Sensation or Sight.)

- Balancing sensation before the eyes, as if something was moving up and down, on moving the head ever so little.* Mosch.
- Blackness before the eyes.* Carb. an. Coff. Lact. vir. Merc. v. Sabad.

Blackness before the eyes, when stooping. Coff.

Blindness. Comp.: Vanishing of sight. Argt. nitr. Cupr. Gels.

Hyoscyam. Puls. Theridion (from pain in the eyes).

partial amaurotic, with floating muscæ and vibrating spectra.

Agaric. m.

Closing the eyes, half, with redness. Opi.

the eyes, spontaneous. Magn. sulph.

Dark circles around the eyes, with pallor of the face. Sac. lac.

Darkness before the eyes. See: Blackness. Dulc. Formica (relieved when sitting down).

Dazzling and sparkling before the eyes, as from snow. Oleander.

and sparkling before the eyes when lifting, raising one's self, or walking. Tart. emet.

Dimness. See: Mistiness.

Double vision. Gels. Hyoscyam. Oleander. (When looking down.)

Dulness of vision. Gels.

Film before the eyes, sensation of. Lac. Conium.

Flickering before the eyes, especially when stooping. Bell.

Fulness over the eyes. Podoph.

Half-sightedness. Titanium.

Jerking and pressure in the eyeballs. Selenium.

Mist, watery, before the eyes. Carbo an.

Mistiness and dimness of sight. Acon. Agaricus m. Apis (when stooping). Arnica. Arsen. Bell. Bufo. Cactus. gr. Calc. c. Camphor. Canth. (when walking in open air). Carbo an. Cham. (when lying down). Cicuta vir. Cimicifuga. Cupr. Cyclam. Evonymus. Gels. Gymnoclad. Hep. s. Hydro. ac. Hyoscyam. Ignatia. L. V. Deflorat. Merc. Mosch. Nitr. ac. Nux v. Paris. qua. Phytol. Puls. Raphan. Robin. Solanum. Tolia. Titanium. Verat. vir.

Pain in the eyes. Calc. ph. Theridion.

Obscuration of sight. Acon. Agaric. Arnica. Arsen. Bell. Evonymus. Hep. s. Hyoscyamus. Kali nitr. Merc. Nitr. ac. (has to sit down). Oleander. Paris. qua. Phos. (when stooping particularly). Puls. Robin. Sabad. Stram. Terebeth. Zinc.

Pressure behind the eyes. Rhus tox.
and jerking in the eyeballs. Selenium.
Pupils dilated and insensible. Opi. Verat. vir.
Red, half-closed eyes. Opi.
Sensibility, excessive. Calc. c. Bell. Graph.
Sparks before the eyes. See: Dazzling.
Staring. Mosch.
Stars, white, before the eyes. Alumina.
Swimming before the eyes. Carbol. ac.
Vanishing of sight. See: Blindness. Acon. Ars. Asa. f. Bell.
 Caustic. Chin. Cupr. Lach. (in paroxysms). Nux v.
 Oxal. ac. Sanguin. Sulph.
*of sight in the evening, followed by cold sweat on the forehead
 and limbs, with colic.* Asa. f.
*of sight, sudden and frequent, with sensation of a film before
 the eyes.* Caustic.
of sight when raising the head. Ars.
of sight and vertigo before vomiting. Sanguin.
Vibrations, luminous, before the eyes. Amm. c. Bell.
Zigzags, fierce, before the eyes. Spigel.

NOSE.

Bleeding. Acon. Antim. crud. Bry. Oxal. ac. Phos. Sulph.
following vertigo. Carbo an. Conium.
with vertigo. Cocculus.
with vertigo, and rush of blood to the head. Lach.
with vertigo; afterwards the nose feels sore to the touch. Sulph.
Red, hot nose and cheeks. Psorin.
Sensibility of smell, excessive. Agaric. m. Hep. s. Phos.
Sneezing. Phos.

EARS.

Blowing in the ears. Selenium.
Buzzing. Arg. nitr. Opi. Puls.
Deafness, or loss of hearing. Arnica. Bell. Colocynth. Hyos-
 cyam. L. V. Defforat. (slight). Merc. corr. Nux v.
Paleness of the ears, face, and lips, particularly in the morning. L.
 V. Defforat.
Ringling. China. Sanguin.

Roaring. Calc. c. Puls. (worse from talking and thinking).
Senega.

Sensibility of hearing, excessive. Ars. Verat. alb.

Stopped up, sensation as if. Kali c.

Sound and reverberation, every penetrating, penetrates through the whole body, particularly through the back, and increases the vertigo, which thus causes nausea. Theridion.

FACE.

Blue redness and bloatedness. Opi. Puls.

Dull, heavy expression, with appearance of bloatedness. Gnaphal.

Eruption and redness. Psorin.

Heat. Ledum. Merc. Nux v. Petrol. (when lying). Thuja.
flushes of. Coccul.

Paleness. Acon. Croc. tig. L. V. Deflorat. Ledum. Petrol.
Puls. (with heat in head). Tabacc. Verat. alb.

of the face, ears, or lips, principally in the morning. L. V.
Deflorat.

Pallor of the face, with dark circles around the eyes. Sac. lac.

Redness. Acon. Bell. Merc. Nux v. Opi. Phos. Psorin.
Stram.

Red, bloated, hot. Opi.

hot cheeks and nose. Psorin.

Sudden paleness, after having been red, particularly when raising up in bed. Acon.

Sunken. Verat. alb.

Swelling. Merc.

Yellowish. Chelidon. Natr. m. Nux v.

MOUTH.

Accumulation of water in the morning. Magn. c.

Foam at the mouth. Opi.

Formication of the soft palate. Tarantula.

Lips white. L. V. Deflorat. Valerian.

Odor bad. Nux v.

Nausea in the palate. Spigel.

Saliva from the mouth, excessive secretion of. Phos.

Spasms in the mouth, short. Mosch.

Speech impeded. Paris qua.

Speechlessness, though he sees and hears everything. Mosch.

Taste bad. Tarantula.

flat. Senega.

Tongue white. Antim. crud.

partial numbness of the left side. Agaric. m.

Yawning. Hipp. Natr. sulph. Petrol.

THROAT.

Sensation as if something had lodged in the throat. Phos.

as if a worm crawling up in chest and throat. Merc.

Swelling. Sarsaparilla.

APPETITE.

Desire for black coffee, and to lie down. Mosch.

Thirst. Hipp. L. V. Deflorat. Oxal. ac. Stram.

for large quantities of water, and after. Bry. L. V. Deflorat.

Want of appetite. Amm. c. Arsen. Ipec. Nux v. Petrol.

Phos. Verat. alb.

STOMACH.

Aching. Ptelea.

of the epigastrium and head at the same time. Manganum.

Bloating in epigastrium, with asthma. L. V. Deflorat.

Cramps. Collinsonia.

Distension of stomach when eating, or soon after. Lycopod.

Eruetation and belching. Antim. crud. Asa. f. Bufo. Callius.

Gymnoclad. Lycopod. Magn. c. Natr. m. Nux m.

Petrol. Sarsaparilla. Tarantula.

with taste as of rotten eggs, with nausea in the morning.

Magn. c.

sour, before and after vertigo. Sarsaparilla.

tasteless. Lycopod.

Faintness at the stomach. Dioscorea. Hydrast.

Fulness of the stomach when eating, or soon after. Collinsonia. Lycopod.

Gagging and efforts to vomit. Tarantula.

Loathing. Mosch.

Loathing in the morning, when awakening. Hyperic.

Nausea. Acon. Aletris f. Alumina. Amm. c. Antim. crud.
 Apis. Arnica. Argt. nitr. Arsen. Bell. Borax. Bry.
 Bufo. Calc. c. Calc. ph. Camphor. Carbo an. China.
 Coca. Coccul. Collinson. Croc. tig. Dioscorea. Ferr.
 Fluoric ac. Gymnoclad. Hep. s. Hydrast. Kali bich.
 Kali carb. Kalmia. L. V. Deflorat. Leptandria. Lo-
 belia. Magn. carb. Mephit. Merc. pr. Merc. v.
 Millefol. Mosch. Natr. m. Nitr. ac. Niccol. Nux m.
 Nux v. Paeonia. Petrol. Phos. Ptelea. Puls. San-
 guin. Sarsaparilla. Scilla. Silic. Solanum. Spigel.
 Spong. Sulph. Tabacc. Tarantula. Tellur. Therid.
 Thuja. Valerian. Verat. alb. Verat. vir.

*and disposition to vomit when in a recumbent position; less
 when sitting up.* Ars.

following vertigo. Phos. Puls.

followed by eructation. Nitr. ac.

followed by heat. China.

long continued. Sanguin.

in the afternoon, with heartburn, after vertigo. Phos.

in the morning, disappearing after breakfast. Alum.

*relieved by drinking water; vertigo and heaviness in the head
 remaining.* Paeonia.

relieved by turning to the side when lying. Merc.

when awaking. Niccol. L. V. Deflorat.

when closing the eyes. Theridion.

when lying in bed in the evening, with the head low. Petrol.

when lying, and moving ever so little. Magn. c.

when raising the head after stooping. Carb. an.

when riding. Borax.

when stooping. Millefol. Petrol. (and vertigo).

when walking. Ferrum.

in the morning, after rising. Magn. c.

Qualmishness at the pit of the stomach. Acon.

Retching. Asa. f.

up sour watery fluid. Kali bich.

Sinking at the pit of the stomach, sensation of. See: Faintness.

Vomiting. Acon. Aletr. f. Alum. Antim. crud. Arn. Ar-

sen. Bell. Borax. Bry. Bufo. Calc. c. Camphor.
 Chin. Coccul. Collinson. Digital. Dioscorea. Hep. s.
 Hydrast. Ipec. L. V. Deflorat. Leptandrin. Lobelia.
 Lycopod. Magn. c. Mosch. Natr. sulph. Nux v.
 Petrol. Phos. Puls. Sanguin. Sarsaparilla. Sepia.
 Silic. Solanum. Sulph. Tabacc. Tarantula. Tellur.
 Theridion. Verat. alb.

Vomiting after vertigo, and vanishing of sight. Sanguin.
disposition to, in a recumbent position; less when sitting.
 Arsen.

from motion, with faintness. Digital.

of bile at night. Sepia.

of food. Tarantula. Tellurium.

sour. Natr. sulph. (after vertigo). Sarsaparilla.

when riding. Borax.

with burning in the stomach. Arsen. Bryon. Nux v. Phos.

Weakness of the stomach. Ambra gr.

URINARY ORGANS.

Urgent desire to urinate, which is increased by micturition. Sac.
 lac.

Urine profuse, watery, and frequent during vertigo. L. V. Deflorat.

CHEST.

Asthma, with bloating in the hypogastrium. L. V. Deflor.

Boiling and bubbling. Puls.

Breathing slow. Opi.

Dyspnœa. Ferr.

slight. Digital.

when lying on the back at night. Puls.

Heat. Lachnanth.

Rattling breathing. Puls.

Sensation as of a worm crawling up in chest and throat. Merc.

Want of air. Carb. v.

HEART.

Bellows-sound. Ferr.

Boiling and bubbling in the region of the heart. Lachnanth.

Heat around the heart. Lachnanth.

Palpitation. Cactus gr. Ferr. Glon. Hydrast. L. V. Deflorat. Lachnanth. Nux m. Plat. Puls. Tart. emet.

slight. Digital.

with flushing of the face. L. V. Deflorat.

Pressure, with dyspnoea. L. V. Deflorat.

Suffocation about the heart. Merc. pr.

Tremor. Iod.

Weak action. Digital.

ABDOMEN.

Aching in epigastrium and head at the same time. Mangan.

Constriction. Kali nitr.

Colic. Colocynth. Hipp. m. Natr. m. Stram.

preceded or commencing with vertigo. Colocynth.

Distension. Calc. c. Carbo v. Cham. Coccul. Ignat. Lycopod. Magn. m. Natr. m. Nux v. Tart. emet. Verat. alb.

Fulness, feeling of. Lycopod.

Pinching uneasiness in bowels and chest as if a stool would come on. Spigel.

Plethora. Æscul. hipp. Aloe. Asa. f. Calc. c. Conium. Lach. Lycopod. Natr. m. Nux v. Phos. Puls. Sepia. Sulph.

Pressure. Petrol.

Rumbling. Bry. Calc. c. Calc. ph. Carbo v. Coccul. Collinson. Lach. Magn. m. Sepia. Sulph.

Tenderness, increased. Ptelea.

STOOL.

Bloody. Hipp. m.

Constipation. Alum. Bry. Calc. c. Calc. ph. Carbo v. Cobalt. Coccul. Collinson. Graph. Hep. s. Kali bich. L. V. Deflorat. Lach. Lycopod. Magn. m. Natr. m. Nux v. Opi. Plumb. Sepia. Silic. Sulph.

in old people. Calc. ph. Opi.

with hard stools. Cobalt. Opi.

utterly invincible to enemata or most powerful purgatives. L. V. Deflorat.

Diarrhoea. Ars. Lach. Stram. Verat. alb.

Grayish-white. Chelidon.

Hæmorrhoids. Aloe. Collinson. Hamm. Ignatia. Muriat. ac.

Nux v. Sulph.

Hæmorrhagia. Suppressed hæmorrhoidal. Acon. Bry. Bell.

Dulc. Ignat. Nux v. Phos.

Irritating discharges. Sulph.

Tenesmus. Bell. Camphor. Solanum.

BACK.

Contraction in the spinal column. Sarracenia.

Pain in the sacrum. Kali nitr.

severe, under the right scapula. Sac. lac.

NECK.

Aching. Calc. ph.

Cramps, spreading to the forehead. Sarracenia.

MALE SEXUAL ORGANS.

Incomplete erection of the penis. Tarantula.

FEMALE SEXUAL ORGANS.

Leucorrhœa before menses. Calc. ph.

Menstruation, suppressed, from cold, or mental agitation in general.

Acon.

suppressed, from cold. Acon. Bry. Dulc.

suppressed, from mental agitation. Ignat. Nux v. Opi.

suppressed, from putting hands into cold water. L. V. Deflorat.

suppressed, with bleeding from the nose. Bry.

suppressed, with congestion to the head. Bell. Opi.

suppressed, with hot head and pale face, or hot face and pale cheeks, and rheumatic pain in the extremities. Puls.

SKIN.

Insensibility. Robinia.

EXTREMITIES.

Aching. Calc. ph.

Cold hands. Merc.

- Coldness of the extremities.* Carb. v. Verat. alb.
intense, of tips of fingers when the hands are warm. L. V. Deflorat.
- Convulsions.* Opi.
- Corns, like, on the balls of the feet, which are very painful when walking.* Sac. lac.
- Debility and weakness.* Argt. nitr. Bry. Hyperic.
- Heaviness of the lower extremities.* Lact. vir.
- Pain, indefinite, rheumatic.* Kalmia. Puls.
in the right instep, when bending the foot. Sac. lac.
in the shoulder and right hip. Sac. lac.
in the wrist, joints, and fingers. Sac. lac.
- Trembling.* Argt. nitr. Hyperic. Natr. m.

SLEEP.

- Drowsiness.* Æthusa.
- Restlessness, and return of protracted suffering from loss of sleep.*
 L. V. Deflorat.
- Sleepiness, drowsiness.* Æthusa. Carbo an. Conium. Hippomanes. Hippomane mancinella. Kali nitr. L. V. Deflorat. Laurocerasus. Merc. Nitr. ac. Nux m. Phos. Plumb. Robinia. Sarracenia. Silic. Tart. emet. Triosteum.
all day long. L. V. Deflorat.
without the ability to sleep sound after midnight. Triosteum.
- Sleeplessness.* Ars. Calc. c. China. Coff. Glon. Ignat. L. V. Deflorat. Puls. Sepia. Silic.
the first part of the night. L. V. Deflorat.
- Sleep interrupted by frequent waking and violent nausea on moving ever so little.* Magn. c.
- Snoring.* Robinia.
- Stupor.* Opi. Puls. Sarracenia.

FEVER.

- Anæmic murmur of the arteries and veins.* Ferr.
- Arterial contractions insufficient, with frequent headache.* Hydro. ac.
- Chilliness.* Gels. Puls. Rhus tox.
- Chills.* Phos.
- Cold stage during intermittent fever.* Capsic.

Coldness. Magn. c. Merc. corr. Valerian.

Congestive intermittent fever. Nux v.

Fever, heat. Crocus sat. Gels. Nux v. Ledum (without thirst). Puls. (without thirst). Tellurium.

Heat, flashes of. Calc. c. Cham. Conium. Lach. Nitr. ac. Phos. Plat. Sanguin. Sepia.

internal. Puls.

preceded by nausea. China.

Perspiration. Lachnanth. Merc. corr. Oxal. ac. Sarsaparilla.

Theridion. Thuja. Verat. alb.

cold. Merc. corr. Theridion.

cold, on forehead. Verat. alb.

at night. Severe. Sarsaparilla.

Pulse collapsed. Puls.

increased. Acon. Bell. Tellurium. Verat. vir.

slow. Petrol.

slow, intermittent, or irregular. Digital.

Pulsation of veins. Asa. f.

Shuddering, feverish. Merc.

without thirst. Phos.

GENERALITIES.

Chlorosis. Coccul. Puls. Sabina.

Convulsions of the extremities. Opi.

Debility. See: Prostration; weakness. Aletris. f. Arsen. Bell.

(great). Cactus gr. Cantharid. China. Croton. tigl.

Dulc. Gels. Kali nitr. Nitr. ac. Oxal. ac. Sanguin.

Verat. vir. Zinc. (afternoon and evening).

Discharges, irritating. Sulph.

Epilepsy following vertigo. Atropin. Bell. Calc. c. (masturbation). Ignat. Nux v.

Fainting. Acon. Aletris f. Apis. Arsen. Bell. Bryon.

Canth. Cham. China. Crocus sat. Euphorb. Hep. s.

Iod. Kali nitr. Lach. Lachnanth. Lobelia. Magn. c.

Mosch. (sudden). Nux m. Nux v. Opi. Phos. Ptelea

(on turning the head). Sabad. Sulph. Verat. vir.

fits in the morning when standing, relieved from sitting, fol-

lowed by obscuration of sight, weakness, and drowsiness.
Kali nitr.

Fainting, sensation of. Alum. Cham. Phos. Stram.

tendency for. Digital. Sumbul. (from the slightest cause).

Falling down. See: Sensation of falling down, under the head of Peculiar Symptoms. Acon. Amm. c. Bell. Bovista. Cannabis Ind. Cannab. sat. China. Cicuta vir. Coca. Coccul. Conium. Digital. Elaps. Gels. Graph. Hydro. ac. Hyoscyam. Kali bich. Ledum. Phos. Phos. ac. Puls. Rhodod. Rhus tox. Sanguin. Sarsaparilla. Silic. Spigel. Spong. Stram. Sulph. Tarantula.

after whirling around, and not standing up again. Acon. Cicuta. Cannab. ind. Coccul. Nux v.

without consciousness. Coccul.

without losing consciousness. Tarantula.

on turning round quickly, dangers of. Kreasot.

from the chair, inclination of. Phos.

backward. Bell. Brom. Chin. Kali c. Ledum. Phos. ac. Rhus tox. Sarsap. Spigel. Spong. Stram.

backward, inclination for. Bry. Chin. Nux v. Phellandr. Rhus tox.

forward. Agaric. m. Alum. Arnica. Cicuta vir. Coca. Cupr. Elaps. Ferr. Graph. Liliium. Mangan. Magn. c. Natr. m. Phos. ac. Podoph. Rhus tox. Sanguin. Sarsap. Sulph. Sumbul.

forward, inclination for. Agaric. m. Cicuta vir. Cupr. Graph. Liliium. Mangan. Phellandr. Phos. ac. Podoph. Ruta. Spigel.

sideways. Amm. m. Benzoic. ac. Bovista. Cannab. s. Cicuta v. Conium. Dros. Mezer. Nux v. Podoph. Rhus tox. Ruta. Sulph.

sideways, inclination for. Ipec. Ledum. Phellandr. Silic. Sulph.

sideways, particularly to the side to which one moves in the room.
Phellandr.

to the right side, as soon as he sits up. Acon.

to the right side, at 7.30 P.M. L. V. Deflorat.

to the right side, inclination for. Natr. Sulph. Ruta.

- Falling to the left side.* Bell. Caustic. Sulph. Zinc.
to the left side, inclination for. Merc. per. Sulph.
to the left side, insensibly. Bell.
- Gait, unsteady.* See : Staggering.
- Glandular swellings.* Calc. c. Conium. Kali hydr.
- Motion lost.* Puls.
- Obesity.* Calc. c. Capsic. Graph.
- Prostration.* See : Debility. Camph. Carbo v. Lobelia.
with coldness of skin, sudden. Camph.
with cold extremities. Carb. v.
- Pulsation of veins.* Asa. f.
- Quick step when walking, involuntary, with vertigo.* Coca.
- Rachitis.* Calc. c. Calc. ph. Silic.
- Rigidity of the body, gradual.* Nux m.
- Sensitiveness to cold air.* Agaric. m. Calc. c.
- Staggering, tottering.* Acon. Agaric. Alum. Amm. c. Bell.
 Bufo. Calc. ph. Camph. Capsic. Carbol. ac. Cicuta
 v. Crocus sat. Ferr. Gels. Glon. Hyos. Kali nitr.
 Kreasot. Lach. Merc. Muriat. ac. Nux m. Nux v.
 Oleander. Opi. Paeonia. Plat. Puls. Rhus tox.
 Robinia. Sanguin. Sarracenia. Sepia. Spigel. Stram.
 Tarax. Thuja. Tilia.
- as if threatened with apoplexy.* Lach.
- to the left side, in the morning, after rising.* Lach.
- of old people, when rising from a seat.* Calc. ph.
- when walking in the dark, day or night.* Stram.
- Standing difficult.* Aloe.
*difficult, after raising the head when stooping, or rising from
 a seat ; worse in open air.* Hydro. ac.
difficult, so strong is the giddiness passing forward. Senecio.
difficult, with maniacal delirium. Acon. Bell. Cicuta. Hyos.
 Opi.
- Starts.* Aloe.
- Syphilis.* Aurum. Nitr. ac. Phytol.
- Tetanic fits.* Mosch.
- Throbbing all over the body.* Iod.
- Trembling.* Agaricus. Arsen. Bufo. Calc. c. Carbo v. Carbol.
 ac. Digital. Dulc. Ignat. Lobelia. Natr. m. Phos.

Tuberculosis, tendency to. Calc. c. Silic.

Walking, insecurity in. Aloe.

Weakness. See: Debility ; prostration. Dioscorea.

Weariness. Coca. Cupr. Dioscorea. Theridion.

Yawning. Hipp. Natr. sulph. Petrol.

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ARTICLE XXVII.—Morbus Addisonii.

BY S. L.

ROSENTHAL, in his classical work, *Clinic of Nervous Diseases*, puts Morbus Addisonii among the sympathetic abdominal disorders, and remarks that the peculiar complex of symptoms of this disease was first published in 1855, by Thomas Addison. The deposition of a dark, nearly bronze-colored pigment in the rete Malpighii, more rarely in internal organs, symptoms of irritability in the digestive apparatus (vomiting, pains in abdomen and loins), high-graded muscular debility, and a fatal anæmia represent the clinical picture of this disease.

Anatomically we find chronic inflammation of the suprarenal capsules, with cheesification (tuberculization) of the exudate. In cancer and in echinococcus of the suprarenal glands only exceptionally this bronze color was observed during life. Experimental researches have so far done very little to elucidate more fully the physiology of the suprarenal glands. According to Brown-Séguard animals perish quicker after extirpation of the suprarenal glands than after excision of the kidneys or after injuries of the peritoneum; still some animals survived the operation. The same writer remarks on the accumulation of pigment appearing in the blood after the extirpation of the suprarenal glands, that the injection of such blood is fatal to the animals where only one suprarenal gland was excised, but that where both were excised and the animals col-

lapsed, an infusion of blood of healthy rabbits kept them alive for several hours. Philippeaux, Harley, Schiff, and others kept animals alive for months after extirpation of both suprarenal glands, and never witnessed any pigmentary anomalies on the skin nor in internal organs.

But of more importance than these negative experiments is the anatomical proof of the great wealth of nerves in the marrow of the suprarenal glands, and the dependence of the latter from the sympathetic nervous system. The ganglion semilunare distributes many nerve branches with ganglia to the suprarenal glands, forming in their interior a considerable network. Virchow found in the marrow large ganglia cells with offshoots; the second form of cells described by Holm, is smaller and without offshoots. This remarkable richness of nerves in proportion to the smallness of the organ, as well as the considerable number of ganglia cells, which must be considered as origins of nerves, hint to a close relation between the suprarenal glands and the sympathetic abdominal plexuses; *vice versa*, the absence of any secretory activity and their internal structure oppose the supposition that they were glandular organs.

Whereas the experiments made on the abdominal sympathetic plexuses failed to show any changes, as found in Morbus Addisonii, anatomical researches discovered in the latter disease positive proofs of a degeneration of the sympatheticus. With the changes in the suprarenal glands (shrinking of the cells and nuclei with fat detritus) was also found great redness and swelling of the gangl. coeliacum and of the sympathetic nerves (Monro, Recklinghausen), fatty degeneration of the plexus solaris and of the semilunar ganglia (Quekett, Meinhardt), atrophy of the abdominal sympatheticus and of the plexus solaris (Schmitt, von Andel), hypertrophy of the plexus solaris, of the ganglia semilunaria and the branching off nerve-twigs (Virchow, Greenhow, Wolff, Burreli), adenoïd degeneration of the semilunar ganglia and their branches (Sanderson), and purulent softening of the solar plexus, spreading to it from the suprarenal glands (Fränkel). Against these nineteen observations (in twenty-nine autopsies) we find ten cases recorded where no changes were found in the sympatheticus, but in these ten cases the sympatheticus was not examined in all its parts.

The clinical manifestations of *Morbus Addisonii* hint to a severe affection of the whole nervous system. Besides the characteristic pigmentation on the skin of the trunk as well as on the visible mucous membranes (with the exception of the conjunctiva and the nails) we may mention, frequent headache, dizziness, fainting spells, neuralgic sensations in the extremities, in the shoulder, small of the back, epigastrium, dyspepsia and vomiting, diarrhœa, psychical depression, hallucinations, and high-graded muscular debility. The convulsions observed in some cases might have been caused by cerebral anæmia; the anæmia of the nerve-centres leads to death with the symptoms of caducity, collapse, and somnolence.

Whether, according to Risel, *Morbus Addisonii* may be deduced from a paralysis of the abdominal sympathetic plexuses, caused by an extension of inflammatory processes in the suprarenal glands, whereby the hyperæmia of the abdominal organs leads to general anæmia, or whether, according to Rossbach, the symptom-complex is based in an anatomical functional disturbance of the whole nervous system, standing in some relation to the suprarenal glands, are mere hypotheses, which fail to explain all the symptoms of this disease.

The diagnosis of Addison's disease is especially based on the discoloration of the skin, which may increase from a hardly visible light-brown to a deep bronze, and on the excessive sensation of debility, frequently combined with mental depression. Where the discoloration of the skin is only slight, or where the pigmentation fails to become developed on account of the rapid course of the disease (as in the case of Gull, with degeneration of both suprarenal capsules and of the right semilunar ganglion), the presence of adynamia and of severe diarrhœa may lead to a supposition of having to deal with typhus or acute miliary tuberculosis. But the absence of all rise of temperature, of the splenetic tumor, and of meteorismus, speak decidedly against typhus; the slight fever and the low frequency of breathing exclude miliary tuberculosis.

Its course is mostly chronic, from months to years. In two cases, mentioned by Virchow, the disease (fresh hæmorrhagic inflammation of the suprarenal capsules) run an acute course, and the patients died with typhoid symptoms. The prognosis is decidedly

unfavorable. Transient amelioration, even a temporary halt in the symptoms are more frequent than a cure. In nearly all cases death is hastened by acute or chronic pulmonary tuberculosis; therapy roborans, and calming.

Dr. Payr published in the *Allg. Hom. Zeitung*, 1870 (*N. A. J. of H.*, xviii, 499) a therapeutic study on Addison's disease, wherein he represents the similarity between this disease and tuberculosis pulmonum, and divides the disease into three different stages according to their three characteristic symptoms. He then differentiates Morbus Addisonii from pseudo bronze disease (in the latter the sclera of a dirty grayish-white, the nails full of parasites, especially on the toes, the epidermis fissured and desquamating), from melanæmia (peculiar cerebral symptoms, internal hæmorrhages, cachectic dropsy), from icterus gravior (yellow conjunctiva, gray fæces, bilious coloring matter in the urine).

Payr describes then Morbus Addisonii as a constitutional affection, which, though constantly localizing itself as a chronic inflammation in the suprarenal capsules, consists essentially in a specific anæmia, running its fatal course, characterized by abnormal formation of pigment in the cells of the rete Malpighii and in the epithelia of the buccal mucous membrane. This specific affection of the suprarenal capsules, through which probably after some time the function of the sympatheticus and of the large abdominal ganglia becomes altered, is only a peculiar disturbance of the nutrition of the whole organism, showing itself by anæmia, asthenia, and by perverse formation of pigment.

Addison himself considers the leading and characteristic features of this morbid state, general languor and debility, anæmia, remarkable feebleness of the heart's action, irritability of the stomach, and a peculiar change of color in the skin all over the body, in connection with a diseased condition of the suprarenal capsules. This discoloration pervades the whole surface of the body, but is commonly most strongly manifested on the face, neck, superior extremities, penis, and scrotum, and in the flexures of the axillæ and around the navel.

Dr. Samuel Wilks (*Guy's Hospital Reports*, 1859, p. 93), says that the symptoms of Addison's disease are characterized by those

of asthenia, and in chronic cases by discoloration of the skin. The disease is closely allied to tubercle, and we find in the suprarenal capsules first the deposition of a translucent, soft, homogeneous substance; subsequently the degeneration of this into a yellowish-white, opaque matter; and afterwards a softening or drying up into a chalky mass. The discoloration of the skin appears only in very chronic cases, and is always associated with the later stages of the suprarenal disease.

Dr. C. A. Gordon (*Medical Times and Gazette*, March, 1870), on the contrary, draws the following conclusions: 1. That Addison's disease may sometimes be hereditary. 2. That under certain conditions it may be connected with syphilitic cachexia. 3. It has no necessary connection with pulmonary tubercle. 4. Nor with albuminuria. 5. The presence of the characteristic disease of the suprarenal capsules is not necessarily attended by regional pain. 6. The symptoms of the disease are for the most part peculiar and characteristic. 7. Bronzing of the skin may appear where tubercular matter is not after death found in the suprarenal capsules. 8. The most frequent morbid appearance in the suprarenal capsules, when disease of these organs is discovered in cases of bronzing, is tubercular deposit. 9. Bronzing only occurs when the disease is far advanced.

In the *Compendium of Medical Science*, July, 1868, two cases of Addison's disease are recorded, and in both cases tubercular deposits were found scattered through the entire structure of the lungs.

Hughes in his *Therapeutics*, p. 352, considers it analogous to the scrofulous enlargement of the lymphatic glands. The asthenia and other symptoms of the malady probably depend upon the relation of the organs to the ganglionic nerves. It becomes a question, then, whether we should treat the disease symptomatically and as a whole, in which case Arsenicum would be indicated, or whether we should endeavor to attack the scrofulous diathesis, as by Calcareo and Iodine. Perhaps the Arsenite of Lime (*Calcareo arsenicosa*) would be useful in this disease.

Niemeyer (*Pathology* ii, 47), considers *Morbus Addisonii* a chronic inflammation of the suprarenal capsules with *cheesy detrition* of the inflammatory products and of the tissue elements them-

selves. More rarely than cheesy degeneration is *genuine tuberculosis* of the suprarenal capsules as a part manifestation of extensive tuberculosis. More frequently we meet *carcinoma* of the suprarenal capsules, either with carcinomata of other organs or as a primary and independent disease.

Eulenburg and Guttman (*Pathology of the Sympatheticus*, 155) consider the diseased state of the suprarenal capsules as a *secondary process*, dependent on an affection of the nervous system, especially of the great abdominal plexuses of the sympatheticus. Kœlliker considers the abundance of nerves in the suprarenal capsules as a plexus of ganglia from the sympatheticus, which necessarily must be destroyed during the degeneration of the suprarenal capsules. Harley derivates the general manifestations from a morbid state of the plexus solaris, or from an irritation of the ganglionic system caused by the neighboring affected suprarenal capsules. Britanne considers the constant vomiting produced by an irritation of the neighboring ganglionic plexuses. Wilks believes that all the symptoms of this disease are produced by an affection of the sympatheticus, and finds a pathological analogy in the collapse, sometimes with sudden death, observed in other diseases developing themselves in the vicinage of the semilunar ganglia, especially in affections of the pylorus and of Glisson's capsule, in aneurisma of the aorta cœliaca, and other tumors in that region, as well as in peritonitis, where the entire peripheric expansion of these nerves is affected. Feriol (*Hôp. St. Louis*) observed a case of extensive swelling of the lymphatic glands with bronze skin, where the suprarenal capsule was perfectly sound, but the abdominal glands, those around the pancreas, plexus cœliacus, and mesentery were thoroughly diseased, and he explains the bronzed skin as a consequence of pressure of the swollen glands on the ganglia, analogous to the pressure of enlarged suprarenal capsules on the ganglia, but against it might be mentioned that bronzed skin is frequently absent, though the enlarged suprarenal capsules press on the sympathetic ganglia. Mattei (*Press Med.*, 1863) considers Morbus Addisonii a neurosis of the sympatheticus. Von Andel and F. J. Schmidt regard atrophy of the sympatheticus in some cases as the cause of the disease, and Hedenius explains the alterations in the intestines (catarrhal swelling) and in the spinal cord (œdema and hyperæmia) from a paresis

of the vasomotor nerves, produced by an affection of the nerves supplying the suprarenal capsules and of the plexus solaris. Virchow also observed in pancreatic affections considerable discoloration of the skin, and mentions the peculiar discoloration of the skin during the development of sexual life in man as well as in animals, and which can only be explained through some changes of innervation.

A mystery still clings over cause and effect of this disease, and it is hard to decide whether the affection of the sympathetic ganglia is the primary cause of these manifestations, or whether even this neurosis is secondary to a lymphangitis nodosa (Rindfleisch "On Tubercle," *Histology*, p. 417), and we agree with this renowned author that disseminated tuberculosis is constantly the sign of a *constitutional affection*. We know not, whether in many cases a syphilitic poison, still lurking in life's innermost recesses, may throw itself with full force on this gland, and thus cause the disease in question. Certain it is that amyloid degeneration of the kidneys is pretty frequent in constitutionally syphilitic persons (Ziemssen's *Encyclopædia*, xii, 2, 68), for Rokitansky observed this amyloid degeneration even in congenital syphilis. Wagner and Meckel found chronic pulmonary phthisis in frequent company with amyloid renal degeneration, and it would be of practical interest to find out how many of such consumptive patients suffering from amyloid degeneration have had syphilis. In relation to the similarity, if not identity, of these tuberculous processes, it may be worth while to mention that Friedlaender, of Strasbourg, produced experimentally pulmonary phthisis by division of the nervi recurrentes (Virchow's *Archiv*, 1876), just as the division of the vasomotory nerves of the abdominal organs, running their course from the anterior cord in the splanchnicus to the ganglion cœliacum, produces a lasting hyperæmia in the abdominal organs from paralysis of the vasomotor nerves. Should, perhaps in all these constitutional ailments, the nervous system be the primary sufferer, and thus through this abnormal and faulty innervation an abnormal and faulty nutrition take place? for certainly we find too often the first demonstrable proofs of the diseased condition in the lymphatics. Leyden, in his great work on *Spinal Diseases*, truly remarks, that the study of nervous disor-

ders is yet in its infancy, and might we not fairly suggest that in making autopsies, the nervous system should not be so much neglected, as it is commonly the case.

Considering then Morbus Addisonii as a constitutional ailment, whether based on syphilis, on psora, or on a combination of both, and acknowledging with Hughes that so far homœopathic as well as allopathic treatment has failed to snatch the victim from an untimely grave, let us see whether there are not prodromal symptoms enough to prepare us for the coming evil, and, if possible, to stay its ravages.

Risel (*Archiv f. Klin. Med.*, 1870, p. 34) remarks that the hyperæmia in the abdominal organs produces an anæmia in all the other bloodvessels, hence the languor, the debility, the smallness and softness of the pulse, the reduced capacity of the cardiac cavities, the paleness of the skin and the anæmia of the nerve-centres, discloses itself by headache, vertigo, nausea and vomiting, apathy, manifold psychical symptoms, especially of a depressive nature, or by hallucinations, convulsions, neuralgia, hyperæsthesiæ, etc., or we may call with Rossback (*Virchow's Archiv*, 1870) the disease a functional disturbance of the whole nervous system, standing, *but not necessarily*, in some connection with the suprarenal capsules, characterized by a disturbed psyche (decreasing intelligence and memory, great irritability), by neuropathic symptoms (motory and sensory palsies, sleepiness and sleeplessness, vertigo), by high-graded anæmia, *preceding the affection of the suprarenal capsules*, excessive sensation of debility, and frequently by a dark pigmentation of the skin.*

We have seen that Hughes (l. c.) mentions Arsenicum, Calcarea arsenicosa, Iodine and Kreasot; Payr (l. c.), Belladonna, Natrum muriat., Ol. jecoris aselli, Iodine, China, Ferrum, Argentum nitricum, Cuprum met., Lycopod., Carb. veg., Arsenicum.

* One of the most remarkable cases of pigmentation from mental excitation is given by Rostan (*Brit. Med. and Foreign Review*, April, 1861). During the French revolution a woman was condemned to be hung. The announcement produced such a fright in her that she turned black in a few days. The execution did not take place, but the discoloration of her skin remained all through her life, and she lived yet for thirty years. In Schmidt's *Jahrbücher*, vols. 115 and 126, there is a good summary of pigmentary anomalies from nervous causes, in relation to the sexual organs.

Now let us begin *ab ovo*, ponder over our *Materia Medica*, and study; perhaps we may be able to find something like a simile to this dire and fatal affection.

In the proving of *Psorinum* (*N. A. J. of H.*, xxiv, 166) we read: Vertigo, everything turns round with him; loss of memory; severe headache with malaise; fulness of the head during mental labor; pale face; yellowish sickly color of the face; the eyes feel tired in the evening as after much reading; the sight suddenly vanishes; all objects in the room appear as if they were trembling; surring in the ears; swelling of the submaxillary and lingual glands; the glands of the neck on both sides are swollen and tender to the touch; loss of appetite, nausea and vomiting; cutting pains in the intestines, relieved by the passage of stinking flatus; sensation of a tumor horizontally across the abdomen, below the short ribs; cutting pain in the lumbar region so that she could not walk alone; stool dark brown, very fluid, and foul-smelling; relaxation of the sexual parts; shortness of breath, ameliorated by lying down; cough, with expectoration of green mucus, nearly like pus; ulcerative pain in the chest, under the sternum; excessive backache; the back feels bruised, he cannot straighten out; pain and weakness in the lumbar region; malaise, he feels tired out and feels best when lying down; restless, unrefreshing sleep; always sleepy and sleep unusually heavy; melancholy and despairing mood.

Frost (*Amer. Hom. Review*, vi, 145) remarks on psora and psorinum: The ganglionic system is the fundamental form of life, common alike to the lowest and to the highest species, and this vital principle, peculiar to the ganglionic system, is originally constructive, and constantly sustaining all the rest. Hence all what is meant by *constitution* must belong to the ganglionic system, and in those obscure recesses of nature, the minute individual and collective ganglia of the sympathetic system, lie concealed the subtle but persistent germs of health and longevity on the one hand, and of disease and premature decay on the other. Burt considers psorinum affecting especially the great vegetative nervous system, and through this the lymphatics and skin. Bell considers "debility independent of any organic disease" the great field for psori-

num, hence its indication would be during the first stages of Morbus Addisonii, before pigmentation hints to a fatal issue.

Dr. M. Baruch writes that "*Theridion* does not seem to affect the external scrofulous symptoms, but that it rather goes to the root of the evil, and effectually destroys the cause of the disease;" hence it must affect powerfully the ganglionic system. We hardly know a remedy which pictures in such vivid colors the great lassitude and debility, as if from great losses of blood, and we know that anæmia is one of the characteristic and early symptoms of Addison's disease. Thus we read (Hering's *Mat. Med.*, i, 676): Despair, want of self-confidence; great aversion to work; vertigo and nausea, increasing to vomiting; vertigo with blindness; vertigo renewed by the least motion; indescribable headache; headache behind the eyes; headache in the beginning of every motion; headache of the worst kind, with nausea and vomiting, like *sea-sickness*; inclination to drink wine and brandy; constant desire for food and drink, he knows not what; nausea always increased by closing the eyes; constant sleepiness; internal coldness ameliorated by heat, etc., etc. If the statement is correct that sea-sickness is caused by an insufficient supply of blood to the brain, we certainly find in *Theridion*, this great anti-scrofulosum or anti-tuberculosum, a close simile to Morbus Addisonii, especially as we find in the remedy quantitative (unequal distribution of the blood) as well as qualitative anæmia, for so much is at least certain that in Morbus Addisonii the red blood-corpuscles are intensively destroyed; hence hæmatin set free, and this with other pigmentary matter deposited in the rete Malpighii; whether this be taurin, leucin, benzoic acid or taurochol and hippuric acid, is still undecided. In what the qualitative anæmia, produced by *Theridion*, consists, is also still unknown, but so much we have found out, that the animal poisons decompose the blood, and render it unfit to perform its function.

Natrum Muriaticum.—Many physicians of the old school recommend salt in tuberculosis and scrofulosis, and experience has proved the beneficial influence of saline waters, of saline baths, and of sea-air in phthisis pulmonalis. Walton (*Mineral Springs of America*, 1873) recommends these waters as promoting the action of the intestines, augmenting the flow of urine, increasing the

secretion of the mucous membranes, and promoting epithelial desquamation. They also stimulate the glandular and lymphatic systems, and increase the flow of bile. Brine-baths act as a powerful stimulus to the cutaneous nerves, increasing the peripheral circulation, and perhaps, by reflex action, influence remote organs, and even the nerve-centres. (St. Catharine's Wells, Canada, Saratoga Springs, Ballston Spa, etc.; in Europe, Homburg, Kissingen, Pymont, Wiesbaden, etc.)

Payr (l. c., 509) prefers salt where nutrition is already at a low ebb. Among its symptoms we find, tension and heat in the renal region, yellow pale color of the face, brown spots on the back of the hands, excessive lassitude and relaxation of mind and body, with trembling of the lower extremities, dimness of sight, nausea, vomituration, vomiting, pressing and screwing pains in the stomach, loss of appetite with aversion to animal food, constipation, pains in the hypochondria and abdomen, aversion to motion and labor, frequent yawning and stretching with sleepiness, still he cannot sleep; coldness of the extremities; prevailing oppressed feeling with intermediate irritability and crossness; vertigo when rising up or when trying to walk with tendency to faint; feelings as after an epileptic fit. Knowing also the beneficial effects of inhalations and baths containing chloride of sodium, in the different localizations of the albuminous crisis, and the fact that such diseases are nearly unknown among the laborers in salt-works, we can indorse its beneficial effect in *Morbus Addisonii*.

Bayes (*Applied Homœopathy*, 123) recommends it in hypochondriacism of a passive kind; a sort of despairing, hopeless feeling about the future, accompanied by dryness of the mouth, irritable mucous membranes, often with sore tongue and slight ulcerations, and chronic constipation with hard stools.

Farrington (*Comparative Mat. Med.*, 27) gives us: Vertigo, when rising, goes off by lying down; faintness from motion, from straining eyes or close study; headache, worse in cold air and while walking; amaurotic obscuration from debilitating nervous losses; pains produce paralytic symptoms; muscles of swallowing weak, speech impaired; nausea with empty eructations; cramp pains; burning alternating with coldness; pressure with nausea and sudden sinking of strength; sleepy after eating; emaciation with

hunger ; constipation alternating with diarrhœa on account of the diseased glandular system ; tension and heat in region of kidneys, even while sitting ; a paralytic state of the kidneys ; impotence ; chlorotic symptoms with sadness ; cough with cutting tearing in chest, when sitting erect, with yellow, bloodstreaked, flat or sourish expectoration ; trembling pulse, fluttering heart ; tremors all through the body ; paralytic weakness in the lumbar region.

Natrum Sulphuricum.—The question may well be asked whether Addison's disease is not an emanation of a hydrogenoid constitution of the body, in other words of the leucæmia of Virchow, for we know now that there are three different forms of this dyscrasia, and that many complex cases of chronic diseases might be traced back to such a poisoning of the blood and nerves. Hering (*Mat. Med.*, i, 259) relates that long before Grauvogl wrote his *Lehrbuch der Homœopathy*, Glauber salt had been used to prevent the development of some forms of consumption, in abdominal disorders and chronic diarrhœa, and that it predominates in a great many warm springs. Among its characteristic symptoms figure, depressed mood, despair of getting well, inexpressible agony ; vertigo when getting up with dulness of head ; dulness of the head with feebleness ; feeling as though the brain were loose, and when stooping as though it fell towards the left temple ; nausea and soft stools ; vomiting with colic ; after vomiting extreme feebleness and a boring headache ; empty feeling in the stomach with pinching pain from flatus ; feeling in stomach as with voracious hunger, with boring pain ; trembling in the pit of stomach, and pressure with want of breath, feels faint while sitting for five minutes ; grumbling and fermenting in the abdomen after meals ; short breath when walking, gradually relieved by rest ; frequent cough with some expectoration ; if he coughs while standing, he feels a sharp stitch in the left chest with dyspnœa ; cough with purulent expectoration ; stretching and yawning with internal coldness ; sleepiness.

Argentum Nitricum.—A far-progressed case of this disease, in a constitution originally weak and prostrated by the exposures of military campaign life, was treated at Ward's Island Hospital, and the Nitrate of Silver steadily given for months, at any rate stayed the ravages of the disease till he finally succumbed to the

oppressive July heat. Payr (l. c., 511) seems not to be favorably inclined to this drug, for he says: "Although *Argentum nitricum* gives us many symptoms which we also find in the complex of Addison's disease, still in the Nitrate of Silver, the discoloration reaches only the epithelial layer, the albuginea and the canula of the nails preserve their original color, and the gastric symptoms are mere emanations of a corrosive inflammatory process, whereas in *Morbus Addisonii* the rete Malpighii is the carrier of the pigment, and the Addisonian bronzed skin is the pathological pendant to the physiological skin of the negro, and in most cases not a vestige of pathologico-anatomical change can be found in the stomach; we find neither a chronic inflammatory affection of the suprarenal glands, and instead of anæmia, the Nitrate of Silver is more apt to produce a hydræmia."

The question in relation to a simile to Addison's disease differs nowadays from the time when Payr wrote, and even then the affection of the suprarenal capsules alone did not constitute the disease, and functionally at least the stomach is always affected. Wood (*Mat. Med.*, 45) believes that it acts directly on the nervous system, and when it is exhibited for a long-continuous period, the skin often acquires a peculiar bluish slate color which may become very dark, and in decided cases the *conjunctiva* and even the mucous membrane of the mouth is involved. It causes vomiting and purging and violent disturbance of the motor functions, as shown by paralysis and convulsion, excited by the least peripheral irritation, but due to an *affection of the central nervous system*. Microscopic examination also revealed that at present there is no proof whatever that the symptoms of acute argyria are due to alterations in the blood. Bogolowsky found in chronic cases of poisoning that it produces loss of appetite, wasting, slight lowering of bodily temperature, diarrhœa, diminution of the quantity of urine passed with increase of its specific gravity, and often with the presence of albumen and transitory paralysis. Comparative examination of the blood showed that the hæmoglobin was reduced more than one-third, and that the blood was also rendered very aplastic.

In one case at Ward's Island, *Argenti nitras* kept the bowels in check, and perhaps also aided in keeping up strength; hence

this drug cannot be considered a remedy for Addison's disease, except in the last stages, where it will remove threatening symptoms. Burt (*Characteristic Mat. Med.*, 80), on the contrary, believes that silver acts through the great sympathetic system, and although the large white tubular fibres are especially characteristic of cerebro-spinal nerves and the pale or gelatinous fibres of a sympathetic nerve, still there is no certainty to be obtained in a doubtful case, whether the nerve-fibre is derived from one or the other from mere examination of its structure.

We studied *Natrum muriaticum* and *sulphuricum* (hydrogenoid constitution of the body), in relation to this affection; now *Grauvogel* considers *Argentum nitricum* the chief remedy for the carbon-nitrogenous constitution, in which the oxidation of the blood is obstructed, giving rise to accumulation of carbon and nitrogen in excess. The skin of the negro, as well as of the patient suffering from Addison's disease, contains a great amount of pigment cells in the *rete Malpighii*, and it is well known that the pigmentary matter is a very insoluble compound, the carbon largely predominating. In both these constitutions, the hydrogenoid as well as the carbon-nitrogenous, vitality is at a low ebb, and excessive debility prevailing. Strict individualization is therefore necessary in deciding the remedy, but that Nitrate of Silver is a close simile to this disease, can be easily shown by comparing the symptoms of *Morbus Addisonii* with the pathogenesis of *Argenti nitras*.

The symptoms of the disease are pigmentation of the skin, frequent headache, vertigo, fainting, neuralgic sensations in the extremities, shoulder, small of the back, epigastrium; dyspepsia with vomiting, diarrhoea, psychical depression, hallucinations and high-graded muscular debility, finally convulsions from cerebral anæmia, somnolency, collapse, death.

Allen (*Encyclopædia*, i, 453) gives us: Apathy with great debility and tremulous weakness; stupefaction with suffering look, coma; 18. Confusion of the head; vertigo and general debility of the limbs and trembling; painful fulness and heaviness of the head with inability to recollect; 202. Sunken, pale, bluish countenance, leaden-colored countenance with nausea; appearance of old age; 330. Faintish nausea with palpitations; nausea, heavi-

ness and pressure in the stomach; vomiting, which stains the bedclothes black; cardialgia; diarrhœa; 583. Heart's action irregular, with an unpleasant sensation in the chest; violent palpitations of the heart with faintish nausea; 608. Paralytic heaviness in the lumbar region; weariness of the small of the back; pains in the kidneys; 626. Lassitude and heaviness in all the extremities; rheumatic tearing pains in extremities; cramplike drawing from the hips down to the knees; 704. Convulsions and twitchings; 746. Skin brown, tense, and hard.

It may be also worth while to consider that the tuberculosis (pseudo), suitable to *Argentum nitricum*, differs essentially from that of *Natrum mur.* and sulph.

Arsenicum may show some symptomatic indications during the last stage of the disease, but it does not appear to cover the totality of the symptoms. The torpid adynamia of *Morbus Addisonii* differs too much from the morbid restlessness of the *Arsenicum* patient. The prostration of the vital power is the great characteristic of *Morbus Addisonii*, but we find no organic degeneration leading to hydræmia, where the watery elements of the blood exude through the relaxed tissues. The action of *Arsenicum* differs also essentially from that of the morbid cause of *Morbus Addisonii*, for whereas the former annihilates quickly the life of the ganglionic system (Burt, l. c., 90), we find Addison's disease a gradual undermining. The similarity of some symptoms only apparent, but does not conform to the totality of the symptoms. In arsenical poisoning there is a widespread granular or fatty degeneration of the tissues (*Phosphorus*, *Ammonia*, *Antimonium*), but in none of the autopsies mentioned by Eulenburg (*Sympatheticus*, 170), were the suprarenal capsules thus degenerated, but rather tubercular infiltration and abscesses were found, and the fatty degeneration and atrophy were limited to the sympathetic nervous system. And if Payr objects to *Argentum nitricum* because it affects only the epidermis, we may affirm the same of *Arsenicum*, for most dermatologists agree that Arsenic is most beneficial in those skin diseases affecting the more superficial parts of the skin, and that it has no effect upon infiltrations of the corium.

We also doubt whether *Calcareo arsenicosa* will be more frequently indicated than the Arsenious acid. The leucophlegmatic

character of the good-natured Calcareo certainly speaks not in favor of it, except in the prodromal stage, where we hardly think of the fatal last stage, for certainly as a corrector of mal-assimilation, as long as no tissue-changes took place, the salts of lime rank as remedies of the first order. Still Buchner (*Morbus Brightii*, 70) considers the life-prolonging Calcareo and its preparations indicated even where organic changes have resulted, and he found the Arsenite of Lime indicated in girls with ulcers of the stomach, in hypertrophy of the pancreas (Eulenburg found in *Morbus Addisonii* the suprarenal capsules hypertrophied), in embolism during pregnancy, but these very indications are rather a proof of a far different morbid state, even *ab initio*.

Cinchona has more quantitative than qualitative anæmia, and *Ferrum* will never tone up the asthenia from *Morbus Addisonii*. Do the destructive animal poisons promise a better success, or should we study up the nosodes and apply them? Though the disease is rare, it would be a glorious testimonial to homœopathy if a well-authenticated case could be shown up as cured by homœopathic remedies. But after all an ounce of prevention is still better; let us look well to the prodromal symptoms, let us rather prevent what we cannot cure when once fully established.

How careless autopsies are made, we see again in a case reported by Dr. J. Gibbs Blake, in the *British Journal of Homœopathy*, January, 1877, where only the suprarenal capsules and no other organs were examined. The nervous system again entirely neglected, although it is well known nowadays that the degeneration of the adrenals is only a secondary affection to the primary nervous lesion.

ARTICLE XXVIII.—*Thuja occidentalis*.

BY DR. H. GOULLON, JR.

(From the Allgemeine Homöopathische Zeitung, Leipzig.)

(Continued from page 349.)

III.—THUJA IN GONORRHŒA AND GLEET.

WITH Jahr, we acknowledge a local gonorrhœa by another one accompanied by general manifestations and secondary affections,

described by Hahnemann as sycosis or condylomatous gonorrhœa. The latter even may be inoculated and produces chancre, and thus it differs greatly from the simple venereal chancre, limited to the place of infection. A nearly analogous process is observed in the chancrous ulcer. Whereas some, in spite of the characteristic aspect, heal promptly with a few doses of mercury in a short time and without any sequelæ; others (indurated) are protracted under treatment.* It is certainly of importance who becomes infected, a man in perfect health or an individual suffering from certain morbid dispositions (hydrogenoid constitution), and there must be a difference between the various syphilitic poisons here, between the pus of the one or the other gonorrhœa.

There are no indications for Thuja in primary chancre, nor usually in the first inflammatory stage of gonorrhœa; metastasis and sequelæ rather lead our attention to Thuja. Thus Thuja may be given in the very painful *prostatitis* standing in connection with gonorrhœa, especially where Puls. failed to give relief. (Merc. viv., Acid. nitr., and Tussilago may also be indicated.)

In metastatic gonorrhœal articular rheumatism (after suppression of the discharge), Puls. and Merc. loom up as remedies of great importance; but in cases running a tedious course Thuja acts well. (Thuja was even prescribed before Hahnemann in rheumatism.)

Kunkel (*Int. Hom. Presse*, iii, 585) thus describes the sycotic gonorrhœa, which he also calls "virulent" (in perfect consonance with our malignant or chancrous gonorrhœa), in contradistinction to the indifferent one, or that resting on a psoric basis. Symptoms of sycotic gonorrhœa are, general malaise, sensation of parietic debility in the lower extremities, loss of appetite, foul taste, sleeplessness, restlessness at night, psychical depression, *frequently scanty discharge*, chordee often. One dose Thuja³⁰ often removes

* We even opine that the so-called benign gonorrhœa and chancre heal of themselves, and differ with Jahr, who prescribes for incipient gonorrhœa, *i. e.*, when the patient calls immediately for treatment, before a discharge has set in, and where he only complains of itching at the orificium urethræ, with slight redness and hardly perceptible oozing, two pellets Sepia³⁰, morning and evening. Strict diet is enforced, and in a week patient is cured. *Post hoc propter hoc?*

the whole complex of symptoms in a few days, mostly with a more copious discharge. The proving of such an eminent physician, as Dr. Dudgeon is, speaks also for the indication of Thuja in sycotic gonorrhœa.

Involuntary Proving of Thuja, by Dr. Dudgeon (Brit. J. of H., xxix, 185).—On the 10th of July last (1870), when taking a walk, I happened to pass a Thuja tree laden with green cones. I plucked one, chewed it a little, and thought no more about it. That same evening I observed a very disagreeable scalding on making water, which continued all next day, and I was horrified to observe, on undressing, that my shirt was spotted all over in a manner extremely repugnant to one's notions of respectability. I found a considerable gleet discharge from the urethra, which was evidently swollen and inflamed, as the stream of urine was small and split, and the burning had increased. I had quite forgotten the circumstance of having chewed the Thuja once the previous day. The following day the discharge had become yellow, while the other symptoms remained as before. I now remembered the cone chewing of the 10th, and regarded the malady with more composure. I resolved to take no medicine to interfere with its course. The discharge still continued, though in a diminishing degree, until the 15th, but the scalding and interrupted stream of urine were by that time gone, and I was again quite well on the 16th. The symptoms while they lasted were precisely those of an ordinary attack of gonorrhœa, but their medicinal origin was evidenced by the short duration of the attack. In the provings of Thuja by Hahnemann and Meyerhofer there are certainly indications of a decided action in the urethra, but not such a complete picture of a gonorrhœa as that presented in my case. The medicinal action of Thuja is well known in some of the secondary effects of gonorrhœa, but it has not been much employed in the earlier stages of blennorrhœa itself, for which this involuntary proving would show it to be eminently adapted. Two colleagues, who, at my suggestion, chewed a cone of Thuja, were unaffected by it.

Thuja is equally reliable in gonorrhœa of the female sex, especially as the tree of life suits so well women and children. We will find here the diagnosis between sycotic and other gonorrhœas

rather more difficult, particularly when the inflammatory period is passed, and we have to deal with that stage known in the male as painful gleet. The contagious discharge then is macroscopically as well as microscopically like that of an innocent leucorrhœa, but with this characteristic difference, that the spots in the linen, made by the specific secretion, show a kind of granule, around which we see a grayish, sharply limited margin, and not a uniform not limited spot as found in an indifferent fluor albus. Yellow parts in the secreted mucus are also suspicious, but do not allow a positive conclusion, nor can we affirm whether the gonorrhœal or chancre poison caused the infection. Inoculation again will give us a prompt decision, although, even where no result followed, we cannot be sure whether the leucorrhœa might not have been caused by a contagious but indifferent gonorrhœa.

When then is Thuja indicated in leucorrhœa? In acute simple inflammatory fluor albus Jahr prefers Cannabis, and in female gleet with or without (non-syphilitic) erosions Sepia, whether the leucorrhœa be seated in the pudenda, vagina, or uterus. Thuja (with Merc. and Nitr. acid) finds only a secondary place, but where chancre causes the leucorrhœa, these three remedies will act well. Thuja and Nitric acid deserve always to be remembered in secondary gonorrhœa and gleet, or where condylomata are present, a thin, green discharge, especially in women, always hints to Thuja.

IV. THUJA IN SECONDARY FORMS OF SYPHILIS.

Chancre, gonorrhœa, condylomata, and the mucous tubercles, so important for Thuja, belong to the first stage of syphilis, and are called the protopathic symptoms. There are other symptoms which by infection or inoculation cannot transfer their own form. For, where such is still possible, even where we have to deal with deuteropathic products, we should speak only of consecutive or transitory manifestations. Buboës, some condylomata, and sycoitic excrescences are therefore strictly excluded from secondary forms.

An important species of the latter are the syphilitic skin diseases or syphilides, which show the beginning of the second period of syphilis. They are for us just now of little interest, as Thuja is no remedy for them. Neither the roseola syphilitica, nor

the eczema syphil., nor the herpes syphiliticus are curable with Thuja. The varicella syph. and pemphigus syph. are reported to have yielded to this remedy. But the syphilitic pustules (acne, impetigo, ecthyma s.) and papules (lichen s., the syphilitic itch), the tuberculous syphilides, the squamous syphilides, considered by some as final forms of the syphilides (Cazenave distinguishes three forms of this syphilitic eruption : lepra nigricans, psoriasis syph., and psoriasis cornuta), finally the syphilitic affections of the nails and hairs yield far better to Phosphorus, Nitric acid, Sarsaparilla, and Lycopodium than to Thuja. The mercurials are also not reliable, though Cl. Müller recommends Merc. bijod.

Of far more interest to us are the secondary ulcers of the external skin and the syphilitic fissures seated at the anus and at the entrance of the rectum, also the secondary affections of the mucous membranes, seated especially at the mouth and throat; that seated on the tonsils looks exactly like a Hunterian chancre, but the phagedænic chancre and the ringlike herpetic ulcer also belong to this class.

We must consider furthermore the secondary manifestations in the larynx and nose, in the ears and eyes. We find in the ear cauliflower excrescences and other fig-warts, also mucous plaques, certainly an inviting indication for Thuja. The same may be said of conjunctivitis syphilitica with its photophobia and great painfulness, and perhaps still more of the well-known syphilitic iritis, in whose company we always meet the at first brown-red and at a later stage yellowish-looking condylomata or tubercles. Great sensitiveness of the eye to cold and damp weather, great photophobia, and copious lachrymation insure a still greater indication for Thuja.

It has been practically proven that Thuja acts specifically on the ulcerous erosions appearing in the throat, but that it is surpassed by Nitric acid, Cinnabar, and Kali jod. in the treatment of deeply eating chancres in the throat. Wolf (*Archiv*, xi, 1) found Thuja sometimes of benefit in syphilitic ulcers of the throat after mercurial abuse, especially where condylomata are simultaneously present.

CHAPTER VI.

THUJA COMPARED WITH ANALOGOUS ACTING REMEDIES.

1. *Thuja and Acidum Nitri.*

WE consider both as constitutional remedies, especially for sycosis or lues gonorrhoea, but a *feeling of soreness* hints to Nitric acid. Anatomically we have to deal here with excoriations, flat ulcers, superficial suppurations, etc. Thuja is more suitable for specific syctic affections, principally for those condylomata exuding a glutinous foul-smelling matter, and for the mucous tubercles. An equally important specific correlate is the gleet, with simultaneous more or less extended ulcerative processes in the urethral mucous membrane, or at least with similar superficial erosions.

Thuja and Acidum nitri. are also constitutional remedies in so far as they are indicated in *scrofulous* affections, inasmuch as many consider scrofulosis an offspring of syphilis, and for certain forms this may be the case. Thus the hypertrophic tonsils are often considered as a scrofulous affection modified by syphilis. It is really interesting that Thuja acts well in such a tonsillitis, and Acid. nitri. is still more frequently used in such affections (also in difficulty of hearing from great swelling of the tonsils), and Petroleum follows well after either remedy; in fact how often are these two remedies indicated in glandular affections: Acidum nitri. in inflammation and swelling of the testicles, swollen and suppurating inguinal glands; and on the other side such affections of the testicles are frequently the forerunners of sycosis or symptoms of a lues gonorrhoea which had finished its course, and where Thuja would be indicated, as we see it in the 22d case of Grauvogl. The mucous membrane of the organs of the senses is a favorite place for the affections curable by both remedies, and many authorities consider lues gonorrhoea as a blennorrhoeic form of syphilis, which loves to attack the mucous membranes. But even where a connection with a syphilitic contagium cannot be shown, such diseased states of the mucous membranes are curable by Thuja and Acidum nitri. Let me remind you here on the vaginal

blennorrhœa, the common fluor albus, but also on the malignant ophthalmia neonatorum. Thuja frequently cures such an ophthalmia with severe photophobia and copious seropurulent discharge, also leucorrhœa. The same can be said of Acidum nitri., which has acquired a reputation in ophthalmia neonatorum, but also in leucorrhœa with those anatomical lesions already described.

The tendency to hæmorrhages is peculiar to many diseases curable by Thuja and Acid. nitri. Certain easily-bleeding fungi, teleangiectasiæ, intensive congestions, even scurvy belong to either remedy, for, according to Virchow, this morbidly increased tendency to bloody discharges is characteristic of sycosis or of the leucæmic dyscrasia.

Both remedies find also their indication in chlorosis. Although Virchow warns us not to identify chlorosis with leucæmia, still the *usus in morbo* has given its clinical approval. Thuja has frequently cured even a high-graded anæmia, and the same can be said of Acidum nitri. There are certain stages of chlorosis, where we are in doubt whether iron is in its place, where great lassitude, paleness, pressure in the pit of the stomach, and digestive troubles exist, where our patient is yet of tender years, and where we always found Acidum nitri. acting well.

An important parallel between Thuja and Acidum nitri. is also found in their relation to sleep. In Thuja we find in nearly regular repetitions the symptom of sleeplessness, of non-refreshing sleep, of constant tossing about, of morose awaking, etc., and it cannot be mere accident that we find this function so closely connected with the psychical life, and with the labors of the entire nervous system again in the lesions and disturbances where Acidum nitri. finds its place. Restless sleep with bad dreams, sleep disturbed by pain, exacerbations of such pains in the evening and at night (compare the headaches cured by Thuja), are indications for Acid. nitri. Even nightmare indicates it. No wonder that we also find in both remedies deep melancholy, caprice, stubbornness (in children), and in grown persons præcordial anguish, even a hypochondriacal, hysterical mood, with suicidal ideas.

Nevertheless, we must differentiate between these two remedies. Though we consider Acid. nitri. a constitutional remedy, the dis-

eases suitable for it do not show as distinctly its genetic connection with a preceding syphilitic noxa, as it is the case with Thuja. We already recognized sycosis as a *modified syphilis*, and still more difficult to know are the forms suitable for Acid. nitri.; yet frequently we miss every hint to such a primary disease. Again we miss in the exudations of the diseases suitable for Acid. nitri. every tendency to rapid organization, tumors, appendices, excrescences. Adhesions are far more often observed in Thuja affections, whereas inflammations, suitable for Acid. nitri., end in flat ulcerations and superficial deepening; condylomata, warts, neoplasmata of considerable size, prominent anal productions, etc., indicate *cæteris paribus* Thuja. At the same time we confess that to finish our cure, both remedies may be indicated, as *e. g.*, a tendency to repeated (active) hæmorrhages may justify us in leaving off Thuja, and in using Nitri. acidum, as the latter shows it in a greater degree in its pathogenetic and therapeutic qualities.

Mercurial abuse hints to Acidum nitri., whereas a hydrogenoid constitution points to Thuja. The easily-bleeding (mercurial) ulcers are just as characteristic for the mercurial syphilis as for Acidum nitri. The same may be said of the looseness of the teeth and the bleeding of the gums, of the salivation, of the fetor from the nose (mercurio-syphilitic ozæna), and from a certain difficulty of hearing, of bone-pains, periostitis, and caries. In diphtheritis Acidum nitri. is a far more preferable remedy than Thuja, which has, to my knowledge, hardly ever cured this disease.* *Vice versâ*, Thuja occupies a front rank in the treatment of variola of every degree, as a prophylacticum, and during the disease. Thus Dr.

* Dr. Ortleb in Gotha considers Thuja the safest and surest remedy even in malignant diphtheritis, and he lives in a country where the ravages of this disease are too well known. If this observation is confirmed by others, we would have again another link in the relationship of Thuja with Acid. nitri., perhaps also a valuable contribution for judging the very essence of diphtheritis, and we might then consider it a sycotic affection. We know numerous families who suffer frequently from diphtheritis, and where sycosis might be justly suspected. We never tried it with them in diphtheritis, but it has removed in their families some obstinate headaches. The benefit witnessed from iron in diphtheritis (the old school prescribes teaspoonful doses of Tinctura ferri pomati), proves the sycotic quality of the blood in such patients, according to the teaching of Virchow.

Rentsch affirms that since treating his variola patients with Thuja, he has not lost a case. He gives children five drops, grown persons ten drops tinct. Thuja in a wineglassful of water, a table-spoonful every one or two hours; or he precedes the treatment with Aconite where the eruption was not proven. In angina scarlatinosa and in laryngitis he gives Thuja in alternation with Jod.¹ and Hepar². In confluent small-pox, severe suppurating fever and beginning pyæmia with chills, Rentsch gives Mer. cor.³ alone or in alternation with Thuja.

2. *Thuja and Natrum Sulphuricum.*

The pathogenesis of Natrum sulphuricum is a full one, but with the exception of Grauvogl, we have very few clinical observations, and even this author considers Nat. sulph. less a simile for the cases in question than a corrigens or specific for the constitution, which he calls hydrogenoid. Still a comparison of the symptoms of Thuja and Nat. sulph. shows that they cover and complete one another.

GENERALITIES.

Thuja.

Weariness and bruised feeling in the extremities, especially in the afternoon, with aversion to motion.

Weakness of the body.

Aggravations of the pains when at rest and by warmth (Rhus tox.).

Twitchings of solitary extremities or of the whole body. Aggravation at night and at 3 A.M.

Natrum sulphuricum.

Great lassitude, especially in the afternoon; retires early.

Most troubles appear during rest and relief by motion (and in the fresh air).

Jerking in the extremities; jerking tearing, especially in the evening and at night.

SLEEP.

Frequent sleepiness.

Sleeplessness at night. Falls asleep late, with restlessness and tossing about; sleep full of dreams and startings. Restlessness and anguish, which do not allow him to sleep.

Anxious dreams. Severe headache after a deep sleep.

Sleepiness.

Falls asleep late on account of restlessness. Sleep full of dreams. Anxious dreams, with starting, as if in affright, and waking up in perspiration. Starting as if in affright soon after falling asleep.

At night in bed severe headache, which awakens him.

MIND AND DISPOSITION.

Thuja.

Mental uneasiness; low-spirited and desponding; tired of life; morose; dissatisfied; unsteadiness.

Natrum sulphuricum.

Weeping mood, indulging in sad thoughts. Ill-humored, taciturn, tired of life, despairs of getting better; vexed mood.

SENSORIUM.

Stupid feeling in the head, he cannot find the words to express his thoughts.

Dulness of the head.

Stupefaction of the head, *vertigo*; reeling sensation as after frequently turning in a circle.

Vertigo with dulness and heaviness in the head.

FEVER.

Chilliness; in the back, and even near the warm stove with sensible heat in the face. Horripilations after midnight, with yawning.

Chilliness; internal with yawning and stretching; sensation of chilliness the whole day with sensation of heat in the head. Chilliness with thirst, as if fever would set in; he cannot get warm in the evening and at night.

Chilliness in the evening when in bed. Shuddering chills through and through when uncovering the body ever so little in the warm air. Fever (with perspiration). Heat in the face.

Chilliness at night, waking with shaking and chattering of teeth. Frequent flashes of heat; dry heat in the whole body, as if sweat would break out, for several afternoons.

HEAD.

Headache early in the morning; sometimes he feels as if the head were screwed asunder in the articulation of the malar bone and the upper jaw; sometimes as if a nail were driven into the vertex with a jerk, sometimes as if the forehead would fall out.

Headache. Heaviness of the head. Pressure in the occiput; in the forehead, in the right frontal eminence in paroxysms; tearing in the right temple.

Heaviness in the head; bruised sensation; pressure in the head; pressure in the right frontal eminence, resembling a jerk, as if a nail were driven in. Drawing, tearing, stitching in the head; pulsations in the temples.

Boring in the occiput. Gripping pain in the forehead, as if it would burst; pulsations in the temples. Sensation of electric shocks in the head. Feeling of looseness in the brain.

SCALP.

*Thuja.**Natrum sulphuricum.*

Papules at the occiput. A spot on the left side of the head is painful and even the hair is sore to the touch.

Sensitiveness of the scalp, the hair is painful when combing.

EYES.

Pressure in the eyes. Burning in the eyes. Redness, blood-colored, inflammatory. Sensation of dryness. Lachrymation in the fresh air. Weakness of the eyes, with pressure as if from fine sand. Dulness of sight, with sensation as of a gauze before the eyes.

Pressure in the eyes. Burning of the eyes. Itching in the eye (and ear). Burning, with copious discharge of burning water from the (right) eye. Dryness and redness of the eyes. The eyes glue together at night with sensitiveness to light.

Photophobia tedious, especially mornings, with burning in the eyes. Dim sight from weakness of the eyes.

EARS.

Pressure in the meatus auditorius. Violent stitching pushes; tingling in the ears, roaring in the ears.

Pressure in the right ear from within outwards, as if the tympanum would be pressed out; stitches in the right ear. Ringing in the ears, as of bells. Hissing.

NOSE.

Corrosive creeping. Tensive sensation above the right nasal wing. Ulceration. Bleeding of the nose, nasal mucus mixed with coagulated blood. Sensation as if the nose were stopped up, coryza, dry coryza.

Itching at the wings below the nose as if an eruption would appear. Bleeding of the nose, even at night in bed. Coryza with obstruction of the nose and want of air through the nose.

FACE.

Jerking pains. Drawing, tearing, stitching. Gnawing corroding pain in the teeth. Toothache from evening till after midnight, as if the nerves were delicately touched, sometimes a jerking from time to time. Swelling of the gums with sore feeling. Stitching jerks in the posterior lower molars.

Tearing. Jerking pain. Pulsating toothache which does not allow him to sleep. Gums burning like fire.

MOUTH.

The inner mouth feels as if full of blisters, as if he had burnt it, with

Dryness; burning in the mouth, as from spices. Tongue burning, as

Thuja.

redness of the gums. The tip of the tongue is sore to the touch. Pressing stitching under the tongue. White coating. Swelling of the tongue. Soreness of the fauces. Sensation of dryness. Swelling of the salivary glands; they secrete a great deal of saliva, bitter or bloody saliva.

Natrum sulphuricum.

if full of blisters, in the afternoon. Burning blisters on the tip. Slimy coating. Slimy taste in the mouth. Burning of the palate as if sore and raw. Blisters on the palate with painful sensitiveness.

Salivation.

THROAT.

Sensation in the throat as if contracted, with the feeling as if mucus prevented swallowing, with roughness and scraping in it.

Constriction in the throat.

Dryness in the throat down into the œsophagus. Great accumulation of mucus in the throat, especially at night, with hawking up of salt mucus in the morning.

Swelling of the tonsils and throat.

Painful sensation of swelling in the mouth.

Inflammation and swelling of the tonsils and uvula, with difficulty of swallowing.

APPETITE AND TASTE.

Loss of appetite, Nausea. Thirst mornings when getting up.

After eating, slimy, sweetish taste in the mouth, or flat; bitter eructations as from a spoiled stomach. Pain in the pit of the stomach. After eating the abdomen bloats. Excessive flatulence. Bad effects from eating greasy things and onions.

After eating, sweat in the face, with tightness of the chest; very fluid saliva in the mouth with ineffectual heaving of the stomach.

GASTRIC SYMPTOMS.

Frequent eructations. Rancid, putrid, bitter eructations. Nausea with sweat over the whole body. Vomiting of a sourish liquid and of food.

Constant gulping up of sour water. Hiccough. Nausea with accumulation of a quantity of sour water in the mouth. Vomiting of saltish-sour water.

STOMACH.

Cramp pain in the pit of the stomach after eating with bloatedness. Painless beating, like pulsations. Anxious and qualmishness. Contractive cramp in the epigastrium. Gastrodynia.

Feeling of repletion in the stomach, extending to the chest, in the evening in bed. Feeling of fasting in the stomach. Boring in the stomach, as if it would be perforated, preceded by nausea and attended with diarrhœa. Boring as from canine hunger. Beating in the stomach. Burning and pinching.

ABDOMEN.

Thuja.

Pressure as from a stone in the hepatic region when walking. Pressure in the abdomen. Colicky pains, spasmodic contractive pains. Aching pains as from entangling and twisting of the intestines. (Thuja cured ileus.) Stitching. Burning. Bloat-
edness.

Grumbling in the abdomen. Noiseless emission of flatulence. The symptoms of flatulence are not so important in Thuja as in Natr. sulph., but the gastric symptoms show great consonance.

Natrum sulphuricum.

In the hepatic region great sensitiveness when walking. Stitches in the region of the liver when walking in the open air. Colic as previous to diarrhœa. Griping in the abdomen. Contractive pain in the abdomen. Pinching, griping, stitching, beating, burning, flatulence with constant feeling of repletion. Distension and tightness. Flatulent colic with difficult emission of flatulence. Incarceration of flatulence in the evening, with accumulation of saliva in the mouth, inclination to vomit and eructations. Rumbling in the stomach and abdomen. Emission of fetid flatulence. Stitches in the right and left groin.

STOOL AND RECTUM.

Constipation for several days, as from inactivity and incarceration of the intestines. Hard, difficult stool, or discharge of hard, large, brown fœces in balls, streaked with blood. Ineffectual urging to stool. At first ineffectual urging to stool, followed by a diarrhœic passage. Several loose stools. He passes blood during the stool with severe pain in the rectum, so that the fœces do not pass. Painful contractions in the anus. Burning stitching pains in the rectum. Burning in the anus.

Constipation or hard stool (the first days after renewed doses). Hard stool with pressure, sometimes streaked with blood. (Carlsbad water, whose chief ingredient is Natr. sulph., constipates patients when first using it.)

The stool is at first hard, then soft and diarrhœic.

Burning in ano.

URINARY ORGANS.

Frequent inclination to urinate; the stream is often interrupted before the urine is entirely voided. Frequent micturition; frequent and copious micturition after preceding straining, clear as water; has to rise several times at night to micturate. Red urine, depositing a thick brick-dust sediment.

Urging to urinate. Increase of urine, also nightly micturition. Burning during micturition. Copious micturition with brickdust sediment.

Urine with yellow-reddish sediment. Burning during or after micturition, or with pain in the small of the back after retaining the urine.

Thuja.

During micturition, cutting in the urethra, smarting and itching of the female pudendum, with the discharge of some drops of urine after micturating.

Burning, piercing stitches in the urethra.

Natrum sulphuricum.

MALE GENITAL ORGANS.

Profuse sweat of the parts, especially of the scrotum. Twinges in the penis. Stitches in the glans. Stitching itching, with moisture on the glans, like blennorrhœa. Round, flat, nuclear ulcers on the corona glandis.

A few red smooth excrescences behind the glans, under the prepuce, like figwarts. Tickling titillation or strong stitches in the figwarts, which bleed easily. Itching titillation at the prepuce. Severe swelling of the prepuce. Small pocks on the internal surface of the prepuce, depressed in the centre, humid, suppurating, painful.

Aching pain in the testes as if contused. Varicose degeneration of the epididymis. Continual erection. Pollution, with sensation in the urethra as if it were too narrow.

Itching on the glans or penis, obliging one to rub, also on the scrotum. Itching burning of the perineum and mons veneris, with scratching.

Excited sexual instinct in the evening. Erections with sexual desire in the morning.

FEMALE SEXUAL ORGANS.

Itching of the pudendum, which feels sore and smarting, especially during and after micturition. Burning and smarting in the vagina when walking or sitting. Itching stitching in the parts.

Cramp pain in the pudendum and perineum when rising from a seat. Swelling of both labia, painful and burning when walking and when touching them. Whitish ulcer on the inner surface of the great labium. Wartlike excrescences at the os uteri. Stitching and burning when urinating.

Sticking in the pudendum and vagina, in the afternoon while sitting.

Thuja.

Scanty menses. Mucous discharge from the female urethra. Leucorrhœa.

Natrum sulphuricum.

Scanty, retarded menses. Acrid, corrosive menses. Leucorrhœa.

RESPIRATORY ORGANS AND CHEST.

Stitches in the larynx. Sensation of crawling in the trachea. Hoarseness. Cough early in the morning when rising, as if excited by sharp things. Expectoration of gray, yellow or greenish little balls, or of yellow mucus, with pain in the pit of the stomach.

Difficult, oppressed breathing. Asthmatic sensation. Oppression of the chest as if something had grown fast to it. Stitches in the chest. Strong, visible palpitation of the heart, especially when ascending stairs.

Dry cough with soreness of the chest and roughness of the throat, obliging one to sit up and to hold the chest with both hands. Loose cough, early in the morning, from tickling in the throat, with some expectoration and with stitches in the side, with shortness of breathing.

Shortness of breath with want of breath. Oppression of chest in the morning when awaking. Stitches in the left side of the chest while walking fast, with inclination to cough, which is however impossible on account of the stitches.

BACK.

Dull painful pressure in the small of the back while stooping. Bruised feeling all over. Painful drawing in the sacrum and os coccygis. Sudden cramp pain. Stitches from the small of the back as far as the side of the pelvis, but stitches also between the shoulder-blades. Sore feeling in the outer parts of the back. Pain in the back as if stooping too much.

Feeling of stiffness in the nape of the neck with restlessness and nausea. Pain in the neck as if he had been lying on a hard couch. The veins of the neck are bloated and blue. Itching. Strong perspiration in the axilla. Brown spots under the arms like moles (brown spots on the hands are a sure indication for *Thuja* according to Kunkel).

Pain in the small of the back as if ulcerated. Bruised feeling during the night. Stitches in the os sacrum. Tearing in the back, along the bones, as if gnawed by dogs. Stabbings between the shoulders.

Violent pain in the nape of the neck, so that he screams out, extending deep into the occiput. Stitches in the nape of the neck, also at night. On the right side of the neck tearing with visible throbbing of the arteries. Stitches in the left axilla.

SUPERIOR EXTREMITIES.

Paralytic feeling in the arms, as if he had lifted too heavy a burden.

Heaviness in the right arm. Tearing in the upper arm. Tearing as in

Thuja.

Painful difficulty of moving the arms. Rheumatic pains. Severe drawing pains in the bones, as if the flesh were separated from the bones. Ulcerative pain from the axillæ to the tips of the fingers. Bruising pain in the upper arms, as if beaten black and blue. Boring in the joints. Stitching tearing in the forearms, a painless red circumscribed spot on the left forearm.

The skin, especially that of the hands, feels dry. Trembling while writing. Perspiration of the hands.

Tingling in the fingers, as if they had gone to sleep, redness and swelling of three phalanges.

Natrum sulphuricum.

the bones. Tearing in the right forearm. Itching pimples on the right arm with burning after scratching.

Pain of the flexor muscles of the hand, as if strained. Stitches in the right hand. Twitching of the hands and feet, especially after midnight. Loss of strength of the left hand, which is unable to hold anything heavy. Trembling of the hands. Burning and redness on the back of the hand, as if from nettles. Tearing in the index and middle fingers, and in the thumb, with stitches in the tip.

Tingling, as if gone to sleep. Watery blisters between the thumb and index finger. Stinging ulcerative pain under the nail.

LOWER EXTREMITIES.

Painful feeling of relaxation in the hip-joints, as if the articular capsules were too flaccid and weak to support the body. Tension from the hip-joint to the groin, and along the posterior part of the thigh down to the knee. Itching pimples on the buttock, with burning when touched or scratched. Burning stitches in the legs. The thighs and legs go asleep when sitting.

Cracking in the elbow, knee, and tarsal joints when stretching the limbs.

Pain as from dislocation. Weariness in the internal muscles of both thighs, as if they would break down.

A drawing pain in the bend of the knee, passing off by motion. Burning, biting stitches in the skin of both knees, as if an eruption would break out. Pimples on the knees, or suppurating, resembling pocks.

Pain in the heel, as if gone to sleep. Stitches above the heel, in the tendo Achillis. Inflammatory, red swell-

Violent pain in the hips, in the morning, when rising from his seat, less when stretching the limbs, and when walking. Burning and sore feeling in the bends of the hips. The thighs and legs feel weary and exhausted. Pain, as if strained. The legs feel weak, as if they had been crushed, with a drawing pain in them. A drawing pain in the calves (*Rhus tox.*). Burning heat of the legs. Feet painful and heavy as lead, with a sensation in the morning, as if strained. They feel very exhausted at night, with restlessness, so that he changes their position. Stiffness of the knees.

Lancinations and tearings in the heels, so that he screams out. Ulcerative pain, so that he can hardly

Thuja.

ing of the dorsa of the feet and of the toes, with tension when stepping on them. Voluptuous itching, with red, marble-like spots. Feeling of weariness in the sole. Drawing in the toes, especially in the big one; tearing stitching on both sides of the nails. Shining, red, inflammatory swelling of all toes with itching. Burning, tearing, stitching in the corns.

Natrum sulphuricum.

step on it. Stitching, twitching, burning in the sole. Glowing burning on the outer parts of the left foot. Itching on the soles and toes. Stitching in the toes. Twitching of the balls of the toes, as if they would be drawn together. Itching on or between the toes, while undressing, going off by rubbing.

The symptoms observed on the extremities remind one forcibly of gonorrhœal rheumatism, but the symptoms of Thuja in relation to the urogenital system are far more extensive than those of Natrum sulphuricum. We might compare Thuja also with *Lycopodium*, *Pulsatilla*, *Sepia*, *Arsenicum*, *Mercur.*, *Sulphur.*, *Phosphor.*, *Silicea*, or also with *Ignatia*, *Cina*, *Belladonna*, *Rhus*, etc. Jahr wishes furthermore Thuja to be compared with *Assafoetida*, *Bryonia*, *Cannabis*, *China*, *Cicuta*, *Ferrum*, *Ledum*, *Mangan.*, *Phosph. acid.*, *Sabina*, *Staphisagria*, and in the second order with *Aconite*, *Lachesis*, *Nux vomica*, *Selenium*.

In resuming the most important pathogenetic consonances, we find both remedies offer the picture of chlorosis or of (erethic) scrofulosis. We meet in both debility, physical malaise, sleepiness, or also disturbed sleep, mental depression. Both give us pulsating headache, excessive tendency to chilliness and horripilations, constipation (primary action in both), amenorrhœa, leucorrhœa, and the characteristic symptoms of gastric catarrh (white-coated tongue, Thuja; slimy taste, slimy coating, Natr. sulph.). The gastric symptoms (pot-belliedness) also belong to the scrofulous dyscrasia, and both show pressure in the hepatic region; hints of beginning tuberculosis in the respiratory tract; the swelling and inflammation of the tonsils, the obstructed nostrils (in Thuja even with ulceration), ophthalmia, with redness, photophobia, lachrymation, dim vision, and agglutination of the eyelids hint to the same dyscratic process.

The rheumatritis also finds a close simile in these remedies. Everywhere we meet the consequences of catching cold, of getting wet, or the attributes of senility; stiffness, snapping, and func-

tional disturbances in the bones, muscles, and joints, either in the form of podagra, tingling, and sensation of lameness in the extremities; tremors in writing; pains at night when at rest, or at the mere change of position, or in the form of discharges of uric salts, with the well-known troublesome accompanying symptoms, which may set in so markedly, that the consecutive symptoms overshadow the genuine and primary focus of the affection.

The pain in both is also characteristic, not only in its intensity, but we meet so often twinges and wrenching pains, wrenching headache, twinges in the head, twitching toothache, twinges in the penis. (Thuja.) Gripping, twisting, pinching colic; at other times the pains are pressing, tearing, and not rarely stitching. Natrum sulph. shows more than Thuja the sensation of soreness, of dryness, of ulceration, burning, itching. The nightly exacerbation of the pain is also of importance, its appearance when at rest, and its intermission, for twinges reach their acme, and then necessarily decrease.

Dissonances between Thuja and Natrum sulph.: Thuja is specific for the *proliferating syphilis*; whereas the indications of Natr. sulph. coincide with those of Carlsbad, and Thuja will never become such an important remedy in abdominal and hepatic diseases as the Sulphate of soda justly is. We acknowledge that many a cure performed by the Carlsbad Springs may frequently be only a chemical action, and not based on the law of similarity. It will be sometimes difficult to decide which of the two remedies to choose, especially in cases where there is only a mere suspicion of syphilis, sycosis, or of a hydrogenoid hereditary constitution, and where our patients deny any infection, or where too long an interval has passed since they were infected. We already mentioned that Thuja has more decided and numerous relations to the uropoetic apparatus and to the genital system. Natrum sulphuricum, on the contrary, acts on the portal system. Let us also not forget that Thuja causes perspiration over the whole body, or on single parts, and it is also characteristic that the nude parts perspire, but not the covered ones.

3. *Thuja and Causticum.*

Consonances.—We know already that Thuja gained some renown

as a remedy for rheumatic pains, but Causticum cannot be dispensed with in such affections; arthritic and rheumatic tearing in the extremities (ameliorated by warmth and in bed), shortening of tendons, twisting of the extremities with paralysis. Especially, this twisting leads us to another important consonance. We know that the sensation of shortening of the tendons and real contractions are equally a symptom of gonorrhoeal dyscrasia, and therefore also found in Thuja. The same may be said of luxation in the hip-joint when stepping forward, of the stiffness in the ankle-joint; *i. e.*, these manifestations, with the rawness and hoarseness in the throat, are often the expression of a beginning sycosis, therefore indications for Thuja, although they are equally characteristic of Causticum. In the latter we find also bleeding, inflamed, painful warts (especially on the nose), but Thuja and its action on excrescences is too well known.

Thuja as well as Causticum cure infiltrations of the skin, chronic processes originating either in local causes or in disturbances in the return of the blood and the lymph, or from constitutional defects. The latter can always be proven for Thuja; whereas the forms of cutaneous infiltrations, curable by Causticum, as acne, tubercle (*mentagra*), leprous exanthemata, fail to show such a specific origin.

Causticum is also an eye remedy, and cures not only the usual catarrhal inflammations (especially with burning pain), but also amblyopia, weakness of vision, and even beginning blindness, and this kind of amblyopia is always accompanied by dazzling before the eyes. Photophobia, even in the highest degree, is always present in the ophthalmia curable by Thuja.

The physiological and therapeutical relations of Causticum are not enough known. It is hard to say, in relation to Causticum, whether the disturbances met with in childhood are based on a (hereditary) constitutional disposition, as we so often meet them in scrofulous individuals. In both remedies we find *incontinentia urinæ* a paralytic, or in some cases an inflammatory, state. Indications for Causticum, as hæmorrhage from the urethra, bloody seminal emission during an embrace, may well be compared with the sycotic indications of Thuja, and it would be worth while to study under Causticum the symptoms of *lues gonorrhoeica* (the

sycosis of the ancients and of Grauvogl). Among such phenomena we recognize the unbearable restlessness over the whole body, the great sensitiveness to colds and draughts which we find in Causticum, but which also characterize sycosis. Thus we will better understand also the glandular swelling, simulating a struma, and which one of our most experienced colleagues considers a specific correlate of Causticum. The formation of numerous tubercles, which Wunderlich mentions when treating of the syphilitic tubercle, deserves also to be mentioned, and we must not pass by unnoticed, that Thuja and Causticum (especially locally applied) have cured fistulæ. Dr. Eggert mentions two cases of a blind external fistula. A cauliflower excrescence, of the size of a quarter dollar, had formed at the verge of the anus, with a foul-smelling exudation. Two doses Thuja^{2c} cured the case in nineteen weeks.

Dissonances.—Considering it possible that many morbid substrata, belonging to Causticum, may be sycotic in their nature, we find it more difficult to differentiate between Thuja and Causticum. But we know that the primary period of syphilis, or the stage of the so-called transitory manifestations, in other words, the transition to secondary lues offers the *materies morbi* for Thuja,—condylomata and moist tubercles. Gonorrhœa acquired during coition, and the long-lasting course of such an acquisition speaks for Thuja and excludes Causticum. We rather find the difference by depriving Thuja of its pretension to a specific constitutional remedy, and compare it with uncharacteristic dyscratic processes.

Let us consider, that the depression of all functions, a certain loss of all reactive power, hence states of paralysis lead far more to Causticum than to Thuja, which corresponds far better to erethic scrofulosis. Therefore, under Causticum, constipation, burning pain (both the expression of the languishing secretions), perhaps also the painful looseness of the teeth, the deafness of both ears, the formation of cataract, the stool passing away while standing, the urine while coughing. In Thuja, on the contrary, we meet a surplus of the producing life. Thus the nearly unlimited proliferation of pathological vegetations, as found in the condylomata, the warty excrescences, the spongy tumors and the

spongy pock. In fact, the exudates organize hastily. All morbid manifestations of Thuja are excessive; so the pain accompanying certain affections, the sleeplessness, the coaffection of the mind, the quantity of the (seropurulent) discharges (crises in the form of copious mucous and purulent fluxes). The excessive development of the panniculus adiposus also belongs here.

It cannot be mere accident that most of the diseases cured by Thuja, when the morbid state was localized, were observed on the left side, whereas under Causticum we find the right side of the body more frequently affected.

4. *Thuja and Staphisagria.*

We find under Staphisagria, in Hahnemann's *Materia Medica Pura*, arthritis nodosa of the joints, scrofulous and cachectic affections as from abuse of mercury, manifestations of mercurial disease, foul-smelling night-sweats, chronic skin diseases, herpes, tinea, nodosities in the margins of the eyelids, inflammation of the eyelids, inflammation of the facial bones, toothache, bleeding of the gums (scurvy), ulcers in the mouth, ischuria, frequent pollutions.

It cannot be denied that syphilis, modified by abuse of mercury, scrofulosis, psora, etc., shows great similarity to the pathogenesis of Staphisagria; but we also know that Thuja corresponds pathologically as well as clinically to that of syphilis. Staphisagria has, therefore, not only been applied beneficially in hydrargyrosis (Wislicenus), but Rummel thinks well of it already in sycosis, especially for the dry, filiform condylomata. When the same author recommends it also in struma, he probably means the glandular neoplasma, which might be compared to the glandula thyroidea, and which Grauvogl describes as the characteristic expression of the syctic dyscrasia. Thus it is also recommended for tonsillitis with salivation and stitches in the ear, for hypertrophy of the tonsils after mercurial abuse and the hard hearing emanating from it. For the same reason, the arthritis nodosa (of the finger-joints, ischias), the chronic skin diseases, acne, lupus, impetigo capitis, herpetic exanthemata, the swelling of the testicles, may often be considered sequels of such a modified syphilis, and for which Staphisagria shows a good clinical record.

But even apart from its quality as a constitutional remedy, Staphisagria offers still other points of consonance to Thuja, for neoplasmata (polypi), excrescences (on the gums), boils (organic), cough, facial pains (prosopalgia), ophthalmia (scrofulous and arthritic), are common to both remedies. The mental condition of Staphisagria forcibly reminds one of the description given by Kunkel, where we meet obstinacy, irritability, ill humor, and too often a clear case of melancholia. Staphisagria as well as Thuja act well in very high potencies.

Another unmerited similarity both remedies gained by being too much neglected.

5. *Thuja and Euphrasia.*

We frequently hear that Euphrasia had been used before or after Thuja, and only thus a cure was effected. Clinically, as well as in their pathogenesis, we find in either one a wealth of eye-symptoms. Kretschmar used Euphrasia with great benefit for the removal of maculae corneae, and we may suppose, therefore, that for the neoplasmata of figwarts, reminding one of cicatrized tissue by their resistance, that Euphrasia may be effectual even here externally applied. In the fourth volume of the *All. Hom. Zeitung*, p. 37, we read a short but clear proof of the anticondylomatous quality of Euphrasia. Cockscomb condylomata on the pudendis, and especially at and in the lower commissure, smarting to the touch, not bleeding, with mucopurulent discharge and burning during micturition, and a papular eruption on the thighs, was treated without much benefit with Thuja, Merc., Nitr. acid, in relation to the figwarts, but the internal and external use of Tinct. Euphrasia removed them in about two weeks.

(Chapters VII and VIII treat of the pharmaceutical preparation of Thuja and of the dose and its repetition. Hahnemann, Wolf, Kunkel, use the 30th, and give it time to work, especially as the infection was also given in one dose with unlimited time of action; others failed with the higher potencies and succeeded well with lower ones.)

IX.—CHARACTERISTICS AND CLINICAL HINTS.

All manifestations *eminently excessive*. They appear quietly, *sneaking as it were*, so that the beginning of the diseased state is hardly known.

The mind is in most cases greatly affected; children are very obstinate, mischievous, never in good humor; in later years a quiet melancholia.

Vertigo frequent. The most diverse *headaches* (amelioration by lying down, *bending the head backwards*); pressure, warmth, sweat; aggravation towards evening, before and after midnight; speaking impossible on account of a kind of unconsciousness; the eye-symptoms.

A peculiar dryness of the hair which is with difficulty kept in order; they are short, friable, split at their end or as if they were burnt, curling, fall out, or they grow very fast.

The most malignant blennorrhœa oculorum; diverse scrofulous ophthalmiæ; foul taste; the tongue looks like a map in consequence of linear protuberance of the papillæ; vesicles; nodules on the inner surface of the lips, especially the lower lip, frequently painful, suppurating, and forming a flat ulcer.

Canine hunger, alternating also with loss of appetite or long-continued loss of appetite, fulness after eating, or "as if he would burst;" excessive flatulence; *potbelliedness of children*.

Obstinate constipation or diarrhœa which can hardly be stopped; tenesmus, involuntary passage of fæces; nearly constant disturbances of the *uropoetic system*; urine extremely copious or abnormally scanty; micturition abnormally frequent or abnormally rare; in girls, soreness and redness of the labia majora, and pointed condylomata at the orificium urethræ; pointed condylomata at the glans and preputium.

Sexual organs extremely elated or depressed; irresistible desire for *onanism*, so that he gives himself up to his vice even during sleep.

Asthmatic troubles; cardiac palpitations, organic affections of the heart, phthisis pulmonum.

Excessive development of the panniculus adiposus. *Lipoma*, *warts*, sometimes of immense dimensions; pustules with dirty secretion, *e. g.*, at the extensor side of the fingers, on the skin of the whole body between the lamellæ of the epidermis.

Paretic weakness of the extremities, frequently even only a short time after the infection (in virulent gonorrhœa).

Sleeplessness, constant restless tossing about, or very deep unre-

freshing sleep ; starts and screams when waking up (in children), and it takes them a long time to become conscious of themselves.

Cretinismus.—The *exudations* (sycotic), especially in the abdominal cavity, show a tendency to excessively *rapid organization* and rapid growth.

The diversity of morbid states caused by this contagion is characteristic. It surpasses by far the syphilitic contagium.

Heat and dryness of the *covered parts of the body*, abundant sweat of the uncovered parts.

Leftsided affections (in advanced age) in women and children.

Sensation as if something had grown fast.

Sequels of vaccination and revaccination.

X.—SPECIAL RELATIONS TO THE FEMALE SEXUAL ORGANS.

It is well known that Thuja corresponds fully to woman's nature, inasmuch as the habitus of the female sex represents those characteristics which approach the hydrogenoid constitution or sycotic dyscrasia, or even Virchow's leucocythæmia. The same may be said of the infantile organism and its disposition to scrofulosis in its manifold dispositions. The abundant blennorrhœa, the many knotty indurations, the numerous glandular affections, even the greater tendency to vesicular spasm, to an impure skin (tedious ulcerations), to hæmorrhages, to anæmic and paretic states (coldness), the melancholia, far more frequently observed in women than in men, speak as clearly for our theory as we prove it by clinical observation.

Constantine Hering in his essay, *Obstetrics in America*, gives the following characteristics for Thuja: Nymphomania, inflammation of the sexual parts; eruptions on the sexual parts; condylomata (sycosis) on the external parts, chancre, aneurismatic tumors, pains in the vagina, vaginal fistulæ, condylomata in vagina or uterus; malpositions, hysteralgia, uterine cancer, ovaritis, dysmenorrhœa. During pregnancy, constipation, fissuræ ani, aches in the extremities, labor pains.

The patient frequently feels as if she could not exist any longer.

During an attempt to stool the pain in the anus and rectum is so great, that she gives it up without defecation; in fissura ani of pregnant women.

Very severe pain in the rectum during stool, which she cannot pass.

Very scrupulous in the smallest affairs.

5. Severe contraction in anus and rectum, followed by tearing in the intestines.

Burning irritation in the anus between one stool and another.

Severe burning in the anus while walking.

A terribly tormenting pain in the left iliac region while walking or riding; she has to lie down or go to bed for relief.

The same pain during the menses and extends then to the left groin.

10. Terribly tormenting pain in the left ovarian and inguinal region with scanty menstruation.

She suffers so much that she has to lie down.

The pains in ovaritis extend through the entire left iliac region, in the groin, and sometimes into the left thigh; the pains are sometimes burning.

In ovaritis, especially when the left one is attacked.

In uterine cancer, based on syphilis (?).

15. All her troubles are aggravated during menstruation, when they become nearly unbearable.

In some cases where a complication with sycosis prevents a contraction of the uterus, labor is rendered more easy by this drug.

The vagina is so sensitive that she cannot bear an embrace.

Pressing and contracting pain in the vulva while sitting.

Cramp pain in the vulva extending to the abdomen.

20. Vulva painful, sore, and fissured.

Burning fissures in the vulva, worse while walking or sitting.

Itching in the vulva while walking.

Ulcers on the internal surface of the vulva.

Chancre with pain, as if splinters were there.

25. Figwarts, condylomata and other excrescences or warts at or near the sexual organs, around the vulva and anus.

The warts are moist, suppurate, itch, stitch, bleed, and are painful.

Cauliflower excrescences, bleeding easily, and of a disgustingly foul smell.

Swelling of both labiæ.

A sensation as if the whole body were so thin and tender that it could not withstand the least attack, or as if it could not hold together. (Let us remember here the peculiarity of some insane, who consider themselves made of glass.)

30. Her pains prevent sleeping.

Aggravation at 3 P.M. and at night.

Itching, burning, and all pains aggravated by the touch.

Itching, burning, and aggravation of all pains when walking in the fresh air or during other motions.

Her pains, while moving about, are so severe that she has to lie down.

Internal Fungosities and Granulations of the Uterus.—We extract from Cramoisy's lecture, delivered during the Homœopathic Congress at Paris, 1867, the following :

These intrauterine granulations are only observed in women of sanguine temperament, and frequently undermine their physical and psychical existence. We must find out at first whether the accompanying hæmorrhage may not have another cause, as pregnancy, abortus, puerperium, metritis, ovaritis, hæmatocele, fibrous tumors, polypi, cancer, anæmia, plethora, etc. Granulations are fleshy excrescences, growing from the surface (mucous membrane) of the uterus. They are like warts or pedunculated, jutting out one to six millimetres, of soft spongy consistency, and easily detached. Thus they are similar to the common nasal polypus and *their presence hints to a syctic dyscrasia*, or generally to a chronic affection of the mucous membrane. They are a frequent cause of hæmorrhage, which may continue for days, weeks, even for months, or are characterized by their periodicity, and by the failure of relief from the usual remedies. Pains in the loins, in the kidneys, and in the hypogastric region, neuralgiæ of the sacral, inguinal, crural, ilio-lumbar, and even intercostal region. The number of such fungosities may vary between one to fifteen; leucorrhœa and bloody streaks.

Catheterismus (with the hysterometer) insures the diagnosis. They are most frequently seated on the posterior surface of the uterus, in the neighborhood of the orifices of the tubes, close to where formerly the placenta was attached (after miscarriage).

Partial or general metritis, periuterine swelling, malpositions, procliticiæ of the uterus, ovaritis, internal ulcerations frequently accompany this affection.

Nélaton leads our attention to the subjective symptom of a pain from the hypogastrium to the epigastrium (to the very heart), as the women usually express themselves. Recamier, the discoverer of the curette, scrapes these proliferations off with this instrument, but Cramoisy objects to surgical interference, as the uterus is so sensitive that it hardly bears examination with the sound, and he gives instead Thuja and Staphisagria, the antidotes to sycotic dyscrasia, and reports nine cases cured by the internal and external use of these remedies.

ARTICLE XXIX.—Leucæmia.

BY S. L.

THE more cases of leucæmia are observed, the more we become convinced, that most organs are more or less affected by it, not only the spleen and the peripheric lymphatic glands, but also the liver and kidneys, the respiratory and digestive tractus, the serous membranes, as pericardium, pleura, and peritoneum, the internal lymphatic glands, thymus, renal capsules, retina, and finally to a high degree the marrow of the bones. Virchow thought that the increase of colorless blood-corpuscles in the leucæmic blood is based on their increased formation, and that they, produced in the spleen and the lymphatic glands, pass from them into the circulation, and that the hyperplasia of the spleen and of the lymphatic glands, or of both accompanying the leucæmic process, must be considered as the primary organic disease of neoplastic nature (primary leucæmic lymphomata), and all others, caused by the changes in the blood, as secondary heteroplastic leucæmic lymphomata.

Prof. Biasiadecki on the contrary believes: 1. That neither the spleen nor the lymphatic glands, although so much increased in size, exhibit such changes, hinting to an increased production of colorless blood-cells. 2. That in leucæmia we rather find atrophy in the spleen, liver, and kidneys, and not hypertrophy. 3. That the colorless blood-cells are changed in consequence of a

change in their protoplasma. 4. That the enlarged colorless blood-cells are deposited in those organs or parts of organs, where blood-cells containing pigment or vermilion accumulate. 5. That the lymphatic glands frequently begin only to swell when the blood is already essentially altered, and when leucæmic tumors form in the skin. 6. We know also that in animals after extirpation of the spleen neither the blood nor the organs are found changed. Leucæmia therefore must be considered as a parenchymatous blood-disease, where with a normal new formation of the colorless cells, a metamorphosis similar to that of the parenchymatous cells in other organs took place, and where thus its change into colored blood-cells is prevented; hence leucæmia must be considered a diseased state where the blood is prevented in developing itself.—*Med. Jahrb.*, iii, 1876.

Reading now the classic Grauvogl, ii, 217, we understand still better the identity of sycosis and leucæmia, a process where the blood contains too much water. In all such morbid states we meet profuse mucous secretions, all exudations are gelatinous, and coagulation is retarded and imperfect, the deliquescent formations greenish, brownish, bright-yellow. No leucæmic (*i. e.*, sycotic) process ever gives pus or fibrin. He leads us then gradually to the hydrogenoid constitution of the body, where the patient feels worse in cold, damp weather and rain, and who can only be cured by remedies which increase the heat of the body. Aggravations therefore necessarily follow from everything which increases the atoms of water in the organism, as bathing, the use of animals living in water, cold food or cold beverages, etc. Periodicity is another characteristic of this process.

Since then, Neumann* discovered a medullary leucæmia, a change in the marrow of the bones, either a leucæmic hyperplasia of the marrow, which takes on a grayish-yellow or a yellowish-green appearance, or it looks gelatinous and of a grayish-red color, so that it was compared to currant jelly. In the latter, according to Ponfick,† the cellular hyperplasia is only moderate, and the red in the wide cavernous veins with serous or bloody imbibition of the

* Neumann, A Case of Leucæmia Medullaris. *Wagner's Archiv*, xi, 1876.

† Ponfick, Contributions to Leucæmia. *Virchow's Archiv*, 67, vol. 3.

intervening medullary tissue prevails ; in the former the neoplasma is so abundant, that the entire substratum consists nearly exclusively of young cells, thus producing a high degree of general ischæmia of the tissue. A characteristic symptom is the painfulness of the affected bones, so that palpation or even pressure can hardly be borne.

Mosler* considers as causes of general leucæmia abdominal stag-nations, menstrual anomalies, psychological influences, syphilis, inter-mittents, intestinal catarrhs, traumata especially for the medullary form, effects of colds, mental or bodily overexertions, and accepts three forms of leucæmia, of the spleen, of the lymphatic glands, and of the marrow of the bones, which may appear separately or as in most cases, all these organs are found more or less affected (splenæmia or leucæmia lienalis, lymphæmia or leucæmia lym-phatica, leucæmia medullaris). There is a prodromal stage of several days and weeks, or of several years, and the stage of fully developed leucæmic cachexia, where we meet lymphomata every-where. The manifestations in regard to the nervous system, as headache, malaise, downheartedness, as well as the paleness of the cutis and mucous membranes, find their cause in the anæmia. Emaciation is not always present. Digestion may remain normal ; the patients only complain after a full meal of pressure in epigas-trium, caused perhaps by the swelling of the spleen. Dyspnœa is only observed in far-progressed leucæmic cachexia.

It is certain that what Prof. Mosler considers as causes of leuc-æmia can only be accepted as accidental causes, but that we have to look farther back for the origin of the disease, and Biasiadecki is right, that something must have changed the bioplast of the colorless blood-cells, and thus prevented the blood-cells in develop-ing themselves. Grauvogl blames Hahnemann's sycosis for it, which produces in such persons a hydrogenoid constitution, and advises for the removal of these symptoms of retarded blood-met-amorphosis such remedies as produce a more active change of tissue, and thus bring more heat in the body, remove the goneness in the nervous system, and by their vivifying action restore the power of resistance to the influence of moist and cold atmospheric

* Mosler, Berl. Klin. Wschrft., 50, 1876.

noxæ. Nux vomica and Ipecacuanha in alternation (the former morning and evening, the latter during the day), are put in the front rank, then Aranea diadema. Natrum sulphuricum, according to this author, protects the red blood-corpuscles from the influence of superfluous water. One of the prettiest cases related by Grauvogl is found on page 313, where he remarks that in hydrocephalus the nutrition of the bones is always deficient, but the causes of this malnutrition of the osseous system exists already a long time before dentition. Sulphur and Calcareo phosphorica were here prescribed. In another case, page 309, he speaks a good word for that allopathic panacea, the Chininum sulphuricum (many of our old-school friends prefer nowadays hypodermic injections of amorphous muriate of quinine, 1 : 5). That Thuja, the compeer of Glauber salt, and our sheet anchor in sycosis, must be frequently indicated in this so-called leucæmia is evident.

Looking now at our Materia Medica, and comparing the symptoms of this triune leucæmia with the symptoms of the remedies mentioned, we find, quoting from the last and best work on our table, Hering's *Condensed Materia Medica* :

Natrum sulphuricum.—Depression of mind and irritability, muddled feeling, vertigo after dinner (from the swollen spleen); pressure in forehead, particularly after meals; hot feeling on top of head; scalp sensitive, hair is painful on combing it; weak eyes; large blister-like granulations; earache as if something were forcing its way out; ozæna syphilitica (rather sycotica, as no fetor is present); pale, wan face; slimy coated tongue with unpleasant taste; burning in gums, mouth, palate; loss of appetite and great thirst for ice or ice-cold water; pain in left hypochondrium or above on last ribs; stitches in left hypochondrium while walking in the open air; pain of a dead, heavy character going through from abdomen to back; diarrhœa, worse in wet weather, in the cold evening air; knotty, wartlike eruption on the anus and between the thighs; sycosis; hoarseness with fluor albus; great dyspnœa, desire to take deep breath during damp, cloudy weather; after sunset, oppressed feeling in chest and feeling of a ball in the throat, with tendency to cry; sycotic pneumonia, inexpressible agony, *slowly coagulating blood*; swelling of the ribs near the sternum (Pouffick's fourth case); piercing as from knives between

the scapulæ, also in middle of sacrum ; piercing in left axilla, on humerus, back of hands, fingers, under the nails ; piercing pain in hip-joint, worse from stooping, motion, rising from a seat or moving in bed ; pain from hip to knee ; prostration and exhaustion of the nervous system ; aggravation from cold, open air, from wet weather, damp place, from uncovering ; attacks come on suddenly every spring ; wartlike, raised, red lumps (lipomata) all over the body. Sycosis, leucæmia.

Thuja occidentalis.—Dissatisfied, quarrelsome, overexcited, angry at trifles ; vertigo with eyes shut, when rising from sitting, from stooping ; headache from sexual excesses, better in the open air ; scalp sensitive to the touch ; moist eruption on scalp, corroding on occiput and temples ; wants head and face warmly wrapped ; watery purulent otorrhœa, smelling like putrid meat, smell in the nose as of fishbrine ; coryza, fluent outdoors, dry in the room ; skin of the face greasy ; lips pale, swollen, peeling off ; decay at the roots of the teeth (as in sycosis) ; taste sweet as of putrid eggs ; aphthæ, mucous tubercles in the mouth ; desires cold food and drink ; rancid or acrid evacuations ; short breathing from fulness and constriction in hypochondria and upper abdomen ; cervical glands swollen ; skin on neck brown, greasy ; cracking of joints when limbs are stretched ; flesh feels as if beaten off the bones, etc., etc.

By comparing these two anti-leucæmic remedies we see that Natrum sulph. covers more symptoms than Thuja. Both remedies, according to Goullon, give us the picture of a depressed vitality, expressing itself by debility, physical malaise, sleepiness or disturbed sleep, psychical depression, excessive tendency to chilliness, so that they do not feel warm near the stove or in bed, a pituitous state through the whole intestinal tract and hence languor of defecation or diarrhœa, a bruised, sore sensation with pain of ulceration. We agree perfectly with the writer of this prize essay on Thuja, that Natrum sulphuricum will be more indicated in leucæmia of the spleen and lymphatic glands (abdominal affections), and Thuja more in leucæmia medullaris, inasmuch as Gross in his *Comparative Materia Medica* also gives us as symptoms for Thuja : Diseases of the bones (not of the periosteum), sensation of numbness in intestinal parts, œdema around the joints,

emaciation or swelling of diseased parts (hyperplasia, fatty degeneration, atrophy), etc., etc.

Natrum muriaticum.—The experiments of Plouriez, *Comptes Rendus*, t. xxv, 1847, indicate that the Chloride of Sodium exerts a tonic influence. Under its use the red corpuscles were decidedly more numerous, the fibrin slightly more abundant, and the albumen decidedly less abundant.* Nasse pointed out already the beneficial action of salt on the metamorphosis of the blood; Scherer remarks that the blood-disks by the addition of salt contract, become biconvex, and the consequence thereof is a brighter color of the blood, and Parsum assures us that very small doses of salt keep pure albumen in solution and render it accessible to chemical influences. It is now generally acknowledged that *Natrum muriaticum*, or as it is by some called, *Natrum chloratum*, plays an important part in the blood serum for the animal economy.

Vascular enlargement of the spleen is characteristic of *Natrum muriaticum* as well as of many zymotic diseases, and in chronic intermittens this remedy has long been considered one of our sheet-anchors. We recollect a case in our dispensary practice where a mother suffered during her entire pregnancy from malarious intermittens, for which she took large doses of Quinine, Deschler's pills, and other nostrums. Her child, when brought to the clinic, was puny and emaciated, but had a greatly enlarged spleen. For three months the child received off and on a dose of *Natrum mur.*², and by the end of that time it was as hale and hearty as any mother could wish.

There must be certainly something in *Natrum* which aids the metamorphosis of the white into red corpuscles and thus checks the splenæmia. Let us look at the symptoms of this polychrest and we find :

Hypochondriasis and weariness; bursting headache, caused by getting wet; liability to take cold in the head, worse in the open air; loss of smell and taste; secretion of clear mucus from the nose in catarrh; yellow, pale, livid, swollen face; skin of face

* We copy from Wood's Therapeutics, p. 565, and from Koehler's *Materia Medica*, p. 117. Hughes in his *Pharmacodynamics*, p. 560, must be therefore mistaken, when he says that in Plouriez's experiments the red corpuscles were diminished in number.

shining, as if greasy; alopecia; teeth sensitive to air and touch; gums sensitive to warm and cold things; excessive hunger with weak body and depressed mind; bad effects from acid food, bread, fat, and wine; pit of the stomach feels bruised when pressed, with swelling; stitches and pressure in the region of the swollen spleen; stitches in the liver; abdomen swollen; alternate constipation and papescient stools; fluttering of the heart, with a weak, faint feeling, worse lying down (Psorinum better lying down); sensation of lameness, and of a sprain in the shoulder-joint and in the hip; limbs feel weak and as if bruised; periodicity.

We miss the spider in Hering's *Condensed Materia Medica*, for we can never forget how an old grandmother cured my son with spider's web from intermittent fever, after the regular doctor of the boarding-school failed to make an impression on it in spite of his large doses of febrifuge remedies. Since then we confess to a fondness of granny's remedy, though most of our authors (Hughes, Burt, Teste, Bayes) are afraid to touch it. Granier, in his *Homœo-lexique*, i, 514, mentions it, but passes it by with a short pathogenesis. That *Aranea diadema* may be of use in leucæmia, and especially in leucæmia medullaris, we learn from the following symptoms (Allen's *Encyclopædia*, i, 433): Violent, dull, burrowing bone-pains, especially in the humerus and lower arm, in the tibia and os calcis, in the morning in bed and periodically during the day (Trink's *Arzneimittellehre*, i, 87); tired sensation, general malaise; papular eruption on the skin, here and there; restless sleep with frequent waking, and sensation of swelling and heaviness of the upper extremities; chills prevail during febrile attacks; headache with burning in the eyes and heat of the face; abdominal ailments; periods eight days too early, too strong and too copious; hæmorrhage from the lungs (non-coagulability of the blood?). The Sicilian physician Conditon praises the spider's web for stormy (nervous?) palpitation, and we find many neuralgic pains in the head, face, teeth, relieved by *Diadema*.

Nux and *Ipecacuanha* in alternation, says Grauvogl, each alone would not act so precisely and so satisfactorily. *Experientia docet ex usu in morbis*; it cures and this should suffice. Alas! that we wish the why and wherefore. Many of our physicians begin their treatment of recent intermittent fever with *Ipecacuanha*, to be fol-

lowed by *Nux vomica*, and it is even considered orthodox in the old school to precede the Quinine treatment by an emetic of *Ipecacuanha*. The primæ viæ must be cleared before the febrifuge can do its work, is an old axiom in the old school, and still the mild power succeeds equally well without such an upheaval. *Nux* night and morning, *Ipecacuanha* during the day, says Grauvogl. Is *Nux* or is *Ipecacuanha* an oxygenator? It is true that Anstie recommends *Strychnia* in troublesome coldness of the hands and feet, because it promotes capillary circulation, but Harley found that it lessens the respiratory function of the blood, in other words that it lessens the absorption of oxygen and the production of carbonic acid (Ringer, *Mat. Med.*, 481), or as these microscopical fungi are just now the *fons et origo mali*, and as intermittent fevers are caused by such intruders, can the action of *Nux* be explained by its inhibitory action on processes of fermentation? (Buchheim, Engel), for its favorable action in gastric catarrhs, in acidity and heartburn, in dyspepsia, flatulence, and constipation, is well known, used and abused by both schools. (Salicylic acid has lately been recommended to take the place of Quinine in intermittens.) Budd and Daubenton (Kœhler, *Mat. Med.*, 514) mention the same of *Ipecacuanha*, and praise its antifermenting action in dyspepsia emanating from torpor of the intestinal tract, where food remains undigested for a long time in the stomach, with relaxation of the whole body and mental torpor. Thus also its action in intestinal catarrhs and dysentery might be explained.

Is the alternation of these remedies perhaps better explained by the remark, that *Nux vomica* is a cerebro-spinal remedy, and that *Ipecacuanha* acts on the pneumogastric and perhaps also on the sympathetic? (as witnessed in its reflex action in vomiting of pregnancy, where its alternation with *Nux vomica* is also recommended). We acknowledge our inability to answer, but let us get our reply from their pathogenesis.

Nux vomica.—Hypochondriac mood of persons of sedentary habits and of those who dissipate at night, with abdominal sufferings and constipation (such persons have certainly their blood loaded with carbon, and are deficient in oxygen, and we find therefore this remedy so valuable also in the carbo-nitrogenous constitution); stupefaction, reeling in the morning and after din-

ner ; congestion to the head with burning in it and redness of the bloated face ; scalp sensitive to touch or to the wind, better from being warmly covered ; liable to take cold in the head, mostly from dry wind or from a draft ; taste bitter, sour, putrid in the morning, stitches in the region of the liver ; muscular rheumatism, etc.

Hence, no symptoms of outspoken leucæmia, and it needed therefore the aid of the *Ipecacuanha* to remove a hydrogenoid diathesis, for we read in the pathogenesis of the latter : Vertigo when walking or turning ; face pale, eyes sunken and with blue margins ; aversion to food and drink ; empty belching, nausea, and vomiting ; pain in left hypochondrium ; yellow, painless fermented stools ; cholera infantum, especially in fat, pale children ; pulse large, soft, accelerated but weak ; cold hands and feet ; oversensitive to heat and cold ; worse in warm, moist wind, catarrhs, asthma ; pains as if all the bones were being torn to pieces, with vomiting and pains in the bowels.

Just as we saw *Nux* complementary to the really indicated *Ipecacuanha*, so we find also in § 338 of Grauvogl the Sulphur complementary to *Calcarea*, and Farrington (*Hahnemannian*, Sept. 1876) describes well the character of the latter when he says that in such leucophlegmatic patients the activity of the lymph-glands is not proportional to the capacity for assimilation, *oxidation is imperfect*, hence there is a rapid deposit of fat in cellular tissues, but the tissues are imperfectly nourished. Face pale, by and by emaciated, with deep-set eyes from the failure of creating healthy blood, the natural metamorphosis from white to red blood-corpuscles is somehow protracted, and we meet, therefore, a false, unhealthy plethora ; mental and bodily labor fatigues on account of the faulty innervation ; congestion to the brain, because the lax fibre of the *Calcarea* patient permits these rapid congestions when an exciting cause exists ; decided aggravations from cold air, drafts, especially if *cold and damp*, worse from washing ; mucous membranes inflamed with copious discharge ; affections of the glandular system.

Why then complement the lime, be it *Calcarea carbonica* or *phosphorica*, with the far-reaching and thus much-abused Sulphur ? Is it necessary ? Grauvogl fortifies his dictum by his

cures. What then is the action of Sulphur? How infinitesimally little does the old school know about the action of this grand remedy! We must look for an explanation in the words of our authors, especially of Hahnemann himself. In his *Organon*, § 18, we read: "True, natural, chronic diseases are those which owe their origin to a chronic miasm; they constantly extend, and notwithstanding the most carefully regulated mental and bodily habits, they will never cease to torment their victim with constantly renewed suffering to the end of his life, if left to themselves without the aid of specific remedies for their relief;" and § 171: "In chronic diseases, originating from psora, it is often necessary to employ several antipsoric remedies in succession, each of which in its turn had been homœopathically selected, in accordance with the group of symptoms left uncured when the preceding remedy has terminated its action;" or § 182: "The remedy, imperfectly adapted on account of the unavoidable deficiency of symptoms presented by the case, will serve the purpose of bringing to light the symptoms belonging to the disease."

How often do physicians interpolate Sulphur for that very reason of bringing to light the symptoms belonging to the disease, and we see that Grauvogl did it in his case before he turned to the *Calcarea phosphorica*. But it seems also that it takes a carbon-nitrogenous remedy to strengthen the action of the hydrogenoid drug. Böcker already found that under the use of Sulphur all excretory organs become more active, and that they remove from the organism carbon and nitrogen; it is also well known that there are many chronic diseases accompanied by diminished excretion of carbon and nitrogen, and that Sulphur cures such cases, because its use increases the process of oxidation (Grauvogl, ii, § 305).

We find in Sulphur the same false plethora as in *Calcarea*; the patient may even be fat as in *Calcarea carb.*, but he is always nervous and hasty; we find in both the same congestive states, in both aggravation from change of weather, getting wet (and checking sweat in Sulphur) and Grauvogl, especially as his treatment is successful, may be therefore justified in his weekly alternation.

Mosler, in fact the whole regular school, relies regularly on antiperiodic treatment *ad nauseam*; and this celebrated clinical teacher prides himself on his cure with 20 grains *Chininum sulph.*

per day, mixed with Oleum Eucalypti, Piperin, etc. May we ask the question, whether the Peruvian bark and its alkaloids are homœopathic to leucæmia (sycosis)? Of the Eucalyptus tree it is known well enough that it absorbs the malaria, and that its healing property consists in giving off Oxygen, and Piperin, especially like our Capsicum, is a favorite remedy for some intermittents according to the symptoms. But what is the action of Cinchona? It is supposed that quantitative anæmia far more than qualitative changes in the constituents of the blood is the characteristic of the action of Cinchona. Authorities differ whether it acts as an anti-periodic or as an antimalarial remedy, and even its destroying power of the fungi is still held in suspense by able writers. Alas! everywhere doubt, everywhere uncertainty, and that staunch defender of pure homœopathy, Dr. Lippe, is right when he proclaims that our only safety as healers lies in a strict adherence to the principles laid down by the master. Let us therefore look to the pathogenesis of Cinchona and we read: Dislike to mental or physical exertion, nervous irritability, with fainting, loss of sight, ringing in ears; intense throbbing headache; periodical neuralgia; loss of appetite in foggy weather, at other times voracious hunger; slow digestion, food remains long in stomach; pain in hepatic region as from ulceration; swollen, hard liver; enlarged spleen; aching, stitching pain in spleen when walking slowly, pains extend in direction of long axis of spleen; asthma worse autumn, wet weather; oppression of chest as from fulness of stomach; pain in limbs worse from slight touch, then increasing gradually; pain in every joint, bones, periosteum as if strained, with lameness and weakness of affected parts; muscular relaxation; dropsy from liver and spleen diseases.

Even such an astute observer as Prof. S. A. Jones is known to be, was in doubt whether *Picric acid* is a hydrogenoid or a carbonitrogenous remedy, a doubt very natural when he considers that in both constitutions there is a deficit of oxygen. We meet here also the wet weather pains, the great chilliness, followed by cold clammy sweat, a perversion of nutrition, wherein the balance between waste and repair is disturbed and which tends towards incomplete oxidation of the blood, but *Picric acid* attacks the blood through the nervous system and it can therefore be only of use in

leucæmia as a complementary remedy, or in the words of our good friend Jones, *mutatis mutandis*, it needs sometimes the aid of a carbon-nitrogenoid to stir up the indolence of a hydrogenoid, thus Nux to Ipecacuanha, Sulphur to Calcareo, perhaps Picric acid to keep the destructive process at bay which devitalizes the whole system. Its symptoms, as far as elucidated, give us certainly a clue when to apply it; let us combine with our safe guide of *similia similibus* the studies and researches of all schools; on the one side we will be more confident of curing our patients, and on the other side we might perhaps be able to add our little mite for the diffusion of medical knowledge.

We may be allowed in conclusion to cite a few cases from No. 1, 1877, of the *Berl. Klin. Wochenschrift*:

1. A man of 30, who never was sick before, observed for some time a considerable decrease in his strength and a paleness of his skin. Objective symptoms were enormous paleness of the skin and mucous membranes, and a moderate hepatic and splenic tumor. Other morbid symptoms, as swelling of the lymphatic glands, albuminuria, dropsy, retinal hæmorrhages, were totally absent.

2. A girl of 17, always enjoying good health, but of a hæmorrhagic disposition, suffered from her sixteenth year, when puberty developed itself, from profuse menstruation, which weakened her greatly. Still she kept at her work, till another hæmorrhage, lasting two weeks, made it necessary for her to enter the hospital. She was of waxy paleness and showed excessive vascular murmurs. No other symptoms were present, especially no albuminuria nor retinal hæmorrhages.

Dr. Litten took some blood from both patients with the artificial leech, and found it thin, fluid, of a brighter color than normal, and of a grayish-red tint. Microscopically the red blood-corpuscles were found greatly diminished, so that the number of white blood-corpuscles appeared relatively increased. The latter belonged *in toto* to the finely granulated form, and were of extremely large size. In the red blood-corpuscles the central depression was unusually deep, so that the disk appeared colorless and transparent; most of them really gave the impression as if they were hollow in the centre, and reminded one greatly of those characteristic forms in

the urine, only with the difference, that in the preparations from the blood the peripheric zone of each blood-corpuscle was dark and colored, whereas the ring forms, as found in the urine, are colorless. Prof. Leyden observed an analogous state in a case of pernicious anæmia.

Virchow in his *Cellular Pathology* (fourth edition, 266) describes these small blood-corpuscles as disintegrated red blood-corpuscles. Vanlair and Masius (*De la Microcythemie*) consider them as a transition form of the red blood-corpuscles preceding their total destruction. In their case there was also enlargement of the liver and gradual atrophy of the spleen. Quincke and Eichhorst found them in the blood of individuals suffering from pernicious anæmia. Hayem (*Gaz. des. Hop.*, 110, 1876) found these microcytes regularly in the blood of persons suffering from chronic anæmia.

Hence, from allopathic and homœopathic experience, Cinchona and its alkaloids find their application in qualitative as well as quantitative anæmia. Its antizymotic qualities are thus proved as well as its antiperiodic power. We can easily understand now why in some cases it must be *the remedy par excellence*, when life is threatened by the loss of that fluid which in its integrity only can support life. We need not dispute whether Cinchona is able to destroy fungi or not, whether it is an antifebrile remedy or not, thanks to our shibboleth, *similia similibus curantur*, Cinchona will cure, when the symptoms of the remedy correspond to those of this polychrest, but still it would afford more satisfaction to the inquiring mind if we could only always find out the why and therefore!

Can the same be said of *Phosphorus*? inasmuch as at a recent meeting of the London Clinical Society, Phosphorus was discussed in relation to its curative qualities in some forms of leucæmia, where there is, according to Broadbent, an excessive cacoplastic action in blood-formation. Jenner believes that it may be useful in lymphadenoma, but that it would be useless to give it in splenæmia. Greenfield truly remarks that mere hypothesis may be a good servant but a bad master, and no decision could be arrived at until a trial of a drug had been made in a number of cases under different conditions, and all possible sources of error eliminated.

This is the exact standpoint which homœopathy claims, and

we are glad that some members of the old school begin to coincide with us. In fact we believe more and more from our readings that there are two classes of leucæmia, which ought to be kept strictly separated, one where an excessive formation of cells takes place, but they are deficient in the quality to be transformed into red blood-corpuscles (the hydrogenoid constitution of Grauvogl), and the other where disintegration and death of the red blood-corpuscles produces the cacoehymia. Here Cinchona, here Phosphorus may be in their place, as we deal here not with a checked metamorphosis, but with a retrogression in the blood. It is well known that fatty degeneration is the great characteristic of Phosphorus, and hence, where the symptoms correspond, it may be indicated in some cases of such "false" leucæmia. Strict individualization is necessary, for the symptoms of true and false leucæmia are very nearly akin. We meet in both cases a hæmorrhagic diathesis, bronchial and intestinal catarrhs, a pale and cachectic appearance, but thanks to Hahnemann, such generalities do not suffice us in the selection of a remedy, and though we may remain in doubt about the pathological histology of the case, there will be no guesswork in our therapeutical measures.

ARTICLE XXX.—Clinical Observations.

BY J. A. TERRY, M.D.

(Continued from page 318.)

CASE XVII. CHANCRE AND BUBO.—Mr. F. S., æt. 37 years, and a carpenter by trade. This patient has had eleven gonorrhœas, is tall, spare habit, and of medium strength, being a Cuban by birth. He presents himself now with an ulcer, round and small (about one inch in circumference), with irregular, hard, and elevated edges, its situation being on the left side of the glans penis, and of a lardaceous and indurated bottom to complete the objective signs of a Hunterian chancre. Besides, there is an inguinal gland in the left groin swollen, red, hard, and sensitive to touch, showing all the signs of a bubo. He complains of having fever every

day at 12 m., which lasts until 3 to 4 A.M., ending with a slight perspiration all over. He is thirsty, has bitter taste in his mouth in the morning, does not find good taste to the water, and has no appetite. Itchiness in the penis and scrotum, also in the legs, and a thick dandruff (pityriasis) on the hairy scalp and beard. Coryza, and a broken-down feeling all over, complete his symptoms.

Has been doctoring with *regulars* for a month; has swallowed 20 pills (mercurial), has used *black wash* and a red ointment locally; all this to no avail, getting from bad to worse. Feb. 12th, 1876. *Rx.* Hepar. sulph. calc., 3d trit., 12 powders, one morning and noon. Feb. 18th. He reports that he is getting better. Has no more fevers since taking first powders; the bubo has come to a head or softened; the chancre appears reddish at the bottom; the borders are flattening, and the itchiness has entirely left. *Rx.* Hepar sulph. calc., 3d, 10 powders, one powder every night on the tongue. Feb. 22d. I pricked with a bistoury the bubo, and it discharged an aqueous and sanguinolent pus. The patient improving in health, the appetite good, and the ulcer filling up with healthy granulations. Feb. 29th. Cured entirely of the chancre, bubo, and rest of the symptoms, except pityriasis, for which I gave him a small vial of Hep. to take for some time. This patient, since has not shown any signs of secondary nor tertiary syphilis up to date, and perhaps for this circumstance some will consider my diagnosis to be incorrect, for they seem to think that the manifestations of syphilis in its secondary or tertiary forms are things unavoidable in true specific Hunterian chancre; but let me assure such that I have yet to see the case where those *sequelæ* have occurred in my hands after the proper homœopathic treatment of such patients, of which I possess several interesting observations.

CASE XVIII. PHARYNGITIS ULCEROSA.—Mr. Charles H. S., 33 years of age, strong, good physical development, weighs 150 pounds, and sanguineous temperament. He tells me that about *ten* years ago he contracted two buboes, one in each groin, which after painting with iodine and poulticing some time, gathered, broke, and discharged matter, his physician giving also some pills to take, and was discharged cured. Since then he has enjoyed good health and got married, not complaining of anything. Has no children.

Now he presents himself with a large ulceration of the palatine arches, uvula destroyed, tonsils half so, and pharynx a mass of granulations and ulceration. The swelling and tumefaction great, forming two ridges with jagged edges in the sides of pharynx, and the submaxillary glands externally also swollen. The smell is strong, like manure from a stable, and the parts covered with a thick lardaceous and filamentous puslike secretion. It appeared at first sight like a cancerous degeneration of the throat; of course the age of the patient, the absence of cachexia, his rosy cheeks and good nutrition, contradicted this idea. Complaints of much pain when swallowing; liquids are difficult to swallow, and come out partly through the nose; empty swallowing often; his throat gets very dry at night, and is worse; perspiration at night when sleeping, otherwise well and strong. He began to feel this sore throat about eight weeks ago, and has been gargling with borax and *goldthread* (*Coptis trifolia*); but getting worse he examined his throat with a looking-glass, got frightened, applied to the nearest physician, who refused to have anything to do with it, and sent him to a well-known specialist; but he did not go for fear of being burnt with caustics, and came to me. He denies entirely having contracted any other disease of the genital organs but the one referred to above, *ten* years ago, so that we must come to the conclusion that the syphilitic virus has been latent in the system of this man for the last ten years, and now develops itself in a more destructive sore throat of a specific nature than I have had in private practice. The medication began the 13th of March with *Mercurius corr.* 10^m, 4 powders; the 17th, *Merc. j. r.*, 3d trit., 12 powders; the 22d, about the same, and constipation, *Lachesis* 100^m, 4 powders; the 27th, *Kali bichrom.*, 3d trit., 12 powders, until April the 7th, when I gave him *Kali hydriod.*, 6th trit. (S.), 12 powders, and he kept on improving until the 27th, and he was getting along nicely, when of his own accord took two tablespoonfuls of Rochelle salts for the bowels that were constipated, but next day another focus of ulceration started in the soft palate, and I gave him again *Kali hydriodic.*, 15th trit. (S.), until May 30th. That improvement ceased, and I resorted to *Aurum mur.*, 6th dil., v. gutt. ter die. This last medicine completed the cure about the first week in July, when he came to report that he was entirely

well, and could swallow perfectly all food and drink, and could speak without any nasal twang. The throat appeared natural in color and form, minus uvula and part of tonsils, and some small parts of velum palati, but they retained their natural elasticity and no scars were to be seen. I doubt very much that this result would have been obtained if astringent as well as escharotic applications had been applied, and which give rise often to cicatricial bands or hardening where the edges of the ulcerations are, consequently forming ridges, destroying or interfering with the elasticity of the parts afterwards, and as a natural result a nasal twang, or a difficulty to swallow liquids, which come through the nose, as I have known of several cases.

CASE XIX. CHRONIC BRONCHITIS AND APHONIA WITH OZÆNA AND EPISTAXIS.—Clara L. del S., a little girl eight years old, of scrofulous diathesis, has been suffering for the last three years with a diseased condition of the air-passages, for which the old-school treatment has proved impotent all that time. Her symptoms are, cough of a loose nature and rattling, worse when going to bed and at night, with a yellow and whitish expectoration, tenacious, stringy or filamentous. Coughing fits, like hooping-cough, attended with dyspnoea and vomiting of this tenacious rosy phlegm. Aphonia, the sound of voice being rough and deep. Ozæna, the yellow, fetid discharge filling up the nasal cavity, and when blowing it out, blood appears mixed with it, and often, when detaching hard pieces of secretion from the nostrils, a regular epistaxis follows; this occurrence taking place often, consequently this patient is anæmic and unhealthy objectively. She complains also of ardor urinæ. Larynx swollen around the tissues of the glottis. Feb. 27th, 1875. *R.* Kali bichrom., 3d trit., 12 powders, one every night and morning. March 5th. About the same. *R.* Kali bichrom.³, 18 powders, one ter dies. March 12th. Better. No epistaxis, aphonia and cough disappearing. *R.* Kali bichrom.³, 6 powders, one every 48 hours, and did not come any more, but I went to inquire about a month after and found the child entirely well and fleshy.

CASE XX. DIPHTHERITIS.—Alma I. C., a little girl 23 months old, of highly nervous temperament, and always healthy. This little patient was suddenly attacked one night, about 10 o'clock,

with convulsions of a clonic type that lasted about ten or fifteen minutes, followed by vomiting of what had been eaten for tea, and a sour fluid, with the appearance of fever simultaneously if not previous to all these prodromata. I was called hastily and not found in. Another physician was requested to see this case, but I happened to arrive one hour after, and found the other doctor had just prescribed a powder on the tongue. We found great prostration with high fever and flushed face; the skin was clear of eruption. We examined the throat next, and did not find any trace of inflammation, patch, ulcer, or membrane, and we concluded to give Belladonna in water and wait. The parents of this child lived on a top floor, ventilation was good, the rooms kept very clean, there was no sickness in the house, and the weather was cold, with plenty of snow in the streets, being January 15th.

Next morning I went to see the case, and found that my patient was under the influence of a diphtheritis that was developing rapidly from right tonsil, which was covered with a grayish patch in all its extension, and submaxillary glands of same side swollen, high fever, pale face, stoppage of the nose, and cross. Prescribed *Lycopodium*²⁰⁰ in water, every two hours, and a cold water bandage to the throat often renewed. Next morning found the child worse, left side and uvula invaded, oedematous condition of throat internally and externally, great paleness, tendency to stupor, scanty secretion of urine, discharge from nostrils. Prescribed *Apis*²⁰⁰ in water, every two hours. The child grew worse steadily and died next morning in convulsions; the throat being externally very swollen up to chest, the fetor intolerable, and much discharge from nose; the larynx was not attacked. The duration of the disease was three days and some hours, and its nature was of the malignant phlegmonous type. I did not expect to save this child, taking into consideration the prodromic symptoms in a child of only 23 months, having previously observed that it is very difficult to save children of that age when attacked with real specific diphtheritis. But the absence of inflammation, membranous deposit, or patches from the fauces, together with the severe symptoms of prostration, convulsions, and high fever, that were present since the very beginning, and before any sign of the disease appearing in nose or throat, making the diagnosis uncertain at first, led us to consider that one

practical and theoretical lesson is to be learned from such cases as this and others that I have observed, and that is, the logical and natural conclusion that *diphtheritis vera* is a constitutional disease *per se*, affecting the whole system *primarily* with the intoxication of that peculiar and characteristic vegetable organism called bacterium termo or micrococcus, which floats in the atmosphere in times of epidemic diphtheria, and which, after poisoning and saturating the constitution through the circulatory current and lungs, gives rise *secondarily* to the great prostration, convulsions, fever, membranous deposits, etc., etc., which constitute this disease in its full form and character. Every miasmatic disease has its organic, local affinity for some part of the body, and as typhoid fever chooses the glands of Peyer and the ileo-cæcal region for its local manifestation; scarlatina, the skin and throat; measles, the skin and bronchiæ; small-pox, the skin and mucous membranes; cerebro-spinal meningitis epidemica, the base of the brain, spine, and meninges; cholera Asiatica, the mucous membranes of the gastro-intestinal system; epidemic dysentery, the large intestines and rectum; epidemic influenza, the nasal passages, etc., etc.; so it is with diphtheritis. Its local manifestation, or the place where the pathological product of this systemic intoxication manifests itself secondarily, is the tonsils, velum palati, uvula, pharynx, nasal cavities, and larynx. It may spread from these places by contact or contiguity to the trachea, bronchia, lungs, etc., but let us take in consideration that it takes this course in the first place because there is a predisposing and acting condition working in the system and favoring spreading, and second, because it is the special nature of this disease to invade the contiguous tissues, if not checked by internal specific medication.

The natural deduction from this reasoning and observation would be to lay aside entirely the local treatment so universally adopted and tenaciously adhered to, not only by the opponent school but by many who profess to be homœopaths, and who base their treatment on the opposite theory that I have been impugning. Let us consider that removing or destroying the membranous deposits in the fauces with local medications, no matter how effective, is attending to or taking care of only a simple *effect*, a mere symptom; a characteristic pathological and local manifesta-

tion of a hidden, constitutional, specific virus, which is producing this local phenomenon as a secondary consideration to let us know the special character of the disease we have to treat internally, and nothing else.

In exceptional cases, it may be argued, that the membranes mechanically may cause asphyxia, intense dyspnoea, or interfere with deglutition. In such cases I would advise the removal of the exuberant exudate with the handle of a spoon or other suitable instrument, or by the atomization with alcohol and water often repeated, which is the best, least offensive, and non-antidoting local application that we possess, or by the hot water vapor to help the early detachment of the exudations; but this is the only local interference I would consider available under the circumstances. To try to cure or abort cases of diphtheritis with local medication, applying astringents, burning the throat with caustic applications, or trying to destroy the membranous deposits with strong solvents, etc., is not only unprofessional but against the recent medical observation of the best writers on the subject. To those who are not convinced I refer to Ziemssen's *Cyclopædia*, vol. i, p. 672, and there they will find stronger reasons yet to abandon such a practice, and putting life in jeopardy.

CASE XXI. THREE PISTOL-WOUNDS, HÆMORRHAGE, AND SHOCK WITH COLLAPSE.—Mrs. F. M., 48 years of age, thin and delicate, mother of three grown sons and a married daughter. I was called in haste to find this patient in a collapsed state, the result of three bullet-wounds from a revolver, received at the hands of her insane husband about *two* hours previous to my arrival at her bedside. The first shot caused the bullet to enter between the second and third ribs, one inch from the margin of the sternum outwards, and perforated the tissues of the thorax in an oblique direction and downwards to the right, going clear through the lung and imbedding itself in the lower margin of the trapezius muscle of same side. The second bullet struck the external aspect of the left thigh in its upper part, and went obliquely downwards burrowing itself in the vastus externus, causing a deep flesh wound of about six inches in length, the bullet remaining at the bottom of it. The third bullet wounded the wrist at the palmar

aspect, and perforated the integument for two and a half inches, causing a flesh-wound with two apertures. These injuries were inflicted by a revolver, in close proximity, during a struggle with the aggressor, who fired five shots, three taking effect. The result from the thoracic wound was a profuse hæmorrhage internally as well as externally, and hæmoptœ of an active type with a slight cough; the other wounds did not bleed much, or to an alarming extent.

When I arrived, I found this lady in a complete state of collapse, pulseless, coldness of the surface, hippocratic countenance, and coughing up with a slight effort and often a foamy, bright-red blood. I entertained few hopes of recovery, I must say; however, I put in half a glass of water some pellets of Cinchona off., 200th, and administered a tablespoonful of this solution every *five* minutes, alternately with a little brandy and water. The hæmorrhage ceased entirely in about fifteen minutes, or after the third dose, and then they were repeated every hour. *Complete reaction* took place in about forty minutes, which I partly consider owing to the influence of the medicine, brandy and water, and partly to the confidence this patient had in homœopathy and myself; however, it was remarkable to observe it so soon from such a frail physique and such an injury. Five hours later this reaction took the form of a high fever, which was expected, and Aconitum nap.²⁰⁰ was alternated with Cinchona³⁰⁰ every hour, until about midnight, when the fever abated considerably, and she enjoyed a few hours of quiet sleep. The pulse went up to 120 at the height of the fever, and temperature to 103° F. An incident worth mentioning occurred shortly after my arrival, and when reaction of the patient was fully established. The principal members of the family desired to have the bullets extracted as soon as possible, for so they said was the general practice, and besides, they feared some dreadful result if not. I squarely denied the petition, and refused even to probe or attempt to take out the one in the thigh. But they were not satisfied, and then I proposed a consultation with Dr. W. T. Helmuth, Professor of Surgery in the Homœopathic College of this city, and this gentleman saw the patient, approved my decision of not interfering or probing for bullets in cavities of the body, as a rule, and advised the use of Veratrum viride in drop doses of the tincture,

when the fever should appear to control the action of the heart, and to reduce the pulse so that hæmorrhage would not reappear and endanger the life of our patient, which, with the gentleman's pardon, I did not do, and stuck to Aconite and Cinchona, that gave the favorable result above expressed. Final result: the wounds all healed by first intention, the hæmorrhage never returned, and the bullets are undisturbed in the place where they imbedded themselves, causing no inconvenience whatever, now four years since the injuries. But one more incident I have to mention before I finish the report of this case. This affair happened at the end of November, 1873, and this lady used to suffer from a dry, hacking, incessant, teasing, nervous cough every winter, and as soon as the first fire was lighted in the house, lasting until spring; and having tried a great many remedies and doctors without any benefit, she concluded there was no cure for it. Five days after the accident the cough to be sure, appeared, with a constant tickling at the suprasternal fossa, and concussive in its nature. The family became alarmed, and more so the patient, who naturally thought that she was going to bleed again from her wound in the lung. I reassured her, and gave a single dose of Ignatia²⁰⁰. The cough ceased in a few hours, and she was again about the house before the end of the third week after her injuries.

CASE XXII. RHEUMATIC NEURALGIA.—Mrs. S. S., 50 years old, and mother of two grown sons, has been for the last ten years suffering more or less with subacute rheumatism, which occasionally would assume an acute character and give her considerable pain in the joints of the lower extremities, particularly the knees. She has a marked rheumatic diathesis, an herpetic eruption around the margin of the eyelids (blepharitis ciliaris), and herpes facialis of long duration, which also point to a taint in the system of herpeticism, that must render her troubles more tenacious and difficult of eradication if antisporics are not given.

For the last two months has had pain on right side of head in temporal region, right eye, and malar bone, with swelling of the temporal muscle and aponeurosis, stiffness of sterno-cleido-mastoid muscles, worse in the right one, and a snapping sensation in that muscular region when moving the head.

The stiffness is worse in bed and when beginning to move the

head. Pain in the eye worse mornings and evenings. When storming or the weather is going to change, the pains get worse in head and shoulders. Perspiration on the chest in the mornings. Sleeplessness relieved by hot applications and aggravated by coldness. April 11th. Prescribed Gelsemium 50^m (S.), 2 powders on the tongue, and Sac. lac. in water. April 15th, reported to feel much better. She sleeps better and neck not so stiff. Sac. lac., 2 powders in water. April 20th. Worse again, pain in head is constant, neck remains better. Gelsemium 200th, 4 powders dry, one every twelve hours, Sac. lac. in water. April 28th. Much better; pains entirely gone; next day began to improve and has not been troubled since; but *now* she feels a wheezing in right ear and a sensation as if it was going to gather; stiffness and numbness of the right orbicularis palpebrarum muscle (the upper part), the right eyelid semiparalyzed and ptosis obtained; heaviness in right side of occipital region; nervous deafness of right ear (congestive?), and membrana tympani natural in appearance. R̄. Causticum²⁰⁰, 2 powders, and Sac. lac. cured promptly the last symptoms, and patient was discharged.

CASE XXIII. PERIOSTEAL RHEUMATISM.—Mr. A. B. de L., fifty years of age and a segar-maker, came to see me for medical advice the 24th of April, saying that about four days ago he felt as if going to have a very severe cold, with chills, pains in both knees and bones, fever about 11 o'clock A.M., with heaviness in the head and eyelids. He took Aconite²⁰⁰ in water then, but no better; comes to my office to get cured of the following symptoms: Fever in the evening followed by perspiration after 10 P.M. lasting until morning; pain in both tibiæ, as if in the bone; pain in both knees and right hip (ilio-femoral articulation); the pains began in the ankles and have an upward tendency; he gets worse by moving, and he begins to notice aggravation of all his symptoms at *sunset* until 5 o'clock in the *morning*, when they cease and he is better; feels worse in bed, where he gets very restless, worse lying on right side, and still worse on *his back*, which position he cannot endure; dryness in his mouth with moderate thirst, want of appetite, and notices pain in the right forearm now and then as if in the bones.

April 24th. *Ry.* Pulsatilla, 200th, 4 powders, *dry*, morning and night.

April 27th. No better, cannot leave his room; worse if anything, with following symptoms: Persistent aggravation when evening approaches until 5 A.M.; bitter taste, clean tongue; cannot stay in bed; bad humor or irritable sadness, aversion to be alone and desires company; general perspiration all night after 11 P.M.; constipation and stools in the form of balls or lumps; urine high-colored, reddish, with a copious deposit of uric acid at the bottom of the chamber in the form of red sand, and strong putrid smell; anorexia, with desire for raw oysters. After some vacillation in regard to the selection of the proper remedy, I asked him if he ever had contracted a chancre or a bubo, and he answered in the affirmative, but that it happened about twenty years ago, when he had a chancre of the soft variety. I was going to give Lycopod., which would have been a wrong prescription, but with the last information I decided for Kali hydriod., 15th trit. (S.), in water, and the improvement under that medicine showed itself rapidly, so that the 12th of May he reported entirely well, and has been so now a year and a half.

CASE XXIV. LARYNGITIS AND NASO-PHARYNGEAL CATARRH.—Mrs. K. R., thirty-one years old, robust, plethoric, and housekeeper. Three months ago took a sleigh-ride in the night when it was very cold; she sang, screamed, and amused herself. Next morning when eating at breakfast a crab she felt something that hurt the throat. In the evening of same day she began to be hoarse, and it kept on increasing until she became completely hoarse and could not speak above a whisper. Three or four hours after getting up in the morning she cannot speak loud, but always the voice remains husky, and she thinks she is getting from bad to worse. Thinks also that a piece of the crab must be lodged in the left side of throat, where she feels a pain since it hurt her three months ago. Always hoarse in the morning, and cough at midnight, which wakes her up, with a kind of spasmodic, choking cough, and tickling in suprasternal fossa. Soreness of the thyroid cartilage to touch, and pain in left side of throat extending to the ear. Swallows better solid food than liquids. The

cough is dry and harsh, excited by a tickling in suprasternal fossa. She feels worse in the evening, in the morning and after sleep.

Examination with the laryngoscope revealed the glottis, vocal cords, arytenoids, and folds swollen and congested. Posterior nares and upper part of pharynx covered with a yellowish-green secretion, which trickles down the throat and causes hawking, spitting and nausea, with a bad taste. The cold air also makes her feel worse.

May 2d. After reassuring her that there was no foreign body in the larynx, I prescribed Lachesis 200th, 4 powders, with Sac. lac. 10 powders, 1 powder morning and night. Cold water applications every night when going to bed around the throat.

May 9th. Better of hoarseness. Coughs only in the morning (8 to 9), and has more phlegm. Sensation as if the piece of crab was there yet. *Rx.* Laches.⁶⁰⁰, 4 powders, Sac. lac., 10 powders. Objective symptoms showed with the laryngoscope an improvement. To keep on with cold water embrocations.

This patient did not come any more, but I went to see her about two weeks after the last prescription, and she talked as plainly as any one who has a healthy larynx, and declared herself well. So I noticed she was, and the cure was obtained without local internal applications, or insufflations, or atomizations, etc., to the parts affected, and only through close individualization with the proper similitum. If such results can be obtained in a case like this, Case 18th and others that will be published, I do not see the necessity of local interference with any medicinal substance, unless a want of knowledge of *Materia Medica*, or adherence to a routine inherited from the allopathic practice, which interferes always with nature wherever a chance presents itself in a sick person for local medication, and surgical cases excepted.

ARTICLE XXXI.—Croupous and Diphtheritic Conjunctivitis, with Cases.

BY GEORGE S. NORTON, M.D.

It will be our endeavor in this article to give in as concise a manner as possible a picture of these two forms of conjunctivitis,

the differential diagnosis between the two, prognosis and homœopathic treatment, and follow this by a description of two marked cases of these rare affections, which have of late come under our observation.

CONJUNCTIVITIS CROUPOSA (MEMBRANACEA).

*This form of inflammation of the conjunctiva is characterized by a membrane-like layer, lying upon the surface of the inflamed conjunctiva, covering it to a greater or lesser extent, and more or less firmly connected with it. The inflammatory symptoms which precede the formation of this false membrane are variable, being sometimes no more than are present in an attack of acute catarrhal conjunctivitis, though usually they reach a higher degree of development, similar to that observed in purulent ophthalmia. The lids appear red and œdematous; the injection of the whole conjunctiva is excessive, especially at the oculo-palpebral folds, where the swelling and infiltration of the conjunctiva are greatest. A muco-purulent secretion is now observed, which increases in quantity at first, becoming stringy and less in amount as the membrane forms, and again increases as the latter disappears, assuming the characteristics of a blennorrhœa of the conjunctiva. The membrane usually makes its appearance early, and varies greatly according to the degree of inflammation; if very light, only a *thin, transparent, threadlike, albuminous layer*, covering the whole of the conjunctiva, or in patches here and there, is found; this is loosely connected with the conjunctiva, but can be easily torn off, when a bleeding surface is left behind. In other cases a very *firm, thick, opaque, yellowish-white layer covers the surface of the conjunctiva in shreds or as a dense membrane*, and is with great difficulty removed, until a few days have elapsed, when it becomes loosened and can be readily rolled up, leaving behind an easily bleeding surface. This exudation is generally more marked on the palpebral conjunctiva of the lower lids. It may here be remarked that these changes may occupy only a circumscribed portion of the conjunctiva and be confined to one eye, though they are usually general and involve both eyes.*

In the further course of the inflammation, this exudation degenerates into a stringy purulent mass, which is thrown off at various

times together with patches of the membrane, leaving, in severe cases, marked proliferation of the papillæ of the conjunctiva, swelling as well as new formation of lymph follicles, etc., etc. *Later it passes over either into the catarrhal or blennorrhœal form of conjunctivitis.* In rare cases, however, the above symptoms increase, the stroma of the conjunctiva and lids become infiltrated, and the croupous conjunctivitis has taken on the diphtheritic form.

The cornea does not usually become variously involved, except in severe cases and in the blennorrhœal stage, though slight keratitis is often present.

The etiology is similar to that of catarrhal conjunctivitis. It occasionally appears as an epidemic and is often developed by contagion, not only from the secretions of the same form of conjunctivitis but from any of the others. *This disease is very contagious,* and may cause not only croupous conjunctivitis but any other variety, even diphtheritic; it is therefore usually observed in both eyes. It may occur either in adults or children, though more frequently in the latter between the ages of six months and four years.

The pathological changes which characterize this form of inflammation are as follows: As a result of the inflammatory process, an exudation of albuminous bodies (fibrin) takes place on the surface of the conjunctiva, and quickly coagulate on exposure to air, thus forming a pseudo-membrane; intermixed in this will also be found new cell elements, upon the quantity of which depends the tenacity, firmness, and opaque character of the membrane. This exudation is attached to the surface of the conjunctiva, which loses its epithelial layer, though suffers no further loss of substance, so that after recovery no cicatrices remain. After the membrane has been thrown off a catarrhal or blennorrhœal form of inflammation usually follows, during which the epithelial cells again develop.

Many authors do not describe croupous conjunctivitis as a separate form of inflammation, but only as a condition which may be present in catarrhal or blennorrhœal conjunctivitis. For it is well known that croupous conjunctivitis is commonly developed from one of the above forms, being only a higher degree of inflammation, and that as recovery takes place, it again assumes a catarrhal, blennorrhœal, or trachomatous appearance; we also notice, not rarely,

in blennorrhœa of the conjunctiva, an exudation which adheres slightly to the conjunctiva. These latter cases I do not believe should receive a distinct classification, but only those cases in which a marked membrane is present. Why should it not receive a distinct appellation as well as similar forms of inflammation of other mucous membranes (pharynx, larynx, etc.)? It should also be designated as another form of inflammation, as the changes are different from other conjunctival affections, and our prognosis and treatment, accordingly, vary to a great extent.

The prognosis is generally favorable under careful treatment, as any corneal complication that may arise is not usually severe, though maculæ may result and perhaps posterior symblepharon from adhesion of the abraded conjunctiva in the oculo-palpebral fold.

CONJUNCTIVITIS DIPHTHERITICA.

The diphtheritic form of inflammation of the conjunctiva is characterized by the development of a tough, firm, inflammatory product into the tissue of the conjunctiva as well as on its free surface, cutting off the nourishment of the conjunctiva, which degenerates into a necrotic mass and is thrown off in a puslike secretion.

Diphtheritic conjunctivitis is usually acute in character, and may reach a high degree in a very few days. The lids, especially the upper, are very red, swollen, hard, and stiff, the temperature of which is materially increased. The upper lid hangs down over the lower, and frequently becomes so hard that it is even difficult to make an indentation with the finger. Upon forcibly opening the lids, a thin, cloudy, hot fluid, mingled with yellowish flocculi, pours out. *The conjunctiva has a yellowish-white, pale, waxy look, its surface smooth, almost glistening, and here and there dotted by red points*; this apparent covering cannot be separated from the conjunctiva, as it is in the tissue itself. This appearance is particularly constant at the oculo-palpebral fold, though it extends also over the ocular conjunctiva, which is greatly chemosed, forming a high wall around the cornea. Only a few if any vessels can be detected in the conjunctiva, though numerous little apoplexies are observed. The pain may be very severe or moderate in degree; the same may be said regarding the general febrile appearances.

Generally after six to eight days the inflammation gradually abates, the hardness of the lids diminishes, and the exudation upon and in the conjunctiva becomes loosened and thrown off in a pus-like secretion, mixed with shreds of membrane, leaving behind a red, easily bleeding surface, which assumes the appearance present in true blennorrhœa. As the disease advances the secretion becomes more and more like a true blennorrhœa, which is the second stage of the diphtheritic process.

The last stage might be called the "cicatricial," as on account of the destructive changes which take place, *scars always result*, more or less pronounced according to the severity of the case, sometimes being only superficial and again involving the cartilage and deeper tissues of the lids, causing entropion, symblepharon, secondary corneal affection, etc., etc.

It must be borne in mind, however, that each case does not run such a marked course as above laid down; thus, one stage may be more pronounced, cause deeper destruction of tissue, or vary in many ways, especially in severity, from that of other cases.

The diphtheritic process may be confined to one portion of the conjunctiva (the so-called partial diphtheritic conjunctivitis), while the remainder is excessively hyperæmic, with serous infiltration, but destitute of the membrane, or it may be total, involving both the ocular and palpebral conjunctiva, as is generally the case.

The diphtheritic product in the conjunctiva is probably one of the lower forms of organism, though just what has not yet been definitely determined. It is known, however, that in this infiltration of rapidly coagulating material, an immense number of new cells are formed, which are closely pressed together in the infiltrated portion, thus impeding or checking entirely the circulation of the blood, so accounting for the paleness of the membrane and occasional extravasations. From this obstruction to the blood supply, cutting off the nourishment of the conjunctiva, the degenerative changes are due. This slough now comes away in shreds or purulent secretion, leaving an ulcer in the conjunctiva, which afterwards heals, showing later the inevitable scar.

In all three stages corneal complications may occur. It usually, especially in the earlier stages, takes the form of a central ulcer or abscess, as that portion would be first affected by the lack

of nourishment, though a ring abscess or marginal ulceration may result, either of which may go on to perforation, staphylo-matous bulging, panophthalmitis, etc. In fact a corneal complication is rarely absent in this form of inflammation. The keratitis observed in the cicatricial stage is usually more chronic and superficial, like pannus. The diphtheritic process may occasionally extend to the integument of the lids, particularly the lower, on account of its being covered so often by the swollen upper lids.

This form of conjunctivitis may appear as an epidemic, though usually only sporadic cases are observed and is very rarely seen in this country, having been especially found in Northern Germany. It may develop in an eye previously sound or one already diseased; is more frequently observed in children (from $2\frac{1}{2}$ to 7 years of age) than in adults, though the new-born infant does not suffer immunity from this serious malady. Diphtheritic conjunctivitis may be only a local affection, or it may be associated with the diphtheritic process in other mucous membranes, with general symptoms of exhaustion, etc.

This affection may be only the local manifestation of a general process, or it may be caused by inoculation from an eye already similarly affected, or from the secretion of a croupous conjunctivitis, blennorrhœa, etc. Again, then, other forms of inflammation may at different stages take on a diphtheritic character.

It must be remembered that the diphtheritic product is extremely contagious, and great care must be taken to prevent its extension by inoculation; also that it does not necessarily cause diphtheritic conjunctivitis, but may give rise to any of the other forms of inflammation.

This is the most destructive form of external inflammation of the eye we ever meet, therefore the prognosis is usually unfavorable, especially if the cornea becomes implicated in the early stages; if not affected until later the prospects are better. It has also been observed that the process is not as severe when the cornea was previously pannous, etc. The disease is not as dangerous, *cæteris paribus*, in children as in adults, and in sporadic cases as in epidemic. When complicated with diphtheria in general the prognosis is more unfavorable.

The principal diagnostic points between croupous and diphther-

itic conjunctivitis are as follows: The lids are firm and hard in conjunctivitis diphtheritica, which is not the case in conjunctivitis crouposa. The membrane is more firm, glistening, yellowish-white in conjunctivitis diphtheritica than in conjunctivitis crouposa; it is also dotted by numerous points of extravasation, which are not found in the latter. *The exudation in conjunctivitis diphtheritica is in the tissue of the conjunctiva, while in conjunctivitis crouposa it is on the surface. Conjunctivitis diphtheritica always leaves cicatrices in the conjunctiva, while conjunctivitis crouposa does not.* Serious corneal complications are much more frequent in the former than in the latter.

Treatment.—There are no other acute ophthalmic affections, which the old school seem to be more powerless to combat than croupous and diphtheritic conjunctivitis; their mainstays in all external inflammations of the eye, namely, caustic applications, are here found to be worse than useless, and they are compelled to rely on antiphlogistic treatment chiefly, as ice compresses, bloodletting, etc. Mercury is also advised by some and condemned by others. The insufflation of flowers of sulphur has of late been recommended by Bergmeister, though it does not seem to have met remarkable success. Other remedies have been also advised, but proved of little avail in checking the progress of the disease.

Homœopathy justly claims superiority in the treatment of these diseases of the eye as well as in similar processes involving other mucous surfaces. The first point in the treatment is to endeavor to prevent the extension of the disease; with this end in view, if only one eye is affected the other should be kept very carefully bandaged in order that the extension may not take place through inoculation, which is liable to result from the great contagiousness of the secretions. In spite of this precaution, however, the second eye will frequently become implicated through the general dyscrasia but not by inoculation. We should be particular to warn all connected with the patient of the excessive contagiousness of the discharge, so that they may exercise the greatest care against inoculating themselves or others.

Regarding local applications much might be said both for and against their employment. For our own part we would not advocate the idea that chief reliance should be placed upon topical

applications, but we do consider the use of certain remedies under certain circumstances and with certain restrictions, advisable as aids in the treatment of these serious troubles. First and of the greatest importance is *cleanliness*; all possible measures should be resorted to, in order to enforce this point, that the eyes be frequently bathed and the discharges thoroughly removed by the use of tepid water; this is particularly serviceable in the blennorrhœal stage though adapted to all. It is better not to exercise any force in removing the false membrane, as it only leaves a raw surface, upon which a new membrane forms, thus doing more harm than good; though all loose shreds should be carefully removed whenever the eyes are washed.

The application of caustics, strong astringents, or the like, are always injurious, and should never be employed under any conditions. In the early stages of these inflammations relief is often obtained by cold compresses, ice-bags, etc., which frequently seem to exert a beneficial influence over the course of the disease; I would therefore recommend their use, either medicated or unmedicated, according to the indications present.

A weak solution of *alcohol*, as recommended for the diphtheritic deposit in the throat, we think exerts a beneficial influence upon the false membranes found in the eye. I have usually employed it in the proportion of one drachm of alcohol to two ounces of water, allowing the eyes to be frequently bathed with this solution, and in some instances cloths wet in it laid on the eyes.

Carbolic acid in solution is another remedy which should be of great service in either of these affections, reasoning from its importance in diphtheria, as especially extolled by Dr. Lilienthal. It has been recommended by Sæmisch* for croupous conjunctivitis, and A. Græfe† has also obtained good results from its use in diphtheritic conjunctivitis. A one per cent. solution was used by them.

Chlorine water has been lauded by some, though I have never seen its use followed by favorable results, and do not think it commonly indicated, unless it may be in the blennorrhœal stage.

* Handbuch der gesammten Augenheilkunde.

† Klin. Monatsbl. f. Augenheilk., 1873, p. 91.

Nitrate of silver, as a caustic, should never be employed, but the potencies from one to thirty in water are of the first importance when the membrane has broken down and there is a profuse purulent discharge.

Permanganate of potash and other remedies used in croup and diphtheria may be thought of.

If the cornea has become involved, threatening central perforation (as is usually the case), Atropin should be instilled, and if still perforation seems to be unavoidable Sæmisch's incision through the cornea should be made. Bandaging is not generally applicable to these cases, though warm applications may be substituted for cold.

In all cases our chief reliance must be placed upon internal medication. When either disease is associated with the general process, as shown in other mucous surfaces and by constitutional symptoms, the indications for the remedy must be drawn from the whole disease, and the eye complication regarded as only a symptom. I shall not touch upon the selection of the remedy when based upon the constitutional process, as there are now so many able articles and monographs on these subjects before the profession that it could only be a repetition of that already written. There are a few remedies though that I would suggest, if only the local manifestation in the eye is present.

Aconite.—Of the greatest importance in the first stage, especially prior to the exudation, if the *lids are swollen, red, and hard*, conjunctiva very hyperæmic and chemosed, *severe pain* in the lids, eye, and head, with much *dryness, heat, burning*, and excessive *sensitiveness to air* or touch. General febrile symptoms usually accompany the above.

Apis mel.—Particularly useful in croupous conjunctivitis or very early in diphtheritic, before the lids have become firm and hard. The lids are *red and œdematous*, especially the upper; marked chemosis of the conjunctiva; pains may be severe but of a *stinging, shooting* character; lachrymation profuse and mixed with pus. Patient drowsy and thirstless.

Argentum nit.—Will be found more commonly indicated than any other remedy in the blennorrhœal stage of either disease, providing the discharge is profuse and purulent. Has very little

result, if any, on the membrane itself. As previously mentioned, would advise the use of this remedy externally at the same time it is given internally.

Arsenicum.—Particularly of service in weak cachectic children, who are very restless and thirsty, especially at night after midnight, lids swollen, lachrymation and discharges excoriating, and burning pain in and around the eyes. (See case appended.)

Hepar sulph.—Indicated in the blennorrhœal stage, or if the cornea is ulcerating. Pains are usually severe and relieved by warmth.

Kali bichrom.—This is probably one of the most important remedies we possess for both croupous and diphtheritic conjunctivitis, especially the latter. Dr. S. P. Burdick relates to me a very severe case of diphtheritic conjunctivitis, occurring in his practice, associated with the general process, which recovered rapidly under the influence of this remedy and *Kalmia lat.* It is indicated when the membrane is present on the conjunctiva, especially if shreds or strings of it float loose in the eye. The discharge is of a stringy character, and mixed with tears. The non-vascular form of ulceration observed in these cases will also point to its use. General symptoms will confirm the above local indications.

Lachesis.—A great tendency to hæmorrhage upon removing any of the membrane, or even without doing so, would point to *Lach.* The general appearance would also suggest this remedy.

Mercurius prot.—The various forms of Mercury may be indicated, though we believe that the protiodide will be more commonly called for; the concomitant symptoms must decide between the different preparations. Is indicated in all stages of the disease, particularly if occurring in a syphilitic subject. The membrane may be present on the conjunctiva and the cornea ulcerated; though the ulceration is usually more vascular and of a severer type than that observed under *Kali bichrom.*, and the pains, photophobia, and other symptoms generally of a higher degree. The nocturnal aggravation is often present, as well as characteristic appearance of tongue, throat, etc.

Phytolacca.—Reasoning from its importance in diphtheria and also from its usefulness in severe ocular troubles, marked by *firm*,

hard swelling of the lids, it ought to prove a valuable aid in diphtheritic conjunctivitis.

Pulsatilla.—Blennorrhœal stage if *Argentum nit.* does not complete the cure.

Bromine, *Chlorine*, and *Iodine* are also remedies which would be forcibly suggested to our minds, though the characteristic eye indications are not marked.

Among the many remedies of service in croup and diphtheria we would mention the following as more likely to be called for in the above diseases of the eye: *Aurum*, *Calc.* (chlor.), *Carbol. ac.*, *China*, *Graph.*, *Kali iod.*, *Lyc.*, *Rhus*, and *Sulph.*

Case 1. Conjunctivitis Crouposa.—Maggie M., 2 weeks old, was brought to my clinic at the New York Ophthalmic Hospital, October 26th, 1876, for treatment. For over a week the child has had a purulent discharge from the eyes (*ophthalmia neonatorum*); which, owing to improper treatment, has not improved. I now find the lids of both eyes only moderately swollen and œdematous, while the discharge is also not excessive but tenacious, stringy, and of a yellowish-white color. *Right eye*. Cornea clear; conjunctiva of lids (especially lower) covered with shreds of exudation, loosely attached to conjunctiva but easily removed, leaving a bleeding surface and hypertrophy of papillæ. *Left eye*. Large ulcer on the lower half of the cornea, which has perforated and is now bulging; the remainder of the cornea is also opaque except a small rim at the upper border; conjunctiva of lower lid covered with a dense, white, semitransparent, fibrinous exudation, which cannot be removed without much force. A similar appearance is present on the conjunctiva of the upper lid, though it is not as densely covered nor as firmly attached to it. *Argentum nit.*³⁰ was used both externally and internally.

Oct. 27th. No change in the appearance of either eye. Made *Sæmisch's* incision through the cornea of the right eye, finding the iris adherent to cornea but lens in position. *Atropin* was now instilled, *Bromine*³ prescribed internally, and *Aqua chlorinata*, diluted one-half, as a local application to both eyes.

Oct. 30th. Can see no change in the membrane, though the purulent discharge may be less. The child is very restless at night, particularly the latter part; wants to nurse often and little at

a time. Arsen.³⁰ every three hours internally, and Alcohol, one drachm to two ounces of water, as an external application.

Oct. 31st. Membrane less and softer; opens the eyes some; sleeps better. Continue.

Nov. 1st. Membrane loosening and very little remaining in right eye; removed easily much of the exudation from the left eye; sleeps well. Repeat.

Nov. 6th. The false membrane has disappeared from both eyes, except an occasional shred. The discharge has become purulent as in ophthalmia neonatorum. Very marked enlargement of the papillæ of the conjunctiva is observed; cornea of right eye clear and the ulcer on the left nearly healed. Child sleeps well and nurses good. Argentum nit.³⁰ externally and internally.

Nov. 18th. Has been steadily improving, so that now only slight, obstinate discharge is present. Puls.³⁰ internally.

Dec. 28th. Has been well since last date. A dense adherent leucoma is now found in left eye, but the cornea is slowly clearing at the upper part and the anterior chamber becoming deeper.

Remarks.—This represents a typical case of croupous conjunctivitis, its course and results of treatment. It is especially peculiar on account of its appearance in so young a child (two weeks), and probably during the course of ophthalmia neonatorum. It also shows the marked benefit obtained from Alcohol as a local application, Arsenicum as an internal remedy, when Chlorine, etc., had failed. The benefit of Sæmisch's incision on the ulceration of the cornea is also apparent.

Case 2. Conjunctivitis Diphtheritica.—Allen M., æt. 1½ years, was brought to my clinic September 19th, 1876, for treatment of his eyes. For seven months has been suffering from scrofulous ophthalmia as shown by phlyctenules and ulcers on cornea and conjunctiva, during the last four of which I have attended him. He would recover very nicely from each attack, though a fresh crop of phlyctenules would again appear. Have not succeeded in preventing the mother from nursing the child. For some time the child has been troubled with "hives," and is very cross and restless. To-day the lids are seen œdematously swollen, not hard, while on the integument of both lids of the right eye a yellowish-white opaque membrane was observed, which was removed on

attempting to open the lids, leaving a raw bleeding surface. The photophobia was excessive, and the lachrymation profuse mixed with flocculi. On opening the eye phlyctenules were observed on the cornea and conjunctiva, but no appearance of a false membrane. Graphites³ every two hours.

Sept. 20th. The membrane has returned on both lids of the right eye, firmly cementing them together, so that it was with difficulty they could be torn asunder by the aid of probes, to release the tears and pus confined in the eye. The appearance of the eye is about the same as yesterday, though the lids are a little harder. The false membrane is commencing to form on the lids of the left eye. The child is very feverish, restless, and has no appetite, though suffering no difficulty in swallowing. Chlorine water diluted one half was now used externally, and Rhus³ given internally.

Sept. 21st. No perceptible change, except that the lids are not as firmly united. Sleeps better. Pulse very rapid; no appetite. Advised the juice from raw beef and continued the prescription of yesterday.

Sept. 25th. Been absent from the city for past three days. On the 22d Dr. Wanstall, seeing no change in the eyes, gave Iodine³ internally and continued the chlorine water. The membrane now appears thinner, does not glue the lids together, but is slightly more extensive, with small patches on the lips and mouth. The general symptoms of appetite, sleep, etc., are better. Repeat.

Sept. 26th. The false membrane is again as thick and extensive as ever; membranous patches are also observed on the face, side of nose, lips, mouth, etc., and at the edges of the exudation, hæmorrhage takes place on the least occasion, as touch, exertion of crying, and the like. The lids are not as swollen as a few days ago, but are much harder and tightly closed. On opening them pus and a starchlike substance escapes with the tears. The conjunctiva is chemosed, covered with a fibrinous exudation, and has a pale waxy appearance. Corneæ of both eyes very hazy. Child takes more nourishment than previously. Prescribed the chlorine water pure as a local application, and Bromine³ internally.

Sept. 28th. The membrane seems to be extending though is not as thick. Conjunctiva more thickly covered with the exudation;

corneæ more opaque. Child very drowsy, feverish, but thirstless. Alcohol, one drachm to two ounces of water, as an external application, and Apis³⁰ internally.

Sept. 29th. Membrane less, but child more restless. Repeat.

Oct. 2d. Have not seen the patient since last date. Mother now reports that for two days the child has been bleeding from the various places covered with false membrane, and that "black and blue" spots have appeared on the body. To-day find hardly any exudation on the lids, which are, however, swollen, hard, and unyielding. Corneal and conjunctival changes more marked. Face swollen and of a blue color. From various points on the lids, face, and mouth, dark blood is oozing, and hæmorrhagic spots are observed beneath the integument over the whole body. No false membrane in the throat. Child pulseless, breathes hard, and is somewhat restless, starting up suddenly. Gave Lachesis³⁰, but told the mother that the child could live only a few hours.

Death took place in about six hours. A post-mortem examination could not be obtained.

Remarks.—We were compelled to treat this child as an outpatient, and probably owing to this fact and the inability of enforcing proper hygienic and dietetic measures, death was no doubt to a great extent due. There are several peculiar conditions in this case which differ from any on record, and it is on account of these that the case has been described in detail. It occurred in a child of a scrofulous diathesis, for a long time subject to pustules and ulcers on the cornea and conjunctiva. The origin, appearance, and manner of extension of the false membrane are well deserving of notice. Its first appearance was on the lids, and for several days was confined to them, extending from the lower to the upper lids and from the right eye to the left; it was entirely superficial, very tough but easily removed in one mass, leaving a raw bleeding surface, upon which it would in a short time reappear; the lids were soft and œdematous, showing that there was no deep fibrinous exudation into their tissue. Thus in the first stage we had apparently a case of croupous inflammation of the lids, but as the disease advanced, membranous patches were observed on various portions of the face and lips, though not in the eye or throat. A little later, only six days before death, the char-

acteristic exudation appeared on the conjunctiva, with firmness of the lids, and all the distinctive marks of diphtheritic conjunctivitis. From this time until death the fever, prostration, and other symptoms of the general process became more and more marked, though at no time was the pharynx or larynx invaded. The hæmorrhages observed during the last two or three days of life from all the abraded places covered with the false membrane, and at the last the hæmorrhagic spots throughout the whole body, beneath the integument, were well pronounced; these, together with the appearance of the blood, proved the destructive changes going on in the bloodvessels, and the poisoned condition of the blood from which death resulted.

NOTE.—For the above symptomatology, etiology, pathology, course, and results of croupous and diphtheritic conjunctivitis, I am greatly indebted to Græfe and Sæmisch's *Handbuch der Gesammten Augenheilkunde*.



ARTICLE XXXII.—Observations on Treatment by Compressed Air.

BY D. A. BALDWIN, M.D.

(Read before the New Jersey State Medical Association.)

AN interesting article in the last *North American Journal of Homœopathy* on "Pneumatic Treatment," suggests a few observations in my own experience, while in charge of an institution devoted to this treatment, some years since. Having in care over one hundred patients at a time, during the brief existence of this institution, I had some opportunity of observing its effects in a variety of diseases.

This method of treatment, although only of late introduced into this country, is not new to the profession. Over two centuries ago it was attempted by an English physician, Dr. Henshaw, who proposed an airtight chamber in which the air was to be con-

densed or rarefied by means of an organ bellows. In this, he says, "the patient may provide for himself such air as were not otherwise to be found but on the Peak of Teneriffe, or some other very high mountain. It may also be used for preventing the inconvenience that is often experienced from the sudden change of air by a person travelling into foreign countries, by reducing the tone of the air of any climate to that of his own country." No practical results followed this suggestion, until the use of the modern diving-bell, in which the air was condensed according to the depth to which it descended. Here it was noticed among other effects, that persons quite deaf were able to hear without difficulty while subjected to the pressure. About thirty-five years ago a series of experiments were made and published in France and Germany, giving the effects of compressed air at different densities and varying temperature. The results were so satisfactory in some forms of disease, that establishments were opened in Berlin, Leipsic, and Stuttgart, Germany, also in Paris and Lyons, France, and in Italy. More recently an institution was opened at Rochester, and later at Clifton Springs, for the purpose of developing the treatment by compressed air.

The apparatus for administering the baths consisted of a large circular chamber, about nine feet diameter and twelve feet high, comfortably furnished with easy chairs, and capable of accommodating eight or ten patients at a sitting. It is constructed of heavy iron-plate, riveted together like the boiler of a steam engine, so as to be perfectly airtight, and is lighted by small windows of heavy plate glass. The entrance is through a vestibule with two close-fitting iron doors, which can be opened without affecting the pressure in the main chamber, one at a time, like the lock on a canal.

The air is forced into this chamber from below by means of a steam-engine, working a pair of large air-pumps, communicating by a pipe opening near the bottom of the floor. From the top a pipe allows exit of the impure breathed air. Each of the pipes is provided with a screw-valve to regulate the amount of pressure to any density required, and which generally varied from eight to fifteen pounds additional pressure to the square inch. The air is first passed through purifiers containing water to free it from par-

ticles of dust or any deleterious matter, and thence into the bath. The amount of air passed through the bath is from fifty to one hundred cubic feet per minute. The temperature also of the atmosphere can be varied at will; hence the temperature of any desired climate is attainable, or even the higher heats of the Turkish or Russian bath, without their debilitating effects.

Two kinds of air-bath were used. The *tonic* at ordinary temperatures, and the hot or sweating bath. In the first patients generally remained for two hours at a sitting, inhaling the pure condensed air at any desired pressure, passing the time in reading, conversation, or games of amusement. In the hot bath, a moderately high temperature, 95° to 98° Fahr., with additional pressure of fifteen or twenty pounds to the square inch, produced the most thorough and efficient sweating ever witnessed from any process, the perspiration rolling off upon the floor. Nor does it weaken as might be anticipated, owing probably to the unusual amount of oxygen passing through the bath. By peculiar appliances the air in the upper part of the room is cooler than in the lower, thus keeping the head cool and the extremities warm. Such a process would seem to be especially adapted to cases of rheumatism, catarrhs, and acute febrile action. And such proved to be the case.

On first entering the bath, as the atmospheric pressure increases, a disagreeable feeling of pressure upon the membrana tympani is experienced, amounting in some instances to real pain, unless the air is admitted very gradually. This continues until the maximum of pressure is attained, and ceases when the air is suffered to remain at the same density. Usually these effects are present only during the first bath. As the pressure is diminished the air is felt to escape through the Eustachian tube, and the sense of fulness and deafness passes off. In some cases of occlusion, the air-bath has all the effects of catheterization of the Eustachian tube, and produced immediate relief of deafness. Deafness was always relieved while in the bath.

The physiological phenomena varied in some respects in the two baths. The tonic cold bath was more suitable in debilitated cases, nervous prostration, etc., where the sweating bath would have been positively injurious, as also in developed phthisis with hectic fever

or hæmorrhage. Like ordinary tonics it gives volume and vigor to the pulse, reducing it rapidly in debilitated subjects, just as we see the pulse reduced by stimulus in exhaustion. In some cases of phthisis I have seen the pulse reduced from 110 to 92 in four hours continued treatment, and in emphysema the reduction was still greater. The effect upon the respiration is most marked. It is always freer, and a striking peculiarity is the length of time the breath can be retained, frequently between one and two minutes.

In cases of chronic tubercular phthisis, emphysema, and especially asthma, the difficulty of breathing is relieved in the most marked manner. The breathing becomes calm and regular, due not only to the increased quantity of oxygen inspired, but because the amount absorbed is in proportion to the pressure against the walls of the air-vesicles. Thus the increased absorption of oxygen and excretion of carbonic acid enable the lungs to perform their functions more efficiently; thereby removing any congestions that may exist, and imparting renewed vigor and tone to the entire structure of the lungs and bronchial vessels; and this too is assisted by the mechanical pressure of the air upon the internal membranes. It was found therefore beneficial in congestions generally by its power to equalize the circulation.

It acted favorably also in most forms of nervous disease, as neuralgia, nervous prostration, sleeplessness, nervous dyspepsia, and chorea.

Three or four cases of mental aberration (all females), and dependent probably on uterine sympathetic action, were promptly relieved.

Its action upon the uterine organs was peculiar. It would restore the menstrual function when delayed or suppressed, but would not disturb or increase it when normally present.

It apparently aggravated and even reproduced prolapsus uteri and leucorrhœa, as also bleeding hæmorrhoids.

The hot-air bath cut short promptly fever and ague whether recent or chronic, administered just in commencement of the cold stage. But its most striking benefits were seen in rheumatism. Very few cases resisted its beneficial influence.

To sum up the action of compressed air in treatment of disease,

so far as it came under my own observation, its chief benefits were in equalizing the circulation, and therefore in congestions generally, especially of lungs and liver, nervous diseases, neuralgia, nervous prostration, particularly in form of "brain fag," sleeplessness, chorea, and epilepsy; for incipient lung disease, bronchial and nasal catarrh, and especially for asthma, rheumatism, acute and chronic; for delayed and scanty menses, constipation; also some acute diseases, as malarial fevers and inflammatory affections, sub-acute.

Dr. Armstrong, of England, speaking of this treatment, says, "It is one of the most powerful means I know of for the removal of common congestive fever. It does not fatigue the patient as in the use of the water-bath, and in about half an hour will bring pounds of blood to the surface of the body, which were previously suffocating some internal organ; it will produce a general perspiration, in short it will restore the balance of the circulation sooner than any other means I know of."

Dr. Beitin, of Paris, says, "Under the influence of a pressure carried sufficiently high, permanent congestions of the skin and mucous membranes in contact with the air are found to yield. The dissipation of such congestions is not liable to be followed by metastasis."

"Respiration in compressed air, as it brings the blood in contact with a larger quantity of the atmosphere in the same volume, ought to decarbonize a greater portion of blood than under ordinary atmospheric pressure. Under the influence of the compressed air-bath the respiration improves, the blood becomes more fit for nutrition, and gets rid more rapidly of its effete particles. The circulation becoming more calm and normal, the blood is conveyed in proper proportions to all parts of the body. At the same time the appetite increases, the digestive functions become more regular, the nutrition is increased, and the strength restored. Congestions, acute and chronic, are dispersed, the capillary circulation becomes more regular, the respiration and arterial circulation slower."

He cites thirty-five cases of various diseases of the respiratory system, acute and chronic catarrhs, pulmonary emphysema, asthma,

hæmoptysis, and phthisis, in which all obtained relief, some permanent cure.

Riegel and Hertz, in Ziemssen's *Cyclopædia*, regard the use of compressed and rarefied air as of the greatest value in pulmonary emphysema, bronchial catarrh, and bronchitis, and recommend an improved apparatus devised by Waldenburg for its application, a full description of which is given in the editor's note.

The opinion I have formed from my own observation is, that the treatment by compressed air is undoubtedly valuable in pulmonary, rheumatic, catarrhal, and neuralgic affections, and that it is a valuable adjunct to other remedial processes; but that the classes of disease are quite limited in which it would by itself prove curative in a greater degree than by other known agents.

That it is positively injurious in some cases, and requires to be used carefully and judiciously in all. Probably later and improved methods of application will give better results.

ARTICLE XXXIII.—Moral Insanity.

BY DR. MENDEL.

DR. MENDEL, in a lecture delivered before the Hufeland Society of Berlin, credits Pinel as the first alienist who described a *mania sine delirio*, and that in such cases the will power is out of order. Grohmann (Nasse's *Zeitschrift für Psychische Aerzte*, 1818) recognizes a moral disorganization, and divides it into moral imbecility, brutality of the will, and moral idiocy. Prichard gives us the first symptomatology of the disease, which he named "moral insanity." He defines it as a morbid change of the natural feelings, affections, habits, of all moral tendencies and inclinations, without any clear change or defect in thinking and judging, and especially without any illusions or hallucinations. Maudsley in England and Morel in France became strong converts to this doctrine. Zeller in Germany acknowledges the disease, with the proviso that in every case a certain weakness of intelligence, mild imbecility must be shown. Krafft-Ebing considers moral insanity a mental degeneration.

Symptomatology.—Moral insanity is a morbid alteration of the natural, æsthetic, and moral feelings, producing secondarily a morbid change in our inclinations and passions. Hallucinations and illusions are always absent. Intelligence is somewhat weakened but may not be a prominent symptom. Frequent facts prove that in diseases of the brain our natural feelings, inclinations, and affections may become changed, and this change may remain for a long time the only characteristic symptom. We remind you only of those frequent cases of epilepsy in children, where during the intervals between the epileptic paroxysms the intelligence was at first apparently not disturbed, but gradually a change comes over them, so that they become really ill-mannered. They are given to lying, playing tricks, become malicious and destructive. Moral insanity has developed itself on this foundation of epilepsy, leading eventually to epileptic imbecility and dementia. *Pro re nata* you meet in older persons an inclination to tramp; these vagabonds beg, steal, and in their destructive maliciousness no crime is too horrid for them. Similar symptoms may be observed from any neurosis having its seat in the central nervous system. Such a transitory destructive tendency is very frequently observed in chorea, and many an hysterical mental disturbance begins in this manner. More frequently still we find such states in chronic cerebral intoxications, especially in chronic alcohol intoxication; the patient attends to his business, the intelligence is not yet visibly weakened, there are neither delusions nor hallucinations, but a desire to street brawls, fights, to a disregard of all decency in public as well as in private, characterizes even at that stage the beginning of a deepseated mental disease. Severe organic cerebral diseases show often in their prodromal stage the symptoms of moral insanity, or they may appear during a remission, and such an explosion has even been witnessed before health was restored. The deliria of dementia paralytica always show such a state at a time when hardly any other symptom of the disease made itself manifest.

Patients after an apoplexia cerebri sanguinea often display similar changes in their character, which sometimes outlast the hemiplegia. Equally well known and described are such states at the beginning of senile involution of the brain, and sexual excesses are

not rare in old people from the same cause. In periodical mania as well as in the *folie circulaire* such morbid affections are frequently observed during the stage of excitement.

Moral insanity may also be congenital or acquired. Congenital moral insanity appears exclusively in persons with an hereditary tendency to alienation and severe neurosis. We meet here with the abnormal mental faculties a whole series of malformations and other bodily ailments. Frequent attacks of headaches, of vertigo, general convulsions or spasms limited only to certain groups of muscles, with or without consciousness, diminished sensibility. The cranium may be found deformed, one side larger than the other, defective development of the occipital bone, retraction of the frontal bone, protrusion of the mandibula, irregularities in the arrangement of the teeth, adhesion of the lobes of the ear, harelips, clubfeet, etc., etc. With their evil inclinations they never progress much in school, and in spite of their good memory their positive gain is little or nothing. They play the truant in school, and when of age loafing is their pleasure. Oh, how often do we find such cases in the workhouse, in the penitentiary and prison! Even there they remain stubborn, unyielding to all discipline, and insensible to all lawful punishment. Are they subjects for the prison, or ought they to be kindly cared for in an asylum? A weighty question and still undecided. This congenital form may develop itself fully at the time of puberty in connection with onanism. Sexual nisus is frequently very early developed in such patients. Thus Mark mentions a child of four years given to this vice, and suffering from moral insanity.

The *acquired form* may appear at any age and from the most diverse causes. Injuries of the head, weakening influences, too many parturitions quickly following one another, exhausting acute diseases, excesses in Baccho and Venere, frequently cause mental diseases, even where there is no hereditary disposition. Wigand reports an interesting case: A boy is struck on the head with a ruler, in consequence of which a total change in his moral feelings sets in. Trepanation is performed at the seat of the injury, a splinter removed, and the boy restored to health.

In all such cases there is a certain weakness of intellect, more in the congenital than in the acquired form, and education meets diffi-

culties everywhere. They do not understand the moral wrongs which they inflict on themselves as well as on others.

What position does moral insanity hold in the nosological system of psychiatrics? Some call it affective insanity (Maudsley, Zeller); Krafft-Ebing, mental degeneration. If we accept two qualities of the mind, feeling and thinking, our disease belongs to the affections of the feelings. Taking an analogy from the pathology of the peripheric nerves we would distinguish between hyperæsthesia, paræsthesia, and anæsthesia. The first gives us essentially the picture of melancholia, the latter the idiotism of the feeling, whereas the paræsthesia of the feeling represents the origin of moral insanity.

The *course* of the disease is always exceedingly chronic, and may remain unchanged through a whole life. In other cases the disease appears with a certain periodicity. Even perfect intermissions may prevail between the paroxysms; in other cases we only meet clear remissions. The issue is usually unfavorable; in many cases perfect dementia develops itself, in others the patients perish of diseases caused by their excesses, and only in exceptional cases we find a cure or at least an intermission for a number of years recorded.

Prognosis in congenital cases is decidedly unfavorable, very doubtful in acquired moral insanity, although Prichard and others report some cures.

The *diagnosis* of the disease deals with the difference between wickedness and disease, and many authors deny any such difference. Bonfigli de Ferrara hopes that in future times insane people and criminals will be put on the same footing, and that lunatic asylums will take the place of prisons. It is too true that it may be difficult in some cases, nay, nearly impossible to decide whether it is disease or crime, but in most cases the anamnesis of an hereditary disposition, of the personal development, the presence of anomalies in the formation of the cranium, and of the corporeal structure in the congenital form, the proof of a noxa which caused the mental alteration, the paroxysms of headache and vertigo in the acquired form, the epileptic spasms, the mental hebetude, and especially the loss of all judgment in their transgressions and crimes, may lead us in the diagnosis of a diseased state in relation to the

mental functions of the brain. It would be very wrong to draw out a solitary symptom as of most importance, or to consider the crime as the starting-point to prove a diseased state; *only the totality of the case decides.*

We have not yet a pathological anatomy of this disease; in many cases nothing characteristic was discovered, or at least nothing differing from other mental diseases. Atrophies of the frontal convolutions, or of other parts of the brain, with more or less extensive inflammations of the membranes, were observed during the last stages.

We deal with sick people. Severe punishments, the whole apparatus of moral treatment will hardly effect any change in the gray substance, or only further its transition into atrophy. Something might be done by firmness combined with gentleness, by discipline, and by mental and bodily labor suited to every particular case. Where supervision at home is impossible, our asylums must bear the burden.—*Z. f. P. M.*, 52, 1876.

Thus we see that from a medical standpoint our case runs smoothly. Moral insanity is a cerebral disease, which may be cured in its first stages, but remains incurable as soon as pathological changes deprive the organ of its ability to perform its functions. But as soon as we come before a court the scene changes, and confusion worse confounded stares at us everywhere. In reading the reports of the Medico-Legal Society (*Journal of Nervous and Mental Diseases*, iv, 123), we find that the physicians take the right ground that there is really no such disease as partial insanity, but lawyers consider it a most dangerous revolution to accept such ruling as a guide; they find it of the utmost importance to distinguish between general and partial insanity, and fail to differentiate strictly between eccentricity and insanity. In fact in looking over the subject we perceive that the civil law is at variance with the criminal law, and that a man may be civilly incompetent, but sufficiently sane to be made criminally responsible. It may be true that in moral or partial insanity the intellectual faculties are sound and only the moral feelings perverted, and we must therefore go one step further and endeavor to study out what is insanity, under what name whatever it may appear, and can a man be sane and insane at the same time? Delusions alone are certainly not

proof enough to consider a man insane, for many a religious or political fanatic may be the subject of strong delusions; in fact all religious faith, to the believer his all in all, is based on such delusions, and although *we* may scoff at the coffin of Mahomet, or look with pity at the idolatry of the Brahmin, at Mongolian deities, or at the simple religious rites of our own aborigines, certain it is that such delusions have become part of the believer's nature, and must be excluded in the study of insanity, or else we might well ask, who is sane? But we need not go so far; look at our own spiritualistic tendencies, and is there one among you who would dare to consign a man to the lunatic asylum, because he sees and constantly converses with persons long since dead, or, if a physician, because he prescribes from second sight, and acknowledges that a good man of the spirit world aids him in relieving human sufferings? Nor are mere whims, mere eccentricities, as so often witnessed in men of genius, to be considered as symptoms of insanity, although in some persons they may show that in that one direction the balance-wheel is out of order.

Different nations make different definitions of insanity, and even in the same nation courts and judges differ widely. Voisin, in his *Leçons Cliniques*, justly lays great stress on his definition of insanity, when he says, *L'alienation ne commence que lorsque l'individu a perdu conscience de son état morbide et considéré ces hallucinations, ces impulsions isolites, ces conceptions delirantes comme des réalités et leur obéit.* Here we have two strong points; 1, the patient considers his delusions or hallucinations a reality; and 2, he has lost all will-power over himself, and he cannot resist any more his morbid impulsion. How far better is such a definition than the rule which was in force in the English courts, and, as far as I know, also in this enlightened country, that a man may be held responsible for his crime if he possesses a consciousness of right and wrong, and a knowledge of the consequences of the act, thus forgetting entirely that a lunatic has lost the power to choose the right. It must be then the duty of the experts to prove insanity where present *from other symptoms*, or to show the hollowness of the pretence with which the plea of insanity is too often set up by the defendant's lawyers, for it is just

this doctrine of "irresistible impulse" on which is usually based the defence of insanity.

Krafft-Ebing, in his *Criminal Psychology*, lays down three rules in order to find out whether insanity is present or not: 1. What is mental insanity? 2. How can we prove that the disturbance of the mental functions originates in a diseased state? 3. How far has this diseased state suspended or annihilated the control over our actions (*impuissance de la volonté qui prive l'homme de sa liberté morale*)?

1. *What is mental disease?* Mental disease is brain disease, affecting especially the gray cortical layer of the cerebral hemispheres, with prevailing perturbation of the mental functions in relation to the intellectual sphere, to the moral feelings, and to the actions emanating therefrom. *The great characteristics of psychical disease is the subjective change of the psychical individuality.* For forensic purposes there is no need to differentiate between one mental disease or another.

2. *How can we prove that the mental state is a disease?* a. The pedigree of the inculpaté according to the somatic and psychical conditions and relations of his ascendants. We inherit not only certain peculiarities of character, talents, and inclinations, but also infirmities, vices, and deformities. Such an hereditary psychopathic bias may many a time exhibit itself only as a latent predisposition, but even then its material basis can be shown by its relation to mental and alcoholic irritations. Without being yet insane, experience teaches us that such persons become easily affected, and these impressions always cause a congestive state; they are also liable to *transitory maniacal explosions with loss of consciousness* during their duration (psychical epilepsy must be differentiated from epileptic mania). The smallest quantity of alcoholic beverages intoxicates them, and this intoxication appears under the form of a *maniacal fit with delirium and unconsciousness*. In other cases the hereditary influence displays itself clearly from infancy, giving us even at that early age the picture, not of moral insanity, but only of moral depravity. At any rate hereditariness ought to lead judge and jury to a mitigating verdict, especially where the inculpaté also presents bodily infirmities, as abnormalities in the formation of the cranium, deformities of the ears, inhibitory formations

of the genital organs and extremities, squinting, stammering, deaf-mutism, etc.

b. Has the inculpate ever passed through any disease which might cause insanity, as *e. g.*, cerebral inflammations at an early age, traumatic causes and concussions of the brain, excesses in drinking, neuroses, especially epilepsy, deep mental emotions, etc., and have the psychopathic symptoms present in the case any clinical relation to the etiological cause? Here we must also lead your attention to certain periods of life which have a certain predisposition to mental diseases, as puberty in both sexes, menstruation, pregnancy puerperium, lactation, and climaxis in the woman, senility again in both sexes.

c. Mental disease is a cerebral disease, as proved by the sensory, motory, and vasomotory disturbances. Headache, sleeplessness, anæsthesia, neuralgiæ, hallucinations, and illusions may precede for a long time the state of real insanity. As motory perturbations we may witness inequality of the mimic innervation of both sides of the face, atactic and paretic disturbances in the extremities, clonic and tonic spasms either general or limited to certain groups of muscles, irregularities in speech, etc.

3. *How far has the diseased state of the brain suspended or annihilated the control over the actions of the patient or culprit?* The law justly requires proof that the psychological perturbation has annihilated the power of controlling his action, and does not allow passions, emotions, and impulses to stand as causes of suspended responsibility. Such approximate proofs are:

a. That the cerebral affection gave itself vent in *spontaneous* impressions, in passionate emotions, in delusions and hallucinations, which were the cause of the consequent action.

b. The psychological motives, from whatever cause they might have originated, are in opposition to all moral, æsthetic, and lawful principles, producing either melancholia or mania in consequence of the disturbed association of ideas or mental hebetude.

c. The consciousness of its own individuality as well as that of the outside world has been defaced by delusions and illusions. This perturbation may even reach such a degree that the individuality of the person is, as it were, changed into another one (Christ, Napoleon, Mary, etc.), so that the action is performed by

the psychologically changed person, although before the bench he remains the same individual.

Let the physician when called upon the witness-stand firmly adhere to the rules laid down by Krafft-Ebing, and he will have less trouble in convincing the court where insanity is present and where not. *The physician has nothing to do with the crime and its consequences; his only duty is a medical one.* Let us firmly hold on to the doctrine that "*irresistible impulse*" cannot be confounded with moral or partial insanity, and where such a plea is set up, let us frown it down. Just from such reasoning we see opposing doctrines upheld, and many a good authority comes to the conclusion, if irresistible impulse is only another term for moral insanity, then there is no such thing as moral insanity. As usual the truth lies between, and only by circumstantial evidence the truth or falsehood of the plea can be made out. But even give the lawyers the benefit of the doubt, and let us accept their dogma that even the irresistible, transitory impulse to commit the crime is akin to insanity, if not insanity itself, there would be no harm in it, if the insane criminal were put, as in England and Germany, in an asylum for the criminal insane, and no *habeas corpus* allowed to rescue him from the paternal treatment of a well-regulated asylum. The plea that a man was sane before the perpetration of the crime, insane during the act, and immediately sane again, will not hold good as an example of transitory mania, for in that disease unconsciousness of the act is the great characteristic; nor can we accept Brown-Séquard's proposition of the dual character of the brain. At any rate, as we cannot divide the insane hemisphere from the sane one, let the former be there as the patient and the latter as the criminal. If we only had the law that at least five years' detention in an asylum is the sequela of a successful plea of insanity, we would hear less of this much-abused plea, but at any rate let us as physicians hold fast to our rights, and we will have no trouble whatever to distinguish real from fancied insanity.

ARTICLE XXXIV.—Symptomatology of Electricity in its different Applications.

BY J. BUTLER, M.D.

MIND, SENSORIUM.

AFRAID he will suffocate. Sense of falling. Drowsiness. Loss of equilibrium, nausea. Syncope.

HEAD.

Pallor of countenance. Dizziness. Vertigo. Dazzling. Anæmia of brain. Hæmorrhage. Convulsions. Throbbing headache. Congestion of brain.

General excitement and increase of temperature. Insomnia.

EYES.

Dilatation of pupils, phosphenes. Dimness of sight. Muscæ volitantes. Paleness of conjunctiva. Protrusion of eyeball. Lancinating pain; copious secretion of tears; oval, vertical, or transverse dilatation according to direction of current. Anode causes a blue light to be seen. Cathode, reddish-yellow. Anode, objects appear less distinct. Cathode, more distinct. Anæmia of retina. Amaurosis. Halo of light often seen under influence of faradic current.

EARS.

Paleness of tympanum. Burning pain. Ringing in the ears. Roaring rushing noise, as if of wind. Noises like the bubbling of boiling oil. Tickling pricking sensation, followed by lancinating pain. Congestion of tympanum. Increased secretion of ear-wax. Musical sounds. Pressure from within outwards or from without inwards, according to direction of current or polar influence.

NOSE.

Sensation as if about to sneeze, with inability to do so. Congestion, inflammation, suppuration. Titillation. Profuse watery secretion, followed by a thicker discharge, with sense of stuffiness and fulness. Anosmia.

MOUTH, TONGUE, ETC.

Peculiar metallic taste. Profuse secretion from salivary glands. Toothache of a severe lancinating character. Twitching of tongue, numbness of tongue. Vitiating of taste, loss of taste. Tongue feels as if paralyzed. Sugar in salivary secretion.

THROAT.

Contraction of larynx, pharynx, and œsophagus. Spasm of glottis. Spasm of pharyngeal and laryngeal muscles. Congestion with afterwards profuse secretion of mucus. Visible pulsation of carotids.

STOMACH.

Pain over pit of stomach, nausea, vomiting. Indefinable sensation in region of stomach. Hiccough. Sinking feeling in pit of stomach.

ABDOMEN.

Peristaltic action of intestines cease. Pancreatic secretion increased. Muscular coat of intestines contracted and fæces voided. Pain in hypogastric region.

URINARY AND SEXUAL ORGANS.

Sugar in urine. Bladder contracts at opening and closing of circuit, less so during transmission. Pain in region of kidneys. Pain along ureters extending to kidneys. Profuse flow of urine after galvanic current. Vas deferens contracts, testes drawn up. Scrotum rugated. Burning pain through testes and cord. Penis becomes erect by transmitting a current from anus to glans penis. Spermatic cord contracted. Acute pain as if the testes were being torn from the cords.

FEMALE.

Uterus contracts both during and after transmission of current. Pain in lumbo sacral region. Profuse flow of blood lasting three or four days. Leucorrhœa, at first watery and transparent, afterwards yellow, viscid, and flaky. Congestion. Inflammation and odema of cervix.

NERVES, MOTOR AND SENSORY.

Strong current paralyzes nerve, and renders it incapable of

transmitting its contraction, producing stimulus. Nerve paralyzed by constant current. Ascending current decreases irritability of nerve throughout its whole extent; descending affects only the part operated upon. Contraction of muscles supplied by nerve at opening and closing of circuit. Pain burning as if molten metal was running through the nerve; most severe under rheophores, *galvanic current*. Pain acute, darting, lancinating under the rheophores, with anæsthesia or partial anæsthesia between the points of contact.

MUSCLES.

Burning pain. Galvanic. Contraction at opening and closing of circuit. Lame, tired feeling, numbness and paralysis. Lancinating pain, farad. Rigid cramps of all the muscles of body. Muscles of trunk and extremities thrown into convulsions, which continue for some time after breaking the circuit. Opisthotonos, Tetanus.

SKIN.

Burning sensation. Hyperæmia and hyperæsthesia. Increase of temperature. Herpetic and eczematous eruptions.

Tingling elevation of the papillæ; acute darting pain under points of contact, with partial anæsthesia between these points. Congestion and redness of skin, most marked under secondary induced current. Itching, coming on eight or ten hours after application. Acne of back and shoulders has in several cases followed faradization of spine.

CHEST.

Indefinable præcordial sensation with sense of suffocation. Heart's actions retarded. Smooth muscular fibres of bronchi contract. Inspiratory movements accelerated to tetanic inspiration. Spasmodic breathing and cough. Diaphragm permanently contracted during transmission of current. Constrictive pain all through region of chest. Frequency of respiration increased. Sobbing. Hiccough. Profuse perspiration in axillæ.

BACK.

Tetanization of sacro-spinal muscles. Opisthotonos.

ARTICLE XXXV.—The Vaso-Motor Apparatus.

BY I. S. P. LORD, M.D.

(Continued from page 334.)

IN congestion of the intestinal mucous membrane it would moderate the abnormal excitation of the vaso-dilators, by lessening and regulating the action of the neurine cells of the ganglions, through the agency of which, according to our author, the vaso-dilators act upon the vaso-constrictors. The vaso-dilators can act on the vaso-constrictors only by disturbing the ganglionic cells which bring the two orders of nerves into functional relations, and, of course, anything that will regulate the disordered condition of these cells would arrest the action of the dilators, and the constrictor nerves would at once resume their functions, and the vessels contract.

We may, then, assume that Opium will cure some diarrhœas; and one need not be surprised to learn that any one of a large number of drugs, with various properties, might cure an intestinal congestion or stop a diarrhœa under certain circumstances, but only a few would do it directly and specifically. Arsenic as well as Opium acts on the intestinal ganglionic cells, and probably in a similar manner.

From a rationalistic standpoint, it is difficult to see how an inflammation cures a simple "excitation or irritation," or the "happy results" to follow the substitution of the greater for the less disease, a structural for a functional, or the beauties of a therapeutic system which puts forth such a subtle, scientific refinement of a vulgar antediluvian doctrine as that of *substitution*.

Our author was thinking of something else when he wrote that.

"We come now to examine the vaso-motor phenomena which occur in the kidneys." The secretion of urine is produced, without doubt, under the influence of two principal physiological factors: 1st, the functional work of the renal epithelium; 2d, the pressure of the blood in the capillaries. The first is by far the most important, as it separates from the blood the water and various soluble substances.

It is hardly necessary to say that urea and uric acid pre-exist

in the blood, and pass into the urine by the simple process of dialysis or separation. Nor do we propose to inquire if the production of urine is a true secretory process. It is manifest, however, that modifications of the circulation will greatly affect the quantity of urine produced in a given time.

These modifying causes are numerous. Perhaps the most important are "the influence of the ingesta and modifications of the sweat and pulmonary and cutaneous exhalations."

These causes not only interfere with the constitution and quantity of the blood, but also very likely incite, or give rise to vaso-constrictor and vaso-dilator phenomena.

Among the ingesta, alcohol, in moderate doses, may provoke a certain degree of diuresis. Now, it is easy to see, that, in traversing the kidneys, it would irritate the anatomical elements that secrete the urine. This irritation would occasion vascular and secretory reflex actions through the intervention of the vaso-dilator and vaso-secretor nerves of the kidneys.

"I believe that this view of it is more correct than that of authors who hold that the suractivity of the renal functions, provoked by alcohol, is due to an action of this substance on the nerve-centres." And what is true of alcohol, probably applies also to a great number of reputed diuretics, though not to all. Probably the action of digitalis is by another mechanism.

But we pass this for the present, to occupy ourselves with the various experimental influences brought to act through the intervention of the vaso-motor nerves.

The renal nerves spring from two sources. Many of the fibres are from the grand splanchnic through the intermediation of the solar plexus. According to Claude Bernard, a certain number of fibres are furnished by the little splanchnic, and follow the vessels directly to the kidneys. It would appear that some come from the ganglions of the solar plexus, and have no relations with the great or little splanchnics; for our author found in a dog, some days after a section of a pneumogastric nerve at the neck, a nerve fillet which penetrated the kidneys, presenting all the pathological characters which appear in a nerve separated from its topical centre. Hence one might conclude that it sprang from the cut pneumogastric.

The renal nerves are quite numerous, and composed mostly of fibres of Remak. Experiments on these nerves have not been numerous. Krimer saw, after section of the renal nerves, albumen in the urine, and the quantity of coloring matter was much greater than in a normal state. J. Müller and Peipers made some experiments in reference to the influence of these nerves on the kidneys. They tied the renal vessels, taking care not to include the ureters, and in this way destroyed all the nerves accompanying the vessels. The ligature was then removed, and the blood allowed to again flow into the kidneys. The renal secretion was not re-established, except in a single instance, in one animal, a sheep. The urine, in this case, was bloody. The experiments were followed by ramollissement of the renal tissue. These experimenters knew not of the existence of vaso-motor nerves.

Müller believed these nerves to be secretors, and that their special function was to stimulate the action of the glandular portion of the kidneys.

A little reflection on their manner of performing their experiments ought to convince one that the ramollissement was not the result of the destruction of the nerves. It was most likely due to disturbance of the circulation, caused by the transient ligation of the vessels.

Marchand repeated the experiment some years later. He showed, in particular, that a section of the renal nerves was followed by an increase of urea in the blood.

More recently M. Armand Moreau has obtained results quite analogous to those which Müller and Peipers published. On the other hand M. Best, after removing all the renal nerves, and even scraping the outer surface of the renal artery so as to destroy any nerve fillets that might accompany it, found that the corresponding kidney was not changed. M. Ranvier did not discover any destruction or softening of the kidney after section of the nerves, and Brown-Séguard saw only a slight congestion. Our author operated with great care, removing every nerve fillet that he could perceive between the artery and vein, and around and on the coats of the vessels, and he saw neither sphacelus nor ramollissement. He thinks that all such results are accidental and due to the in-

jury done to the renal vessels, and violent handling of the surrounding parts. In Claude Bernard's experiment on a rabbit there was no change of the color of the blood in the renal vein. But galvanization of the renal nerves slightly changed its color, and the flow of the urine was suspended during the operation. The section of the nerve made the kidney shine, and caused strong pulsations in it, and the *urine was more abundant when the animal struggled*. In another case of section of the renal nerves the urine was bloody on the corresponding side. Our author experimented with similar results.

After a section he has seen the corresponding kidney become more red than the other; and when the nerves were electrized it became paler than the other kidney; but in the meantime the calibre of the artery and that of the vein was diminished. The current, however, might have acted directly on the vessels and not by intermediation of the renal nerves.

Bernard cut the splanchnic nerve in a dog, and the urine began at once to flow, though it did not previously, but it was bloody. Galvanization of the peripheral end of the splanchnic nerve (or the end in relation with the solar plexus), caused a lively pain. The animal struggled and the flow ceased. This arrest of the flow was due to the electrization of the nerve and not to the struggles of the animal, for in previous experiments the movements of the animal had increased the flow.

In another experiment he opened the abdomen of a rabbit and introduced a tube in the usual way into the left ureter. He found the kidney and renal vein red, and no flow of urine. Section of the grand splanchnic diminished the calibre of the renal vein, and meantime the blood became black. Operated on the right side with the same result.

"Claude Bernard made some experiments on the physiological relations which may exist between the pneumogastric nerves and the kidneys. In dogs, galvanization of these nerves did not seem to have any effect either on the renal circulation or urinary secretion. The results were different in rabbits. In them galvanization of the pneumogastriacs, near the level of the heart, caused an immediate change of the color of the blood in the renal vein. This blood, which had become black in consequence of a section

of the grand splanchnic, recovered its red tint when the pneumogastric nerve of the corresponding side was galvanized, and in the meantime the vein was notably enlarged."

"In experiments which I made," says our author, "on the pneumogastrics in a rabbit, I have not succeeded in seeing those effects which I have told you were observed by Bernard." But in regard to the splanchnic nerves he not only observed effects analogous to those described by that physiologist, but he believes them to be clear, constant, and perfectly satisfactory.

Before drawing any conclusions from our premises it may be well to refer to experiments that have been made in Germany during the last few years.

Mr. Eckhard, many years ago, had remarked that unilateral hydruria, caused by section of the splanchnic nerve, appeared to have a paralytic character, and that it differed from the glycosuria caused by a prick of the floor of the fourth ventricle.

In this last case it would be, according to Eckhard, the effect of simple renal irritation, which would disappear in a few hours, whilst that from section of the nerve would be persistent.

M. Knoll found the quantity of urine greatly increased after section of the splanchnic nerves, but the specific gravity decreased in proportion to the increase in quantity. There was, however, an actual increase of the solid matter, particularly the urea, in a given time, and this increase of the urea was proportionally greater than that of the urine. He saw albumen in the urine, but did not attribute it to the section of the nerve, as it sometimes appeared in the course of the operation, previous to the section of the nerves. Our author repeated Knoll's experiment on a rabbit and also on a dog. There was increased redness of the kidney and of the blood in the renal vein on the side of the section, in both animals, but in the dog it was much greater, with very manifest congestion and swelling, while the capsule was injected with blood.

Electrization of the peripheral end of the cut nerve caused pain, if the animal had not been previously curarized, and after a little the kidney became paler and paler. On withdrawing the current, the paleness continued a short time, and then the redness gradually reappeared, at first in patches, which gradually coalesced until the redness became uniform.

This process was frequently repeated with the same result. The calibre of the vein was uniformly diminished, and the blood in it darker than normal; but when the blood returned, and refilled the contracted vessels, it was bright red, and the vein became greatly distended.

When death occurs three or four hours after the section, an incision into the kidney of that side is followed by a much more abundant flow of blood than an incision in the other kidney. An increased secretion of urine follows a section of the nerve, and it may be strongly albuminous.

The microscope detected neither hyaline cylinders, nor renal tubular epithelium, nor blood-corpuscles. There were fatty granules, but the urine of a dog always contains those. In a curarized dog a tube was introduced into the left ureter, and then the pneumogastrics were successively faradized, first one and then the other. There was no change in the flow of the urine or color of the left kidney. Electrization of the central end of the sciatic nerves did not modify the renal circulation or secretion of the urine.

“So we see that section of the grand splanchnic nerve in a dog, causes an intense vaso-paralytic congestion of the corresponding kidney, with polyuria and albuminuria;” and there may even be blood in the urine.

But, setting this last result aside, “the production of an albuminuria, without hæmaturia, under the influence of a lesion of nerves destined to the kidneys, is a very interesting fact, which appears to me to be due to a section of the splanchnic nerve, and which shows the possibility of an albuminuria through disturbances of vaso-motor innervation, without any actual alteration of the renal tissue;” in other words a purely functional disorder.

“On the other hand electrization of the splanchnic nerve arrests the secretion of urine, with paleness of the kidney, constriction of its vessels, change of color of the blood in the veins, etc.” “The splanchnic nerves contain then a part at least of the vaso-constrictors of the kidneys.” Probably the anuria which sometimes attends nephritic colic is caused by these nerves. The mechanism of its production is probably that indicated by Brown-Séguard, to wit, “Under the influence of a lively excitation produced by calculi

on the internal or mucous membrane of the kidney, or that of the ureter, a reflex vaso-motor action takes place through the renal vaso-constrictor nerves contained in the grand splanchnic. The vessels of the kidneys contract [under this excitation]; the circulation becomes much less active, and the secretion of urine, in consequence, notably diminished, or even suspended."

Of the vaso-dilators very little is known. In Claude Bernard's experiment on a rabbit, we have seen that, when the pneumogastric was cut above the diaphragm and its peripheral end electrized, there was an increase of the urinary secretion, and at the same time the renal vein was swollen, and its blood redder than in a normal state.

If similar results followed the experiment in all the mammiferæ, it might be admitted as evidence that the pneumogastrics contained vaso-dilator nerves destined to the kidneys. But it is not so, and even in rabbits the results vary.

"I have," says our author, "faradized, in a rabbit, with medium and also very intense currents, the pneumogastric nerve, on a level with the inferior part of the œsophagus, above the point where it is turned towards the solar plexus." No change of any kind was produced in the kidneys or renal vein.

Repeated trials yielded only negative results, and yet the pneumogastric nerve was uninjured by the preliminary operation; for though faradization of its peripheral end had no appreciable effect on the kidneys, it did provoke very considerable movements of the small intestine—movements which might be suspended by faradizing the peripheral end of the splanchnic nerve of the same side. And these movements might be revived or arrested at the will of the operator.

In dogs, neither section nor electrization of the pneumogastric produces any apparent effect on the renal circulation or urinary secretion.

So then the pneumogastrics in dogs, even above the diaphragm, do not seem to contain vaso-motor nerve-fibres acting on the renal circulation; nor excito-secretory nerves having a direct influence on the functional action of the secretory elements of the kidneys. The vaso-dilators, like the constrictors, are probably contained in the splanchnic nerves, but they are, doubtless, much less numer-

ous. Admitting this, it is easy to comprehend how electrization of the peripheral end of the cut splanchnic, acting thus on the two orders of nerves included in it, may determine anæmia of the kidney.

This would be for the kidney an arrangement analogous to that which is provided for the intestine. The splanchnics unquestionably contain vaso-dilator fibres destined to the intestine, since it is by them, as you have seen, that the dilatation of the vessels of the intestine is produced, which dilatation results from the putting into a state of activity the depressor nerve of Ludwig and Cyon.

You know, in short, that after section of the splanchnics one can no longer provoke this vascular dilatation by exciting the central end of the cut depressor nerve. So that, while these experimental facts unquestionably demonstrate the presence of intestinal vaso-dilator fibres in the splanchnics, it is none the less true that by operating on the splanchnics themselves one obtains totally different effects. Section of these nerves determines a dilatation of the intestinal vessels, while electrization of their peripheral ends causes constriction of the same vessels.

It amounts to just this, that the splanchnic nerves contain both vaso-dilator and vaso-constrictor fibres for the intestine. Now the constrictors are so much more numerous than the dilators that when one acts directly on the splanchnic nerves only the vaso-constrictor phenomena are obtained. The dilator action is overpowered.

“It is quite natural to think that a section of the superior part of the fundamental cord of the great sympathetic in the thorax, and above the point of origin of the splanchnics, would furnish us with an influence analogous to that which we have observed as emanating from these nerves, inasmuch as in this region [*i. e.*, above the origin of the splanchnics], the cord contains, in whole or in part, according to the exact location of the section, the nerve-fibres destined to form the grand splanchnic nerve. This anatomical arrangement enables us to foresee the result of such an experiment.”

If the thoracic sympathetic cord is cut or electrized above the point of origin of the nerve fillets that go to make up the splanchnic-

tics, the same phenomena occur as when one cuts or electrizes the splanchnics themselves. According to Eckhard the effect on the kidney is as certain when the excitation is made on either of the two superior thoracic ganglions, or on the inferior cervical. "One may also provoke, according to him, by cutting or irritating the ganglions, a polyuria more or less abundant, with or without glycosuria."

Effects entirely similar occur when the roots of the last cervical or the first thoracic nerves are cut. "All these experiments concur in this, that it is through the intermediation of the sympathetic that the cerebro-spinal nerve-centres act on the circulation and functions of the kidneys. Now what is the part of the cerebro-spinal nerve-centres which exercise an absolutely special influence on the kidneys? We are able to localize it through the experiments of Claude Bernard.

"He showed that certain lesions, a prick, for example, at some point of the floor of the fourth ventricle, might cause a simple polyuria," and that lesions of the space located between the origin of the pneumogastric and that of the auditory nerve, caused both polyuria and glycosuria.

"If the experimental lesion is made immediately behind the origin of the auditory nerves, one observes only a simple polyuria. If the floor of the ventricle is wounded in front of the origin of the auditory nerves, there is polyuria and glycosuria, but less marked, and there may be a certain degree of albuminuria. Now these results are not always as distinct as Claude Bernard indicated, but it is incontestable that polyuria, with or without sugar, may be procured by making experimental lesions in the floor of the fourth ventricle."

Claude Bernard has seen not only an albuminuria, or glycosuria, or polyuria following these lesions, but sometimes two, and even all three at a time. He has also observed other and very important changes in the urine in these conditions.

In rabbits the urine became clear and acid, whereas it is normally turbid and alkaline; and there seems to be an increase of the phosphates. Passing this, for the present, we observe that the polyuria is due to the associated action of two factors,—an excita-

tion of the vaso-dilator fibres of the kidneys, and an irritation of the secretor nerves.

All lesions which cause polyuria in man, by disturbing his nervous system in any way whatever, probably act on the kidneys by means of a reflex arc, which passes by this point of the nerve-centres, to wit, the floor of the fourth ventricle; and perhaps it is so even when the lesion is seated in the spinal cord, as in Stanley's patient, where a fracture of the fifth and sixth dorsal vertebræ, with displacement completely severing the spinal cord, was followed on the fifth day by a very decided and persistent polyuria with ammoniacal urine.

Our author, however, thinks that the polyuria should not, unreservedly, be attributed to the paralysis of the parts below the fracture, as it is quite possible that the renal secretion has received a reflex excitation, having for its starting-point the irritation at the lower end of the upper portion of the severed cord. This irritation would be transmitted upward to the medulla oblongata, and thence sent down through the grand sympathetic, or more precisely, through the grand splanchnic to the kidneys. It is quite possible that this is the mechanism of most cases of traumatic polyuria. The seat of the lesion, however, may be greatly varied; for example, contusions in the region of the liver, or of the kidneys. It is impossible to account for the polyuria supervening in such cases, except we admit that an irritation from the part has passed the medulla oblongata, and been reflected towards the kidneys. Such are also cases of concussion of the spine from heavy falls, and of the brain from violent blows. These last are transmitted almost directly to the medulla.

Polyuria is associated with most alterations of the floor of the fourth ventricle. Tumors of the cerebellum, or tubercula quadrigemina, or of the floor of the fourth ventricle itself, may cause polyuria accompanied ordinarily with glycosuria.

In a case of apoplexy, with loss of consciousness, the distended bladder was emptied by a catheter, and the urine contained albumen and sugar. A few hours after it had to be drawn off again, and was still albuminous and saccharine.

Autopsy revealed hæmorrhage in the right hemisphere, and little apoplectic spots or patches under the floor of the fourth ven-

tricle. This man might have been diabetic, but the lesions were quite sufficient to account for the phenomena observed while he lived. In fact, the diagnosis of this case was, "*Probable lesion of the floor of the fourth ventricle.*"

In all these pathological cases, modifications of the renal circulation take place analogous to those which follow section of the splanchnic nerve. Possibly the renal congestion might be pushed so far as to cause hæmaturia.

M. Schiff, long ago, showed that wounds of the cerebral peduncles in a rabbit modified the urine. It might become acid, though normally alkaline, and might also contain albumen. Longet states that this result followed three different lesions of the nervous system; and it was particularly observed after intracranial section of the trigeminal nerve.

"The nerve-centres, either directly, or indirectly by reflex action, certainly exert a powerful influence on the vaso-motor nerves." But they may also act, without doubt, on the function of the kidneys by the intervention of the secretory nerves of these organs—nerves which we can only suppose to exist, inasmuch as we cannot demonstrate it. We shall supplement our remarks on polyuria when we come to speak of the influence of the nervous system on the production of glycosuria.

The action of the vaso-motor nerves on the kidneys enables us to explain the mechanism of other disordered conditions. We have already alluded to what occurred from the irritation of renal calculi; that they might suspend the urinary secretion in whatever part of the upper urinary passages or cavities they happen to be lodged. But the most remarkable thing is that the secretion may be arrested in both kidneys when there are calculi only on one side.

"This arrest of the urinary secretion can only be explained by the phenomenon of reflex action. We must admit, either a reflex action modifying the renal cells which secrete the urine, and determining a suspension more or less prolonged of their activity, or else a reflex excitation of the vaso-constrictor fibres of the kidneys, with obliteration of the vessels more or less complete, and of course interruption of the renal function." [For if there is no blood in the vessels there can be no secretion.]

However secondary this last mechanism may be, there is little doubt that it comes in play at this time. The result, doubtless, is produced by a reflex mechanism, similar to what we obtain directly by faradizing the peripheral end of the cut splanchnic nerve. The centrifugal irritation which provokes this reflex action bearing upon the cells and vessels of the renal tissue, might be limited to an excitation of the ganglionic region of the great sympathetic and that of the spinal cord, which give origin to the secretor nerve-fibres and vaso-constrictors of the affected kidney; or indeed, if the irritation is very lively, it might not be so restrained. It might be propagated to homologous parts of the nerve-centres, which give origin to the secretor and vaso-constrictor nerve-fibres destined to the other kidney, and determine in that organ the same effects as the immediate presence of the calculi caused in the other.

To determine if local irritation would provoke vascular phenomena of this kind, an electrode was introduced into the ureter and another placed outside of it.

But such electrization produced no such effect; and we need not be surprised, for there is quite a difference between the excitation of a diffusive electric current, and the local and definite irritation of a calculus.

Any irritation of the renal cavities which would cause the phenomena of nephritic colic, or renal neuralgia, might arrest the urinary secretion by reflex excitation of the secretor and vaso-motor nerves of the kidneys.

By the same kind of mechanism we may account for the production of anuria in certain cases of hysteria. M. T. Laycock seems to have been the first physician who admitted, as a pathological reality, a suppression of urine in hysterical patients. It was regarded by most as one of the many deceptions practiced by such patients; for it was known that they sometimes went so far as to swallow their own urine; when they could not conceal it in any other way, to the end that the physician might think that none was secreted by the kidneys. M. Charcot published a case in which there was anuria, sometimes complete and sometimes incomplete (oliguria), persisting several months.

A short time after the anuria appeared, copious and repeated

vomitings occurred suddenly. For several months only about the fifth of an ounce a day was obtained by the use of a catheter, and a trifle more than three grains of urea was found in the matter vomited. There was intense tonic spasm of the arms and legs, rendering them inflexible and immovable, and in such a condition there was little chance of her deceiving her physician. Still she was closely watched to exclude the possibility of error, from her swallowing her own urine or that of any other person. "For," says our author, "it is well known what cunning hysterical patients display in order to deceive, especially when they suppose that they can thus provoke the astonishment, or excite the curiosity of their attendants, or still farther when they have some interest to subserve. The anuria having returned after a period of remission, she was, with her own consent put into a strait-jacket for several hours."

The results were the same, anuria and vomiting of urea. He cites two similar cases. A transient anuria is a quite frequent phenomenon in hysteria, but without vomiting. Indeed, we often see a true anuria followed by a copious diuresis.

Hysteric patients with anuria and vomiting of urea are, up to a certain point, in the same condition as dogs in which both kidneys have been extirpated. We know, from Claude Bernard, that these animals are soon taken with vomiting, and in the matter vomited carbonate of ammonia is found, proving the decomposition of urea. In these animals the anuria is of course complete, and uræmia is not slow to appear, while in hysteric anuria there is always a little urine at least secreted, enough probably to prevent uræmia. Besides, as M. Charcot has remarked, a comparative analysis of the blood, the urine, and the vomit showed that there was less urea formed under such conditions, and still more, any considerable accumulation is prevented by the supplementary excretion of the urea by vomiting.

In dogs treated as in Remak's experiments this outlet is soon closed. And now, how are we to explain hysteric anuria? In the first place it is evident that it is through a disturbance of the renal nerve apparatus. Claude Bernard has seen the urinary secretion cease for an hour or two after opening the abdomen and inserting tubes into the ureters. This result is no doubt due to a vaso-constrictor influence on the kidney through a reflex action

from the ureter, as we have seen from the presence of a calculus. It is quite possible, also, that it causes a functional disturbance of the renal secretory cells, a sort of arrest of their physiological work.

On the other hand, as we have seen, there has been noticed suppression of urine in rabbits after cauterization of the floor of the fourth ventricle, or section of the restiform bodies, or transverse division of the spinal cord towards the lower part of the neck. So we see that lesions in these regions may suspend, for a longer or shorter time, the excretion of urine by the kidneys.

“But it is easy to cite experiments showing in a still clearer manner the influence of the nervous system on the urinary secretion.”

If one cuts the ureters at some distance from the kidneys, and then introduces a tube into each of the upper or renal segments, and finally electrizes the peripheral end of one of the grand splanchnics, at the moment when there is no doubt that the secretion of urine is taking place, one may see that the kidney of that side becomes gradually paler, and that the flow of urine soon ceases entirely. It seems then that the arrest of the renal secretion is due to the excitation of the vaso-constrictor nerves of the kidney, and consequent diminution of the circulating blood. May not the anuria of hysterics be caused by a mechanism more or less analogous to this? “Is it not fair to assume that vaso-constrictor excitation of the splanchnic nerves may persist during days and weeks or even months,” when it is well known that excitation of the nerves will hold the muscles in a state of contraction, and render the flexed or extended limbs rigid for a much longer time?

There is, in fact, no reason, so far as we know, why a contraction of the muscle fibres of the middle coats of the renal vessels should not persist as long as that of the legs, or arms, or neck, or spine.

A very interesting case, illustrative of some of the preceding facts, came under our notice a few years ago. We give the whole as taken down in short-hand from the mouth of her mother and herself, because it will give a better idea of the true nature of the disease than any mere synopsis.

1872, February 21st, Miss E. A., age 28. “Been sick, up and down, more than a year. Was first taken bad after a fright from seeing a man in a fit; had one herself; never been well since.

Overdid after that and got another fright and took cold. Since that has had turns of staring, and becomes unconscious. Sometimes for ten minutes she will stare, and then she will become rigid all over, and after that has spasms and froths at the mouth and comes to again. No menses in ten months.

“Has hæmorrhage from the mouth and nose at times, the last being very bright blood, scarlet. Sometimes is all drawn up into a knot. From birth till she was eight years old was subject to fits from any excitement. Last night had a fit; lay for five hours with her knees against her shoulders and head between them [the knees].

“Always had some cough from infancy; is very hoarse; voice and cough is husky. Pulse 120. For five weeks at one time was unable to move her legs. Every afternoon has heat. Sometimes cries out that there is a snake coming up the spine to the head, and sometimes by rubbing it [the spine] well, it goes down, but if it gets up to the head she has a fit.

“At one time had turns of complaining of a sawing, sawing, sawing in the head, and grinding, and will turn as if turning a crank, the shaft of which ran through the right ear; has lasted by turns a whole day at a time. Respiration thirty (30). Sometimes the legs and arms will be drawn up and across behind her back, or even the back of the neck. Sometimes one leg will be drawn up into the opposite axilla.

“Occasionally she is quite unmanageable. When as rigid [cataleptic] as wood or iron, she will groan if touched. Sometimes feels as if water was running from the back of the head to the left temple. Complains sometimes before a fit of a red spot before her as big as half a bushel [measure], that seems to be all in motion. Sometimes loses both sight and hearing. For three weeks of the time since New Year had no recollection of anything that happened. Quite common for her not to remember anything for two or three days together. Sometimes she will begin to do or say something just where she left off three or more days previous. Has an intense pain in the vertex, at a spot an inch wide and two inches long. There is a tumor larger than a filbert behind the left ear, which feels as if filled with pus.

“Complains of pain in the groin. Has a good deal of pain in the lungs; sometimes raises a pint or more of mucus in a day. Her hearing is very keen during these turns. Sometimes will yell out and cry Bang! and says it is like a pistol in the head. Once affirmed that a bottle cork that lay on the floor just flew out of her ear. Nauseates her to put her feet in hot water. Sometimes the spasms take her in the throat or tongue. Sometimes she will pass an immense quantity of urine.

“Has strong palpitations of the heart, and sometimes her breath

seems to be almost gone. During the heat her hands feel as if swollen. Sometimes her tongue is drawn down her throat. When she has spasms in the throat she does not have them in the limbs. Sometimes food distresses her stomach and it seems all in a knot. Has a great deal of throbbing in the legs. Drinks a great deal in the heat. Has chills in the morning and heat in the afternoon. Has strong palpitation of the heart through the whole left chest, and percussion-sounds on that side are very dull. Head sometimes gets so heavy and feels so large that she can hardly hold it up. Forgets almost everything. The femur sometimes seems put out of joint; can hardly bear the least pressure on the joint. Sometimes fancies she is on a table, and really acts as if she was. The cold painful spot on the head [scalp] is sore to pressure, and the hair does not grow on it. It was entirely bare, but now there is a stubby crop about the eighth of an inch long, and that has not grown any in a long time. Coughs most when lying on the left side.

“The chills come in the back, and has very bad ones in the head, which make her feel very badly; sometimes thinks her mother is a giant, and that her own arms are so long she can reach up to the ceiling [twelve feet], in the corner of the room, and out through the brick wall into the open air; sometimes sees two heads upon a person; things appear double. Before she has a fit her scalp will itch and burn, and feel as if something was crawling all over it. Sometimes feels as if somebody was gripping her wrist and arm, and then again as if some one was pressing down on her shoulders. Sometimes very hungry and can hardly get enough to eat. Feels as hungry a little while after as if she had never eaten anything.

“Sometimes cannot lie flat down at all; does not sleep very well; coughs a great deal and most when lying down. Has had a great deal of pain in the spine. Once had a chair drawn from under her, and fell to the floor and was confined to her bed for a week. Hands get cold when she has a chill; pain in the knees. She lies now flat on her back with her head well raised, the legs extended and close together, while every muscle is as tense as a strained rope; perfectly rigid. The skin is pale, bloodless, and cold. They look and feel more like two sticks of carved wood than human limbs; lifting one leg a little by placing the hand under the heel, raised both legs, and the body also, as if they had all been carved from one piece of timber; the pain in the hips caused her to cry out, and so I desisted after moving the legs two inches. It required a good deal of strength to raise her; seemed as if the legs were glued to the bed, and yet she cannot be very heavy, as the muscles seem to have no fat about them, and are very much shrunken.

"Her sister has herpes and a niece has scrofula. Her sister had three children die of scrofula. Cannot take a long breath; says her back troubles her a great deal; severe pain in it. Says that when she was about, and could walk the street, and was as well as usual, she has had both femurs slip out of joint at once and throw her down, and she was utterly unable to get up till some one pulled at her feet, and got them in again; would get up and walk after it, but her hip-joints would be sore and it would hurt to sit down.

"The legs would fly out each way, right and left, in spite of her, at right angles with the trunk, and let her square down on the ground or sidewalk; these turns generally occurred in the daytime, seldom in the night; now generally about 4, 5, or 6 P.M.; almost always fancies she is falling from a high place, and after it is through with, says she has fallen downstairs. Respiratory murmur rather loud, and a little rough with some bronchial râle. Respiration sometimes 40 or 50.

"Salt taste in the mouth, but she spits blood; it begins with a tickling in the throat-pit, and then coughs up some, seldom more than a tablespoonful; sometimes it comes up without any cough; is like the nosebleed.

"Complains of a great deal of pain in the top of the lungs. Left wrist lame. Has not walked in the last sixty days; can move the left leg a trifle; bites her tongue; will snap at anything like a dog.

"A brother died of consumption and another of Bright's disease. Dr. E. has treated her now over two years. Was always pale and face without color, but was stout otherwise. A young man was courting her; he had fits of some kind; he had one in her presence, and that was what first frightened her; after that she would have nothing to say to him because of it; he used after that to threaten her, and that frightened her still more; he said he would kill her if he got a chance, unless she made it up; that made her have a second fit, and has had more or less ever since. Cough was dry and hacking at first, but for a year has been raising a good deal; all her family subject to dry cough. Always complaining of her back. Dr. E. says he has almost exhausted the list of medicines and remedies with little or no benefit. When the legs are rigid and inflexible has not much appetite; the rigidity is all below the dorsal vertebræ, though the spasms affect the whole body. The mind now seems but little disordered; converses rationally. Is at work making pin-cushions out of large mussel-shells; makes a great many little trinkets for the toilet and parlor table. The urine is sometimes almost suppressed, and again the quantity is perfectly enormous,

a gallon in a very short time; has most when she has spasms; can get none now. Sometimes the stiffness leaves without the spasms, and she can walk about. In the spasms she gives the most extraordinary and indescribable gymnastic performances, but mostly with her legs and back; will assume apparently impossible positions, such as the instep under the axilla or in front of the throat, the legs being flexed backwards, *i. e.*, behind the back. Sometimes it requires several persons to keep her from beating her brains out against the bedstead or walls of the room. Diagnosis: disease of the spine in the lumbar region.

“Was called in council by Dr. E. Advised Cuprum, Conium, and perhaps Stannum and Calc.

“February 28th. Urine seems normal.

“September 1st. Has felt a little of the old spasms of the limbs to-day; has been free from them for two months past. Had return of menses and feels as if they were coming on again. Pain in the back and limbs. A good deal of cough and expectoration and short breath. Pain in left chest and shoulder. Sensation of pressing down in the left lung. Appetite very craving to-day. Sitting up stops the cough for a time. Not much heat, but thirsty and lips dry. Pulse 100. Had congestion of the lungs and pleuritis since last visit, and been very sick, but the spasms have been nothing like as bad as last winter.

“Coughs sometimes an hour and a half in the morning, and during that time the knees and hips and shoulders will be thrown out of joint, but she wriggles, and twists, and turns, and gets them back herself; hurts less than for others to do it. Hurt the sacrum in falling two weeks ago, and the back has pained her more since. Menses returned March 18th, and seen nothing of them since, but has had less hæmorrhage since. Still has the feeling of a snake in the spine. The tumor behind the ear is smaller. No explosions in the head now, but sometimes the head feels as if they were in there; the head feels like shaking a bottle with water in it; sometimes cannot move the head at all, it hurts so. Retains her urine better than she did, and does not pass as much at a time. Has frequently had the lockjaw, but the tongue has not been drawn down the throat lately. Food distresses her very much. Head sometimes feels very big, and so heavy that she can hardly raise it from the pillow. Flies look as big as mice when her head aches. Coughs most when lying on the right side; was the contrary; does not feel it at all in the right side. Scalp very sore to pressure; sometimes itches so that she has to have the hair combed out, and that makes her back feel better. Has not had stiff legs in a long time. Has taken the medicines more or less all the time.

“4th. Menses returned yesterday, and to-day had something

like a spasm; cough is very bad. Atrop. 3d trit., occasionally in the evening. 17th. Gradually got worse and has had several slight fits, and the joints have been out once or twice. Died.

“No post-mortem. This woman was predisposed to hysteria. Had fits from birth till she was eight years old from any excitement. Was as well as young women usually are till she had a love affair. Had a return of the fits. It would have been simple hysteria but for some injury to the spine in the lumbar region. The morbid irritability of this part was aroused, and it became the point from which issued various direct and reflex excitations. The roots of the vaso-motor nerves were directly excited, and all the vaso-constrictor nerves were in a state of extreme tension. The consequence was such contraction of the vessels as to cause general anæmia. The consequence of this would be deficient function and especially nutrition. This would result in irregular distribution of blood. There would be partial congestion of those vessels offering the least resistance, as the brain, kidneys, and lungs. Hence optical illusions, copious urine, and hæmorrhage.”

The rapid waste from these abnormal processes would result in extreme emaciation and variable appetite, but generally great hunger. The return of the menses was due more to an accidental excitation of the dilator nerves than to a return of normal function, since it seemed to alternate with the hæmorrhage from the nose and lungs, while the function of the kidneys was disturbed, as in Chalot's case, by the alternate excitation of the dilators and constrictors, the action of the latter greatly predominating. This author has given us, in his published lectures of 1875, some drawings of an hysterical patient, representing various and strange contortions of the limbs, but none so remarkable as our patient exhibited. The extreme tension or cataleptic condition of the legs in this case, persisting without the least abatement for three weeks at one time, is, if possible, more remarkable than the clonic spasms which produced the seemingly impossible posturing. There can be little doubt, that in this case all the symptoms, consequences, and sequences, may fairly be attributed to disorder of the whole vaso-motor system, though the lesion or origin of excitation was in the anterior portion of the spinal cord, or more precisely at the roots of the motor and excito-motor nerves, and the disease and probable disorganization of the lungs is not to be excepted.

OBITUARY NOTICE.

Carroll Dunham—He Still Liveth.

AFTER an illness of nearly three months, Carroll Dunham, M.D., died at his home, at Irvington-on-Hudson, on Sunday morning, February 18th, a little before nine o'clock, as peacefully as if falling asleep.

The funeral services were held at his house, at Irvington, on the afternoon of Tuesday, the 20th of February. The simple character of the arrangements accorded with his own tastes and with the custom of his family in the burial of their dead. The beautiful flowers were gifts of affection and gratitude. When all were assembled, a hymn was sung which he himself had repeated with feeling only a few days before:

“ Rise, my soul, and stretch thy wings,
 Thy better portion trace;
 Rise from transitory things
 Toward heaven, thy destined place.
 Sun and moon and stars decay,
 Time shall soon this earth remove;
 Rise, my soul, and haste away
 To seats prepared above.

“ Cease, my soul, oh, cease to mourn,
 Press onward to the prize;
 Soon thy Saviour will return
 To take thee to the skies;
 There is everlasting peace.
 Rest, enduring rest in heaven,
 There shall sorrow ever cease,
 And crowns of joy be given.”

The burial service of the Episcopal Church was then read by the Rev. William H. Benjamin, who added the following remarks:

“ In that short saying of Christ, ‘ Physician, heal thyself,’ he compares the functions of the spiritual teacher to those of the professor of the healing art. The reason is plain, for the chief end and aim of each is to benefit the persons of men; of each the business of life is cure.

“ The medical profession is a sacred one; its high honor was forever assured when the Saviour of the world opened out his ministry with the healing of bodies and called himself a physician.

“ He for whom we hold this solemn service was called of God to be a high priest after the order of the Master and Redeemer of men in the school of medicine. Freely to him were given the divine gifts, and freely he gave in the healing of the sick, in the service of humanity, ‘ counting all things but loss, that he might follow the example of his Master,’ that ‘ he might go about doing good, counting not his life dear unto himself.’

“ And now that life has gone unto its reward, as men think of its devotion, they say of it in the language of the communion office of the Church, that it was indeed ‘ presented unto God as a reasonable, holy, and living sacrifice,’ and we hear the divine benediction, ‘ Well done, good and faithful servant, enter thou into the joy of the Lord!’ Amen.”

The services were closed by the singing of the hymn beginning

“ Softly now the light of day
Fades upon my sight away.”

The burial took place the next morning in the family lot on Violet Path at Greenwood, his nearest relatives and a few friends being present.

By request, the officiating clergyman wrote out afterwards the above remarks, which were impromptu, and we take the liberty of adding an extract from the note with which he accompanied them :

“ THE RECTORY, IRVINGTON, February 24th, 1877.

“ At your request, I send the remarks I ventured to offer at the service on Tuesday (at least in idea). I am most grateful if I could say a word which might give a moment's comfort in an hour of such severe trial. It is part of the sacrifice which God requires of one who is united by the holiest of ties to a great and a good man, to be willing to resign his life, when offered up, as was Dr. Dunham's, on the altar of sacrifice to duty; and I am sure this thought will give help, as also the knowledge of the universal love and reverence and gratitude which gather around a name that will not be forgotten. The waves of sorrow roll beyond the circle of home and startle grief in many a household, and a sense of loss that seems irreparable.

“ Even those who only knew Dr. Dunham as a man, and knew him slightly, were conscious, when they were with him, that they were in the presence of a pure and lofty spirit.”

CARROLL DUNHAM, M.D., late President of the American Institute of Homœopathy and President of the World's Homœopathic Convention of 1876, died at his residence at Irvington, N. Y., on Sunday morning, February 18th, in the forty-ninth year of his age. The work of preparing for the World's Homœopathic Convention, which mainly devolved on Dr. Dunham as Chairman of the Committee of Arrangements, was exceedingly heavy and overtaken his strength. Immediately prior to the assembling of the convention he took a short rest, which seemed to build him up, and enabled him to conduct the business of the six days' session with marked vigor and executive ability; and it was hoped by all who knew and loved him, that the rest which he took immediately after the adjournment of the convention would completely restore his health and strength. On his return to his home in the latter part of the summer, from a vacation spent among the lakes, he wrote to the Secretary of the Institute, giving joyful expression regarding his restored health and vigor, and asking that work should be given him and without stint. Shortly after this, however, he had an attack of diphtheria, which seemed to be but the beginning of the end. The insidious Bright's

disease, doubtless caused by overwork of both body and mind in behalf of the cause he loved so well, was slowly but surely draining his strength away, until the end came and he passed from death to life. At the funeral services at his residence at Irvington, held on Tuesday, February 20th, in addition to a large concourse of neighbors and friends, there was assembled nearly the entire profession of New York City and its vicinity, together with Professors J. P. Dake and J. H. McClelland, representing the Hahnemann Medical College of Philadelphia, and Drs. Bushrod W. James and R. J. McClatchey, representing the Philadelphia County Medical Society.

In the *Hahnemannian Monthly* for February, 1877, Dr. R. J. McClatchey publishes the following beautiful eulogy on our departed friend.

"On Sunday, February 18th, 1877, as the rays of the morning sun came pouring over the hills of the Hudson, gilding all nature with the brightness of a newborn day, the spirit of Carroll Dunham winged its way from earth to heaven, and he, so full of wisdom and of goodness, went to live forever in the land of all goodness and all knowledge. He is no more for us forever. Never more shall we profit by new words of wisdom falling from his lips or flowing silent from his pen; but dying he has left us a precious example and priceless treasures, a memory to be cherished and works to be pondered and utilized. Wherever homœopathy is known, he was honored and esteemed, and his writings and teachings were regarded as authoritative, and *there will* he be remembered as one of the great ones of the earth.

"During the past three years, the writer's correspondence with Dr. Dunham was very extensive, and his letters—now become a priceless treasure—are an index to his character and a testimony to his worth. His wisdom and prudence, his knowledge and judgment, his goodness, gentleness, and sweetness of temper under sore trial, are abundantly exhibited. So modest, and yet so decided, in expressing his opinion or stating his dissent; so ready to overlook or excuse the faults and shortcomings of others; so quick to take to himself the work that should have been done by others; so loath to shift the burden from his own overladen shoulders to others; so unwilling to give trouble to any one; the *fortiter in re*, which was strong in him, toned and tempered by a distinguishing *suaviter in modo*, combined with a general goodness, kindness, and gentleness rarely to be seen. These were his shades of character, combining harmoniously to make up the picture of A PERFECT MAN.

"So, then, our greatest has departed. That melody of life, which took captive ear and heart, has gone silent; the heavenly force that dwelt here victorious over so much, is here no longer; thus far, not farther, by speech and by act, shall the wise man utter himself forth. *The end!* What solemn meaning lies in that sound, as it peals mournfully through the soul, when a living friend has passed away! All is now closed, irrevocable; the changeful life picture, growing daily into new coherence, under new touches and hues, has suddenly become completed and unchangeable; there, as it lay, it is dipped, from this moment, in the æther of the heavens, and shines transfigured, to endure even so forever. Time and time's empire; stern, wide, devouring, yet not without their grandeur. The work-day man, who was one

of us, has put on the garments of eternity, and become radiant and triumphant; the present is all at once the past; hope is suddenly cast away, and only the backward vistas of memory remain, shone on by a light that proceeds not from this earthly sun."

The following preamble and resolutions were adopted by the Faculty of the New York Homœopathic Medical College.

At a special meeting of the Faculty of the New York Homœopathic Medical College, held February 19th, 1877, the following resolutions were unanimously adopted:

WHEREAS, It has pleased Almighty God to remove by death our distinguished friend and former colleague, Carroll Dunham, M.D., of Irvington, N. Y., and

WHEREAS, At a critical period in the history of this college, Dr. Dunham served for several years as its Dean, and by his wise counsels and able management of its affairs, as well as by his wide reputation as an instructor in the chair of *Materia Medica*, contributed largely to secure the present honorable standing and prosperity of the institution;

Resolved, That the officers and faculty of this college unite in their expression of sorrow for the loss of so valued a personal friend, and of regret that the cause of medical science and medical education in general has lost one of its ablest advocates and helpers, whose contributions to our medical literature and whose skill as a medical adviser had already obtained a high reputation at home and abroad.

Resolved, That we offer our heartfelt sympathies to his afflicted family for their irreparable loss in the death of him who, in all the relations of life, ever proved himself the noble gentleman, the true and tender husband, and the kind and faithful father.

Resolved, That college exercises be suspended on the day of the funeral in order that the faculty may attend in a body.

Resolved, That a copy of these resolutions be sent to the family of our deceased friend, and to the principal public journals of this city for publication.

J. W. DOWLING, M.D.,

Dean of Faculty.

F. S. BRADFORD, M.D.,

Secretary of Faculty.

The students of the New York College and Hospital for Women passed the following resolutions, which were duly forwarded to the stricken family:

Resolved, That we have learned with deep sorrow of the death of Carroll Dunham, M.D.

Resolved, That in his death the cause of homœopathy has sustained an irreparable loss, and the New York Medical College for Women one of its most valued friends.

Resolved, That not only will his memory be kept sacred for his great intellectual gifts and professional skill, and for his many valuable contributions to medical literature, but also for his readiness to offer timely and judicious aid, and for his generous and unselfish efforts to relieve the sufferings of the poor.

Resolved, That we gratefully remember the services which in the past he rendered our College, and the words of good will and cheer he has since sent, have encouraged and strengthened us.

Resolved, That to his stricken family we offer our tenderest sympathies in this their great bereavement.

MRS. L. A. KRAFT,
President.

JENNIE DE LA M. LOZIER,
Secretary.

The following resolutions were adopted at a meeting of the New York Medical Club, held on the 12th of March, 1877:

Resolved, That the removal by death of Carroll Dunham, M.D., one so eminent for his genius and learning, so honored for his devotion to the cause of medical progress, so beloved for his many public and private virtues, is an event which calls for special commemoration by all his surviving and bereaved associates; and while as physicians we mourn the loss of one who shed such lustre not only upon the homœopathic profession, but upon medicine at large, we also, as members of this club, who for years enjoyed the pleasure and advantages of his intimate companionship, will always tenderly cherish the memory of those more private and social qualities of his mind that charmed all who were admitted to his friendship.

And while we are filled with sadness at the thought that henceforward his chair will always be vacant and his place will know him no more, we congratulate ourselves that it was our high privilege to have remembered among us so exemplary and accomplished a physician, so noble and true-hearted a man.

J. H. THOMPSON, M.D.,
Secretary.

E. M. KELLOGG, M.D.,
H. D. PAINE, M.D.,
Committee.

At the March meeting of the Central New York Homœopathic Medical Society the following resolutions were unanimously adopted:

WHEREAS, The members of this Society have learned the recent decease of our distinguished co-laborer, Dr. Carroll Dunham, of New York;

Resolved, That we receive this painful announcement with unfeigned regret, realizing the great loss thus sustained by the profession in our own country and in foreign lands.

Resolved, That as members of this Society we keenly realize the extent of this our loss when we recall how much we are indebted to Dr. Dunham's masterly pen for the advancement of our beneficent system of medicine.

Resolved, That a copy of these resolutions be sent to the family of the deceased.

H. V. MILLER,
Secretary.

At a special meeting of the Homœopathic Medical Society of the County of New York, on Tuesday evening, March 6th, 1877, convened in memory

of the late Carroll Dunham, M.D., the following memorial was presented by the committee appointed for that purpose :

“ This Society, having heard with profound sorrow of the death of their former President and colleague, Dr. Carroll Dunham, desire to record, though they cannot adequately express, their estimation of his many virtues and their sense of the great loss which they, in common with the entire homœopathic fraternity, have sustained in his decease.

“ In this and other societies that were honored with his membership our lamented associate was faithful and exact in the performance of his every duty, and was always ready to promote, by word and deed, their prosperity and success.

“ His high reputation as a learned and scientific physician, and especially as an earnest expounder and defender of homœopathy, is known to the whole medical world, and we would here bear grateful testimony to his invaluable contributions to our *Materia Medica*, in the knowledge and practical application of which he stood almost without a peer.

“ For his unremitting labors in behalf of medical education, medical literature, and medical reform, we cannot be too thankful. The results of his judicious and disinterested efforts in their behalf are visible in the prosperous condition of all the institutions and enterprises with which he was connected.

“ Possessing intellectual capacities of the highest order, he exerted them never for selfish ends, but always for the public good. Pure in his private life, exceptionally modest and retiring in his demeanor, ever gentle and kind, he knew not how to stoop to meanness or detraction; generous and large-hearted, he was always ready to aid others, and all who were brought in contact with his noble and tender nature were compelled, not only to admire and venerate the accomplished physician, but to trust and love the true-hearted Christian man.

“ It adds poignancy to our grief that his decease, occurring in the prime of his life and in the midst of his usefulness, was hastened, if not occasioned, by his excessive labors in the interests of homœopathy, more particularly in the successful organization and consummation of the *World's Homœopathic Convention of 1876*.

“ In recognition, therefore, of his distinguished merit as a physician, and of his noble character as a man, and in grateful commemoration of his self-sacrifice in the cause of homœopathy, this Society offers this tribute to his memory.

“ E. M. KELLOGG, M.D.,

“ B. F. JOSLYN, M.D.,

“ H. D. PAINE, M.D.,

“ Committee.”

After reading the above, Dr. Kellogg made the following remarks :

MR. PRESIDENT AND MEMBERS OF THE SOCIETY: I desire to add a few words, to express my personal sense of the great loss which has befallen us in the death of Dr. Dunham, and to pay my feeble tribute to the surpassing excellence of his character. I do not propose to say anything of him now

as a writer, or teacher, or practitioner; that I shall leave to others who will follow me; but, inasmuch as it has been my good fortune to have known him more or less intimately for the last thirty-five years, I wish to bear my testimony to his unusual worth as a man. As lads, just entering our teens, we lived near each other in Brooklyn, and attended the same church and Sunday-school. I can hardly say that we played together, for I cannot remember that he was much given to the rough out-of-door sports in which most boys take such delight. He was of a thoughtful, studious turn; more fond of books than play. And even then his demeanor toward his fellows was marked by that same modest reserve which has been such a prominent characteristic of his whole life. He entered Columbia College in 1843, and, as I was in the class just above him, we were frequent companions in our walks to and fro between the college in this city and our homes in Brooklyn. He graduated with honor in 1847, and immediately commenced the study of medicine, and received his degree of M.D. in 1850 from the College of Physicians and Surgeons, then in Crosby Street. And I may mention here, merely as indicative of the sense of trust and confidence with which, even in his youth, he inspired all who came into contact with him, that when I took up the study of medicine, some two years later than he, I was strongly prepossessed in favor of homœopathy, not from anything which he had said to me in its praise or defence, but simply by the force of his silent example, simply by the consciousness that what an honest, thoughtful man like him had adopted was well worthy of my thorough and impartial investigation. And this influence was characteristic of our friend throughout his whole life. His judgment was so sound, his convictions so sincere, his aims so unselfish, his life so pure, his sympathies so tender; he was so free from conceit or arrogance, so modest and unobtrusive, so devoid of petty ambitions, so intent on doing his whole duty, and so kind and liberal even toward those who differed from him, that he commanded the respect and won the confidence of all who knew him.

Funeral addresses, my friends, are expected to be, almost as a matter of course, eulogiums. We instinctively follow the old proverb "*De mortuis nihil nisi bonum,*" and dwell lovingly upon the virtues of the deceased while we bury his vices in the grave out of sight and of remembrance. But in this case no such care or concealment is necessary. Were I to express my sincere estimate of Carroll Dunham's life and character, I would appear to those who knew him not, to be uttering an extravagant eulogy; but to you who so loved and venerated him I speak simply the words of truth and soberness when I state that taken all in all, viewed in all his relations in life, in the profession, in the social circle, in the family, he was more nearly perfect than any one I have ever known. In all my intercourse with him, I have ever found him as nearly faultless as is compatible with human nature. And when I pass in review the thirty-five years of our friendship, I can honestly and heartily say that I do not remember a single word or act of his for which any of his friends need blush, or which he, now gone to his last account, could wish to be unsaid or undone.

The only impatience, I cannot call it fault-finding, which I ever felt toward him during this long period, has arisen a few times from the fact that his

calm, deliberative nature refused to plunge into the arena of medical polemics. For I am one of those who believe in "righteous indignation;" and hold that, as a thunderstorm is at times needed to purify the atmosphere of noxious vapors, so an outburst of just wrath may be necessary to sweep wilful obstructions away from the path of right and truth. But Dr. Dunham was so magnanimous, or, to use the more expressive Saxon word, he was so large-minded, that he could not be partisan; he viewed both sides of every question at issue, and, as a consequence, he was liberal and generous even to his opponents, and always ready to make allowances for their opinions and acts. He was truly one of the "blessed peacemakers." The character of his mind was essentially judicial; approaching a subject impartially, he calmly weighed it in all its bearings; and had he been educated for the bar, his keen intellect and sound judgment would have graced the highest bench in the land. Actuated by an earnest love of truth and justice he was thoroughly unselfish, and always subordinated his private interests to the good of the cause with which he was identified. More than this, his whole life was devoted, in a most self-sacrificing spirit, to the duties which the profession laid upon his willing shoulders; duties and responsibilities which he never refused, and which came to him unsought, simply because all clearly recognized his eminent fitness for their discharge. Thus was he oftentimes overburdened, and on several occasions did his failing health compel him to break off from all labor and go abroad to rest and recuperate. But the moment he returned these labors were resumed; and when at last, exhausted nature succumbed, his death was merely the crowning act of a whole life of self-sacrifice. Though not strong physically, he was a most steady and rapid worker; and though independent of his income as a practitioner, and possessed of a competence which would, especially in view of his impaired health, have justified him in leading a life of elegant leisure, he accomplished an immense amount of literary labor; more than most men, in full health and impelled by necessity, could have performed.

I have spoken of him as unselfish; I may add, from my private knowledge, that he was very generous and open-handed to all who needed his assistance, imparting freely not only of his stores of knowledge but also of his purse. I could tell of many acts of kindly charity and timely aid to poor struggling brethren, but I refrain, for he was one of those who never let his right hand know what his left hand gave.

His unvarying cheerfulness was another marked characteristic. Notwithstanding his physical infirmities and his engrossing labors, he always seemed to dwell in a bright and serene atmosphere, full of hope and peace. His very presence was refreshing and inspiring; he went in and out among us, impressing all with the consciousness that he was a true man who had consecrated his life to a noble ideal of duty.

In his domestic relations he was exceptionably happy, and to his wife the profession owes a debt of gratitude, for not only was she in thorough sympathy with him in all his labors, but to her watchful care is due, without a doubt, the prolongation of his noble life, since without her he would long ago have worn himself out in his endeavors to accomplish all that he had

marked out to do. And I am glad to be able to state that Mrs. Dunham proposes to collect and publish in book form the various valuable papers of her husband which are now scattered through our medical periodicals.

Yes, my friends and colleagues, we have lost our best and noblest man, one who was the heart and soul of the highest work done in our profession. In him we lose more than we now know; for "take him all in all, we ne'er shall look upon his like again." And those who were so blessed as to call him friend, will always be thankful for his life and example; for such a man as he ennobles not only the age in which he lived but humanity itself.

REMARKS OF DR. JOSLYN.

The name of Carroll Dunham was familiar to me before I had the pleasure of seeing this good and great man. His writings in medical journals made him seem like a friend; and when circumstances brought him into my sight he never appeared like a stranger. My intercourse with him always had a professional basis. As a consulting physician I found him willing to give patient attention to every detail of the case in question, and practical and most valuable advice. His marked modesty and absence of egotism were shown by his being willing and even desirous to receive the opinions of those much less learned than himself. Thus several times he requested me to see some member of his family in consequence of illness. I shall always recall with pleasure and profit every meeting with him. He was a most agreeable person; a vein of humor was constantly running through his conversation, adding force to his remarks. This was observed even during his last sickness when, though annoyed by suffering, his mind was always clear. Though his death was obviously caused by exhausted vitality consequent on his labors in connection with the World's Convention of Homœopathy of 1876, and though the nervous system must be looked upon as the main seat of trouble, still the *mind* remained clear to the last, and was never during any period of his illness clouded. His old friend and physician, Dr. P. P. Wells, who attended Dr. Dunham with me during the greater part of this last illness, remarked to me that "he died of no disease;" no one organ could be looked upon as the seat of fatal disease. He had a certain irritating cough, originating apparently in a small spot in the larger bronchi, and relieved by the expectoration after a time of a small portion of tough mucus. This was an annoyance, but could not be said to have had much influence in his decline; an irregular fever was present, evidently varying with any slight strain on his nervous system, as for instance, a day on which he expected one of his nearest and dearest relatives the thermometer showed a degree advance the entire day.

The extreme exhaustion of the nervous system was shown by the fact of his being agitated for an hour or more before my expected visits, and the same peculiarity was noticed when Dr. Wells's visits were made. It was thought best to postpone the visits at one period to three or four days on this account. His kidneys showed evidence of acute disease for several weeks, but this difficulty seemed to be passing off before his death. His old enemy, rheumatism,

appeared in slight degree several times during his last illness. He had for many years been the subject of valvular disease of the heart, but this was apparently rather improved than otherwise. He said he had kept watch of his heart with a flexible stethoscope, and was confident that no hypertrophy had taken place, which he attributed to the fact of his always being careful to keep well nourished, contrary, as he remarked, to some advice received.

His character was very extraordinary for its combination of so many distinguished and lovely traits. His facility as a writer, his learning, his modesty, his love of justice, and his willingness to assist others, were all marked. He was beloved by rich and poor. His old friend Dr. Wells said after his death, "I would willingly have died for him; he could have been of so much more use in the world."

A few years since he occupied the position of trustee of the village of Irvington. At that time small-pox and varioloid broke out in the vicinity; he assiduously procured a supply of vaccine matter, and offered to vaccinate gratuitously all who came to him. A large number of persons availed themselves of this offer, and soon the extension of the disease was stopped. It is not proper for us to infringe on the domestic circle, but it is just to say that his family was united to him by most uncommon bonds. With his family we in common mourn. We cannot understand this mysterious dispensation of Divine Providence; but we hope that same Providence will strengthen the faith of the widow and the fatherless, as well as our own, and let us live in hope of meeting our friend in the next and better world.

DR. HENRY M. SMITH said: MR. PRESIDENT AND FELLOW-MEMBERS: Now that we can no longer talk with Dr. Dunham, it is certainly a pleasure to think of the meetings we have had with him, and to speak of him.

Dr. Joslyn spoke of one of his physicians expressing his willingness to devote himself to restoring Dr. Dunham to health, even at the sacrifice of his own life, if he could thereby save that of his friend. The same physician expressed to me his feelings that, next to the immediate family he had met with the greatest loss. I feel that after his family I have sustained the greatest loss, and so doubtless do many of his patients, friends, and colleagues.

Not only was Dr. Dunham a reliable and cheerful adviser in medical matters, but in all other things, for not only was he well versed in medicine, but in science, literature, and art as well; and in each of these branches there were many who were proud to call him their friend, as well as many who were fortunate in having him for their physician.

By his example, practice, teachings, and writings, he has done more to spread the truths of homœopathy than any other man since Hahnemann. In everything he has undertaken he has shown a thoroughness that is well worthy our imitation.

Dr. Joslyn spoke of his being elected President of the village of Irvington; as such officer it came within his province to look after grading, drainage, water supply, etc., things foreign to his former line of study, and obliging him to take up a new one. As a member of our Society you all bear witness to his fidelity in every position he was called to.

As a practitioner he was known to you all. His teachings were in accordance with his practice, and always with the view of developing the truths of homœopathy, advancing the science of medicine, and elevating the standard of medical education.

By his writings will he long be known. He has contributed his quota to the general stock of information. By his work in this direction have men and women been better for his having lived. A careful observer, and having a thorough knowledge of physiology and pathology, he was able to interpret the symptomatology of our drugs, and obtain pictures of their action, as few others could. His studies of various remedies, as published in the *Philadelphia Journal of Homœopathy* and the *American Homœopathic Review*, have rendered efficient aid to the physician in getting a knowledge of our *Materia Medica*. His editorial articles in the third volume of the *Review*, under the title of "Homœopathy the Science of Therapeutics," may well be considered his masterpiece. In them he fully sustains his claims for the position of our school. In other contributions to our literature, on the current topics of the day, reviews, and criticisms, there is throughout a vein of humor, characteristic of him.

From his youth he had been accustomed to correspond almost daily with his father, whereby he acquired the habit of closely observing facts and tersely expressing his opinions, which served him well afterwards, for it was no labor to write, even his most carefully considered articles; never having to rewrite, and seldom correcting his manuscript.

Carroll Dunham was born in this city in 1828, graduated in 1847 at Columbia College, and received his medical diploma from the College of Physicians and Surgeons of New York in 1850. While a student of medicine, he was cured of a serious illness by a homœopathic physician after eminent practitioners of the old school had failed. This led him to inquire into the teachings of homœopathy, and institute comparisons between the two methods of treatment. There being no homœopathic hospitals in this country, he went to Europe to have the advantage of those there. After spending some time at the Rotunda Hospital in Dublin, and at the hospitals in Paris, he visited Bœnninghausen, with whom he spent the greater part of each day, for six weeks, in his office, observing every patient, and noting every prescription and its effects. Bœnninghausen kept a record of every case, and by noting clinical effects of remedies had been enabled thereby many times to effect brilliant cures, that elicited from other practitioners the question why he gave such a remedy, or where in the *Materia Medica* he found indications for it? We remember the same queries being asked regarding Dr. Dunham's prescriptions.

Dr. Dunham's rule for his own guidance seemed to be that which he incorporated in our code of ethics: "As ye would others should do unto you, do ye also unto them." And the advice he gave in his address to the graduating class was that which he had himself followed. Of his address before the American Institute of Homœopathy, at Chicago, the liberality of his views, and the freedom of medical opinion he advocated, together with the criticism it called forth from the small minority in our school, you do not need be reminded.

We are not to lose the benefit of his writings. They will be collated, both the published and in manuscript, and given to the profession, under the editorship of his equally accomplished wife.

DR. H. D. PAINE remarked. MR. PRESIDENT: It is not because I feel that there is need of further advocacy of the committee's report, or that I can contribute any information respecting the life and character of Carroll Dunham that is not already possessed by others here present, that I rise in obedience to your invitation. There is little occasion for argument when all are agreed, or for persuasion where all are drawn together by a common motive and for a common purpose.

The appropriate remarks that have already been made by yourself and by my colleagues of the committee, and the fact that there are others among us whose long intimacy with our departed associate entitles them to a hearing, might seem to render silence on my part more becoming.

But I find it difficult to follow that prudential suggestion. When the heart is full it naturally seeks some outlet for its suppressed emotions; and I therefore embrace with alacrity the opportunity to add my feeble tribute to the memory of one for whose character I feel the highest admiration, for whose person I entertained a lively affection, and whose loss affects me as a personal as well as a public bereavement.

It was not my privilege, like some of my more favored colleagues, to enjoy a personal acquaintance with Dr. Dunham during the early part of his career. I was not, however, altogether unfamiliar with his genius, or his reputation as a skilful physician, years before I knew him as a friend. It happened that for a time he practiced medicine in a field which had previously been the scene of my own early professional efforts. From many former friends and patients I heard frequent reports of the grateful estimation in which he was held by those who enjoyed the advantages of his skilful and scrupulous care, and of the favorable impressions he made upon all who came within the genial influence of his presence.

It was in this way that I first acquired a knowledge of some of the more obvious traits of his character, and became inspired with an admiration, not I fear quite exempt from envy, of his wonderful success in winning the confidence and high regard of his patients and their friends, notwithstanding the singular modesty of his manner, to which allusion has been already made. I heard something of his reputation for science and scholarship, but more of his kindly dealings with the sick; of his patient listening to their complaints; of his faithful attendance; of his ready but not over-hasty prescriptions; of his quiet but cheerful ways in the sick-room; and of his successful treatment.

Thus it was that I learned, though at second hand, to esteem him favorably long before I had the opportunity of seeing or knowing him. Somewhat later I was attracted and charmed by a number of essays from his pen, on subjects connected with medicine, and especially with those of most direct interest to our school, that appeared in our magazines. All who have read the papers that Dr. Dunham, too infrequently, contributed to our literature,

must have observed the remarkable clearness and conciseness of his statements, the closeness of his reasoning, the convincing force of his argumentation, and the generous spirit that pervaded even his most controversial articles. But I need not enlarge upon this point. The obligations of our school to Dr. Dunham for his masterly expositions and defence of homœopathy have been already referred to and are generally acknowledged.

It is about twelve or thirteen years since our actual acquaintance began; and though my prepossessions were so strong, I can truly say that they have been more than confirmed as the acquaintance ripened into a friendship which I feel proud to have enjoyed. In the eulogium with which Dr. Kellogg has favored us there is no exaggeration. The admirable qualities of his head and heart, of which we have been reminded, were so natural to him, so impressed themselves upon his very features, that all who saw him involuntarily yielded the respect which is due to superior merit. But I do not propose to reiterate the enumeration of his claims upon our admiration and thankful commemoration.

There was, however, one trait in the character of Dr. Dunham that has been barely alluded to, that seems to me deserving of more extended notice, as having been less generally appreciated than others that have been spoken of. I refer to what may be called his judicial and legislative faculty; and it was just that characteristic that I had some special opportunities of observing, more, perhaps, than some of his friends who were in other respects more intimate with him than myself.

Not long after the beginning of our acquaintance it happened that we were officially associated together in the investigation of some professional controversy, one of those unfortunate contests that sometimes arise, even in our peace-loving and charitable profession, involving questions of ethics and of fact, and which not unfrequently lead to lifelong animosities and mutual alienations.

I confess that I was hardly prepared for the display of clear discriminating sagacity with which he took up the investigation, and the earnestness with which he pursued the delicate and unpleasant duty to a logical and just conclusion, and I recognized in him the possession of a mental quality not always conspicuous even upon the bench.

Singularly enough, as it now seems to me, there were a number of occasions following, during subsequent years, in which we acted together under circumstances calculated to bring out to view this faculty of his mind. Some of these were of a private and confidential nature, while others were connected with questions of more or less public interest; several of these will naturally recur to many of my audience. Most of the members of this Society know something of the important part he took in the proceedings which resulted in the reorganization of our Medical College. But very few are aware of the amount of arduous labor that he gave to that business, or of the peculiar difficulties he encountered in the accomplishment of the task. Other instances will occur to those who have kept pace with the progress of events in the history of our school in which his judgment and administrative talent were most effectively and successfully exercised. He was closely connected with the early history of our State Insane Asylum, and in the different stages

of its progress to permanent establishment, assisted materially by his advice and prudent management in arranging difficulties and settling differences. As a member of various committees and bureaus, in our State and National societies, for the consideration of important matters connected with medical legislation, his opinions and judgment always commanded respect and usually controlled the course of action. It may be said without hesitation that the existing laws of the State in regulating medical practice and for the suppression of quackery owe much of their fair and liberal character to the influence which he exerted.

In these examples, as well as in others that time does not allow me to refer to, I had abundant opportunities of observing this judicial element of his mind, and I cannot but recur to that experience as an evidence of his superior mental constitution.

The fact may also be cited to his credit, that although the functions of an inquisitor or an arbitrator were not agreeable to his modest and retiring disposition, he never hesitated to accept any position or to perform any duties legitimately imposed upon him.

I have often been struck with the prompt and decisive way in which he would set about any work of this kind that he had in hand; how impartially he would gather the testimony or the facts bearing upon the subject; how readily he would seem to grasp the material points, and eliminate those that were immaterial, while his own sensitive conscientiousness rendered him quick to discern the wrong. He was considerate of the motives and feelings of those who seemed to be culpable; and though he condemned the evil he was ever tender towards the evildoer.

It must not be thought, from my dwelling so long upon this particular aspect of our friend's character, its more severe aspect, that he was deficient in those social qualities that enliven and interest. On the contrary, in the social circle, among neighbors and friends, and in the bosom of his family, his genial nature shone conspicuous. With a vast fund of curious and interesting information, gathered from books and travel, he possessed a rare wit and a fine appreciation of humor that gave to his conversation a delightful charm and freshness.

But I must not trespass longer upon your forbearance. There are others here whose peculiar relations to Dr. Dunham qualify them to speak of some particulars in his life that have not been referred to. Every circumstance relating to the career of our distinguished associate, now that he has gone from us, must be of interest and value to all who survive to honor his name and memory.

DR. HELMUTH said: MR. PRESIDENT: It can scarcely be expected that I should have much to say on this occasion, especially as those who have preceded me were so much better acquainted with Dr. Dunham than I was. They have been his associates for years; they have long enjoyed the pleasure of his friendship; they have seen him in joy and in sorrow, in prosperity and adversity, and therefore I feel incapable of adding anything as a tribute to the memory of that truly great man.

It is only since my residence in New York that I can lay claim to any personal knowledge of Dr. Dunham, but in that time, short as it was, I learned to love him; love him for the beauty of his character, to respect him for the accuracy of his judgment, and his honorable dealings with his fellow-man, and above all to admire the unostentatious energy with which he advanced the cause of homœopathy.

I actually believe that Dr. Carroll Dunham has done more for the interests of homœopathy, not only in this city, not only in this country, but in the world at large, than any other man since the time of Hahnemann.

It does seem to me that with his vast scientific knowledge, with his accurate literary acquirements, with his wisdom in the application of both of these, that his modesty was the beautiful trait in his character, and through this he chiefly endeared himself to the entire profession. Dr. Dunham never lauded himself; he never in his writings, or his teachings, brought himself to public notice; and no one will ever know how much good he has been to our school, because he could never be brought to recount either the advice he had given to others, or the personal acts of his own tending to the propagation of homœopathy.

So much has already been said to-night regarding Dr. Dunham by his old and personal friends, that I feel I am not able to add an item either of interest or importance; all I can say is this: He was my friend, and I loved him, and

"Take him for all in all,
I ne'er shall look upon his like again."

DR. J. W. DOWLING feelingly remarked at the Commencement of the New York Homœopathic Medical College:

Before closing, we feel that reference should be made to the great loss the homœopathic profession of the entire world has met with in the death of the former dean of the college, Carroll Dunham, M.D., a true Christian, an able scholar, a thoroughly educated physician. Carroll Dunham's name will never be mentioned, in the presence of those who knew him or knew of him, without awakening feelings of love and reverence. His life was one of *truth* and *goodness*. He was charitable in the true sense of the term. None ever heard him boast or tell of his acts of benevolence. His conduct throughout life seemed to be based on the motto that "A good name is rather to be chosen than great riches." He was kind, truthful, and temperate of speech. He never paraded his virtues; he had earned, without ostentation, a good name, founded upon well-tested qualities. Never was there a suspicion excited in the mind of any one, that his actions in important matters, in *all* matters, were not prompted by purity of heart and *love of right*. By years of devotion to the profession he had chosen, by his searching investigations, by his lucid writings, he had acquired a personal influence among his fellows on this and the other side of the water, equalled only by that of our illustrious father, Samuel Hahnemann. Four years ago, when on account of ill health he resigned the position of dean of this college to seek rest and restoration abroad, the prayers of thousands accompanied him, and on his return, refreshed in

mind and body, thousands of warm hearts welcomed him. To his dying day he enjoyed the confidence, the esteem, the affections of all who knew him or knew of him. There was no blemish on Carroll Dunham's character. His name was never mentioned but with respect, and, although now withdrawn from us, his influence, his example, will continue to work benefits upon those left behind, long after our eyes cease to shed tears, long after the deep heart-sorrow for our loss has been healed.

Five years ago to-day Dr. Dunham delivered an able valedictory address to the graduating class of this college; that address was published, and Mrs. Carroll Dunham has kindly sent copies of it, one to be presented to each gentleman who shall receive his diploma to-night.

Scarcely a homœopathic organization in the country but has taken action on the death of this noble man. At a meeting of the Board of Trustees of this college, held Monday evening last, the following resolution was unanimously adopted:

That the Trustees of the New York Homœopathic Medical College make a record of their sense of the great loss sustained by the profession and the community in the decease of Carroll Dunham, M.D., formerly the honored dean of this college. That they hold his life and works as a part of the best annals of the profession. That they commend his example to young physicians as that of a man who illustrated every quality that can adorn personal and professional character, as one who was an ardent searcher after scientific truth, an enthusiastic but tolerant and magnanimous advocate of the principles of homœopathy, a kind, gentle, and sympathetic physician, a friend and favorite of his professional brethren, and a wise, moderate, and Christian gentleman. That we recall with especial interest and regret the fact that his life was shortened by the arduous labors which he designed and carried out as President of the World's Convention at Philadelphia, held for the promotion of that cause which he had so much at heart.

DR. T. F. ALLEN'S REMARKS.

MR. PRESIDENT, LADIES AND GENTLEMEN: It is scarcely possible to add anything to the remarks that have already been made, though my early association with Dr. Dunham afforded such opportunities for appreciating his many-sided character as have been enjoyed by few of our colleagues.

The first impression he ever made upon me was that of *large-heartedness*, generosity in respect to intellectual as well as material wealth. His dealings with me as junior partner, with no foothold in this city but his recommendation, at times overwhelmed me by their liberality. The same spirit impelled him to contribute freely from his own mental powers. How vividly I recall seeing my first report of a case that he requested for publication in the journal garnished with additions from his pen. Indeed, I have known him to devote hours to the elaboration of another's work and not take the least credit to himself. The same spirit led him to make elaborate replies to requests for information or advice. No amount of detail seemed too great to bestow when desirable, always returning not merely answers but illustrations as well.

Another marked characteristic feature seemed to be *accuracy and thoroughness* in everything he undertook. The elaborate manner in which his ledgers and bill-books were kept early impressed this upon me, and as I became cognizant of his method of examining and prescribing for patients this impression deepened. This trait of his character is so well known that it is no longer a personal reminiscence; it is, I believe, the mark of a great mind. No man who is slovenly and careless in thought or word can ever hope to be an authority to be relied upon as was Dr. Dunham.

His *facility of expression*, especially by means of his pen, was something which always commanded admiration. He once told me that he owed much of this to his father, who was in the habit of corresponding with him when quite young. Dr. Dunham also remarked that after all it was attained only by hard work, and that his early contributions were written and rewritten over and over again till satisfactory.

His *records of cases* are models. In this he patterned somewhat after his preceptor Bœnninghausen. His case-books were mere small handy quartos containing printed forms for recording the history, present condition, and results of treatment. In thus preserving his records he not only benefited his patient but himself and the world. I believe that no man since Bœnninghausen has added so many original verifications, or has discovered so many indications for the use of our remedies as he for whom we mourn.

There was a bit of work which I may be pardoned for alluding to as personal, namely, most valuable aid in reorganizing the Ophthalmic Hospital. I believe that, without detracting in the least from the present directors, Dr. Dunham as chairman of the Committee on Constitution and By-laws made suggestions which the admirable working of the institution has shown to be wise and farsighted.

He was always deliberate and dispassionate; he always endeavored to make the best out of every one, and to give every one the chance to do his best, and I believe he fearlessly performed whatever seemed to be his duty.

At the memorial meeting of the Homœopathic Medical Society of Kings County, the President, W. L. R. Perrine, introduced the business of the meeting by saying that Carroll Dunham was once a Brooklyn boy; here he lived, studied, began practice, and married. His father was the decided patron and protector of our first public homœopathic institution, and did much to maintain it during years of obloquy and great hindrance.

The boy of Brooklyn was beloved by all as a youth, as a young man, and as a physician. He developed those traits of character which caused his name to be honored wherever homœopathy is known. Those who differed with him in practice honored him for his sincerity, his adhesion to principle, and loved him for his forbearance and harmony with the principles and practices of others. He was very laborious, and, though he was not yet prepared to give us the fruits of his experience in a collected form, yet his papers are numerous, and his opinions have very largely become law. The world feels his loss. In the light of his last great effort, the chairmanship of the World's Homœopathic Convention, he shone particularly lustrous, and when, as the

fruits of his labor and his consequent death, we shall have the volumes containing the thoughts and principles of those who in every country are authorities, and who by age are passing away, we shall see that our departed friend was grand in his last efforts.

Dr. P. P. Wells: Allow me to state, in a brief form, a few facts in regard to the life of Dr. Dunham. He was born in the city of New York, and lived there during his childhood. His mother died during the epidemic of cholera in 1832, when he was but four years of age. Soon after his father came to Brooklyn, and, after having passed through a boarding-school, he fitted for college, entered Columbia College of New York, and, in due course of time, graduated at the age of nineteen. His father was a convert to homœopathy, and desired to educate his son for the medical profession and in the same faith. I was consulted with reference to the arrangements for such medical education. Dr. Dunham was always my friend, never my pupil. He began his professional studies under Dr. Whittaker, an old-school practitioner, very capable and of high standing as a trainer of students. Dunham graduated at the Crosby Street Medical College, now the College of Physicians and Surgeons.

Immediately after graduation he visited Europe, was resident physician of the Dublin Lying-in Hospital for a time. While there he suffered a very severe and almost fatal illness, caused by the poison of a dissecting wound. The Dublin physicians gave him up to die, but he cured himself with Lachesis.

From Dublin he went to Paris and studied specialties under private instructors. He afterwards went to Vienna, where he tarried for several months, after which he spent some time with Bœnninghausen, who greatly admired the young physician's talents and capabilities, and always spoke in very complimentary terms of him as being "very industrious."

After coming home he commenced practice in Brooklyn, where he remained four years, when he was obliged to leave the city on account of hæmorrhage of the throat. He went to Newburgh, where he resided five or six years. His health again gave out, when he removed to Irvington, which he made his home for the most part till his death. His poor health often compelled him to relinquish practice and leave the country. He visited Europe twice, also Cuba and other foreign resorts. The practice of his profession was in this way many times interfered with. He frequently overtaxed his powers, and this at last cost him his life. He died from exhaustion, induced by excessive and protracted labor. His last illness may be dated from the convention held at Philadelphia, June, 1876. After labors such as no other living man could have performed, he went to the convention with the hope of accomplishing his duties. He retained his health and strength until Thursday night, when he left the city on account of illness, returned and presided on Friday and Saturday, when he left the city exhausted by his arduous labors. Recovering somewhat, a trip was taken to the West and to the upper lakes. On his return he thought himself improved, and again resumed his labors on matters connected with the convention. When returning home he and his son went in the baggage-room on the lake steamer, which contained the body of a child

who had died from diphtheria. Both were attacked with the disease in a severe form and recovered favorably, considering the severity of the attack. Dr. Dunham's last fatal mistake was to resume his work on papers connected with the convention, and to return again to his office practice too soon after his illness. During his last illness his attending physician was Dr. B. F. Joslyn, of New York. I have attended him from the time when he was in college, but during his last illness, on account of my own infirmities, the family kindly excused me from regular attendance upon him. He took to his bed on the 2d of December. I saw him early in January. He had daily attacks of fever; said he had recognized no chill, and was sure he had no malaria. The fever came on between six and seven o'clock in the evening, and resolved itself by a profuse perspiration in the later hours of the night. During the second week of January he still had fever and a very harassing cough. He could not take anything but milk. The cough came in severe paroxysms, and continued till he ejected a small quantity of tough mucus, when he felt relieved. All these symptoms are found under *Sepia*. After taking this remedy he had no fever for a week, perspiration was greatly lessened, and he was again able to take food. When the fever reappeared, Dr. Joslyn, on examination of the urine, found albumen, hyaline casts and scales, showing commencing disease of the kidneys. In three days the albumen had diminished, and the casts and scales were few. A week after another examination revealed an abundance of casts and scales. On the Monday morning preceding his death he became cold, and remained so until Wednesday night. There was some cold perspiration. For this condition he received *Veratrum album*. Thursday and Friday there was no chill or fever. Thursday night he had diarrhoea, which was partially arrested. I saw him again on Saturday, when he seemed to be in a dying condition; his breathing and speech were difficult, countenance ghastly; said he had just had a chill, but thought it was accidental, and caused by removing the bedclothes, and that he was just coming out of it. His pulse was 92, the only symptom which inspired still a little hope. A little before nine o'clock the next morning he turned on his side and died. It is worthy of remark that all the symptoms of disease of physical organs yielded to the remedies prescribed. The plain fact was that he had expended too much brain power, and there was not enough physical force left to keep the machine running.

The President appointed as a Committee on Resolutions, Drs. P. P. Wells, E. T. Richardson, J. P. Duffin, R. C. Moffat, and H. Minton, who reported as follows:

WHEREAS, It has pleased Almighty God to remove from his labors our beloved colleague, Carroll Dunham, M.D., by death; and

WHEREAS, When those pass away from us who have been eminent for their virtues and labors, it is becoming in those who remain to bear witness to those virtues and to the benefit received from those labors;

Therefore we, the Homœopathic Medical Society for the County of Kings, in the State of New York, now assembled, resolve:

1. That in the death of Carroll Dunham, M.D., the homœopathic medical profession in this State, in this country, and throughout the world, have suf-

ferred irreparable loss by the cessation of the noble endeavors, the generous forthgiving of varied knowledge, and the clear and truthful teachings from which we received so great benefit.

2. That by the death of Dr. Dunham the medical profession has lost one of its brightest ornaments, our own school one of its ablest writers and teachers, and the community a noble and constant benefactor.

3. That we recognize in the purity of his life, the integrity of his motives, his love for truth and devotion to its interests, in the urbanity and benevolence which ever characterized his intercourse with others, and in his large-hearted liberality, an example worthy of our memory and imitation.

4. That in the discharge of his professional duties, his devotion to the welfare of his patients, and conscientious obedience to the requirements of law, were ever the paramount consideration which characterized his life.

5. That we tender to his bereaved family our heartfelt sympathy in their affliction, while we confidently commend them to the fatherly care of the God of the widow and of the fatherless.

6. That a copy of these resolutions be transmitted to the family of our late friend and colleague, as an expression of our sense of their loss and ours.

W. E. R. PERRINE, M.D.,
President.

E. HASBROUCK, M.D.,
Recording Secretary.

Dr. R. C. Moffat: The resolutions do not express all I could wish. I do not apprehend that Dr. Dunham is lost to us. He is simply removed to another sphere. His individuality is to us the same as ever; it is among us, and he is not lost to us.

Dr. P. P. Wells: We cannot express in resolutions all that we felt; we could only express in brief terms the sense of our great loss. We have lost the benefits from future productions of his pen, his wholesome councils, his genial presence, and his loving sympathy. The world has lost his labors. It was my fortune to know Dr. Dunham more intimately, perhaps, than any one present. There is no one remaining, whom I can lose, whose loss I should so deeply feel. As a boy, he was always dutiful; as a young man, affectionate, truthful, and energetic; as a young physician, industrious and devoted to his profession, loyal to his duty, and devoted to his patients. I never knew another man who had such eminent qualities to attract the love of his patients, both the ignorant and the learned, the rich and the poor, the high and low. He was ever kind-hearted, and full of benevolence and sympathy to the poor. I have loved him greatly. He has been to me more than a brother. He was many-sided to such an extent as I have never seen in any other man. His learning was surpassing, his literary culture great, and his modesty great as either. He spoke the languages of modern Europe like his own, but in his conversation to others he used plain English. There was nothing pedantic about him. His insight into the elements of disease, and into the nature of the agents by which they were cured, was surprising. His analyses and comparison of these in his prescriptions were most careful and acute. He has

left an example which may God help us all to follow. No higher eulogium can be pronounced upon any of us as a physician, after his departure, than this: HE WAS AS TRUE AS DUNHAM.

Dr. J. P. Duffin: Dr. Dunham was a young practitioner when I came to Brooklyn and left in about a year. The first notice I took of him, and by which my attention was especially attracted to him, was in a law case about twenty years ago, in which he appeared as a witness. There was a delegation of old-school physicians from New York added to a combination of like character here, and they were opposed to him. They tested him on pathology, and were surprised at the extent of his learning. I know of another case, where I took the patient to him and he gave me his opinion as to its treatment. In two weeks he came from New York to see the patient, and then pointed out to me what he thought to be the nature of the disease, expressing the opinion that the patient would soon die, and coagula, gangrene, etc., would be found. He seemed to have an insight into the exact process of the disease, and the autopsy gave such results as Dunham foretold. He had no superior as a diagnostician.

Dr. A. C. Burke: Though not so intimately acquainted with Dr. Dunham, I learned to admire his skill, his courtesy, his dignity and noble life, in all of which he was above us all. These qualities were all equalled by his modesty. He was a man of great research and always industrious. I hope some record of his life may be arranged in proper form for the benefit of the rising generation, and we also should take the lesson of his life to our hearts, so that we may practice the virtues which he possessed, dismissing all petty jealousies, cease all bickerings, and love one another. *Let us strive to be like him.*

Dr. S. S. Guy: I simply desire to testify to the great worth of our departed friend, and I notice particularly his courtesy to an extent rarely seen in our profession, and his great earnestness and interest in his cases. He was the most benevolent man I ever knew. He was a true genuine man, reaching up almost to the plane of an angel, as high as man can get. I never knew he had any faults, never heard any one express such an opinion. His life should be a wonderful practical lesson to us; we should all strive to reach a higher plane than we now occupy.

At a special meeting of the Clinical Society of the Hahnemann Hospital of Chicago, held on the evening of March 24th, 1877, Dr. R. Ludlam offered a resolution expressive of the loss sustained by the Society and by the profession at large in the death of Carroll Dunham. In support of this resolution, Dr. Ludlam read a biographical sketch of its subject, and closed his remarks as follows:

“This, then, is the briefest possible sketch of the professional career of our friend. His life was not full of incident, but of excellence. His traits were those of a *true* man. At the meetings of our National Society he was the one who moved about the most quietly, who came and went with the least parade, and who, while he spoke very seldom in debate, always talked to the purpose. He was the member whose committee *never* failed to report, and whose papers

were *always* well digested, clear, concise, practical, and ready for the printer. He was the source of appeal for men on both sides of mooted questions, and his counsel was sure to be clarified with good sense and judgment. No matter what the circumstances, in reading his writings, or in hearing him speak, one never felt like discounting the treasures which *his* ship would bring into port.

“Dr. Dunham was a singularly modest man. There was nothing meretricious about him. His attainments were of a very superior order, but only his best friends knew what a student he had always been, and what was the pattern, and finish, and worth of his intellectual furniture.

“His influence was almost unbounded. He had the skill and the tact of a great diplomatist, but these were never used for his own personal purposes. His pen was his sword—the sword of Melancthon, and not of Luther—bright, keen, *trenchant*, but it can truly be said that it never ‘carried a heart-stain away on its blade.’

“He was not fond of controversy, but whoever supposed that he could not defend his views most gallantly, would be very much mistaken when the next magazine brought his rejoinder. You will find one of the most forcible of these papers in vol. iv of the *U. S. Medical and Surgical Journal*. It is a great deal to say of one who wrote so much as he, that he has not left an untruthful, an ill-tempered, or a silly word on record; nor was he ever guilty of the trick of putting forth opinions which are, and which must always be, incontrovertible, merely because they are unintelligible.

“His lot was cast in a country and in a period in which the greatest possible differences of medical belief and practice prevailed. In the Homœopathic School, the interests of which were so dear to his heart, there were opposing factions. The germs of illiberality had been carried into our own field, and dropped there, as the passing trains sometimes carry the seeds of plants for hundreds of miles across our prairies, and drop them in a congenial soil. Our literature was in danger of being overgrown by the ill weeds of prejudice, which was never designed ‘for the healing of the nations.’ We were likely to become as bigoted as the school from which Hahnemann and his early disciples first colonized. If homœopathy was to survive these threatening conditions must be overcome. In America, at least, we must have a leader who could harmonize our forces and turn our guns the other way.

“No mere dogmatist could do this, and no man whose attainments, acquirements, and experience failed to command the confidence and the respect of all parties could hope to achieve such a result. If he were noisy and pretentious, puffed up or pugilistic, unjust or biassed in favor of the one or the other, he would not be the man for the place. He must be learned and liberal, earnest in his convictions, but of an elastic and charitable spirit. His influence must operate silently, like the rays of light which come so far and fall so softly; and it must be grateful, or it would do but very little good.

“It was because our friend had precisely these qualities that his address before the American Institute in 1870, upon ‘Freedom of Medical Opinion and Action,’ had such a wonderful effect. The building in which that oration was delivered became a smouldering ruin in our great fire; but the principles enunciated by him then, and the very words by which they were set forth,

will survive and continue to extend their influence until the final conflagration of all things.

“Throughout the civilized world, wherever Dr. Dunham was known, there was scarcely a member of our school of medical belief who would question the results of his experience, and nobody doubted his word. He had faith in the medium and higher potencies, because he had tested their efficacy; and we had confidence in his conclusions because we trusted the man himself. Surely it is no reflection upon his friends and ours, who yet remain faithful and who continue to carry weight in their professional relations, to say that his following was a very large and influential one, and that, in this sorrowful emergency, there is no one to fill his place.

“Although Dr. Dunham's writings were chiefly upon *Materia Medica*, they are more largely clinical and therapeutical than speculative. They are characterized by a remarkable discernment of the cardinal peculiarities of the drug in question, and by a perspicuity of statement concerning them, which, while it does him infinite credit, is quite exceptional in that department of our literature. You will find a remarkable illustration of this gift in his hints upon the nervous prostration which is characteristic of *Silicea*, and also in his lecture upon the *Rhus toxicodendron*.

“There are no broken rainbows in his phraseology, and no arbitrary or illusory promises for those who take his counsel and who test his conclusions. Given the conditions, what he says of the sphere and of the capacity of a remedy may be depended upon implicitly. And his statements will continue to be verified while physicians continue to prescribe *Platina*, *Sepia*, the *Lilium tigrinum*, and the other remedies of which he has written so carefully and so well. All of these writings merit a separate publication, in order that they may be accessible to us in our daily work.

“There is one phase of Dr. Dunham's character which cannot fail to interest us as members of a clinical society, the design of which is to collect, to compare, and to record the results of our combined experience in the various departments of medicine and surgery. I allude to his tact in perceiving that, in kind as well as in quality, our professional gifts are not alike; and to his readiness to give every man credit for the good that was in him, whether he worked in the field of *Materia Medica* or in some other specialty, this rare and generous trait made him a source of inspiration to his brethren, and gave a peculiar emphasis to his words of encouragement for them. Some of us can never forget what we owe to his memory for this remarkable catholicity.

“Dr. Dunham was the originator of the project for holding the World's Homeopathic Convention in Philadelphia in June last. The confidence in his ability to manage this scheme was so great that our National Society gave him full power to arrange its details, to associate with himself such members as he might select, and agreeably to his own idea, to call the ends of the earth together for mutual conference and encouragement. In 1875 the Institute honored itself by electing him President for the year 1876, when the fruit of his special labor should be fully ripe. How thoroughly he performed the duties of that office, and how he dignified his profession at the desk of that great Convention, who that was present can ever forget?

"A detailed history of that Convention, of which he was the sun and the centre, would show that in carrying out his plans he performed a task of which very few men are capable. Under date of April 27th, 1876, he wrote me: 'The responses of our friends from abroad are gratifying. Two years ago I had not much confidence, but when I found the thing *was to be*, I determined it *should be a success*.' And then follows a list of foreign communications in hand, in half a dozen languages, which aggregated 1456 pages of manuscript. These communications, and all others of a similar kind, were either translated by himself, or their conversion, when necessary, into our vernacular was superintended by him in the minutest particular. They were first collected by him through a voluminous correspondence, then translated, and finally printed under his personal supervision. His careful eye scanned the "proofs," which were thick as autumn leaves blown into the vestibule of our last place of meeting; but, alas! it was never to look upon the published volumes, for, before they could issue from the press, he himself had passed away.

"How characteristic, and how prophetic is a passage which I find in another of his letters: 'The fraternal feeling which grows out of this Convention business is one of its pleasantest features. Of course, I have Convention on the brain,—I sleep, eat, and live it; and have put some of my best blood and life into it; but hope to have some left when it is over.'"

How deeply the loss of Carroll Dunham was felt all over the world, the different journals of our school bear witness. Thus the *American Observer*, March, 1877, contains the following necrological notice:

"UNIVERSITY OF MICHIGAN,
ANN ARBOR, February 21st, 1877.

"DEAR DOCTOR LODGE: I have just received the sad tidings that Dr. Carroll Dunham is no more. He entered into his rest on Sunday, the 18th inst., and was interred at Greenwood Cemetery to-day.

"I find myself powerless to express my feelings; and I can only echo the words of Prof. Lillenthal, who says in his brief note to me, *nobody in this wide world can take his place*.

"It is, indeed, a loss that stupefies; and when more reconciled to this, our common bereavement, I hope to pay a more adequate tribute to the memory of him whose unvarying friendship will ever be treasured among the dearest recollections of my life. Thank God, not even the grave can take his influence from us!

"Sincerely yours,
"SAMUEL A. JONES."

The *Homœopathic Times*, March, 1877, contains this obituary:

"We are pained to record the death of our esteemed colleague, Dr. Carroll Dunham, which occurred at his residence in Irvington-on-Hudson, February 18th, at the age of forty-nine.

"Dr. Dunham was born at 37 Broad Street, this city, in the year 1828,

graduated in the literary department of Columbia College 1847, received the degree of Doctor of Medicine in the medical department of the same college 1850, and later, under the guidance of Dr. Hering, studied homœopathy.

"As a co-laborer in the line of medical literature he was well known and justly famed. No man in our school has done more towards analyzing the symptoms of our provings than Dr. Dunham, and his studies in this direction should be collected in one volume to his memory. *His extreme modesty and sense of justice* only deterred him from publishing a work on *Materia Medica*, for he has often said, 'I will never publish a work on this subject as long as Hering lives.'

"In our society work, *who* can fill his place? Alas, it was this overexertion that finally prostrated him. His life has been, in short, a record of brief periods of hard work, divided by long periods of illness, prostration, and compulsory retirements.

"We mourn the loss of a genuine friend, a just and conscientious man, and the school to which we belong loses one of its most active and able champions."

The *Investigator* of March 15th, 1877, contains the following well-merited tribute:

"IN MEMORIAM.—I never saw his face, I never heard his voice; but his face is to me as the face of an angel, and his voice is as the music of the lyre of Orpheus. I shall miss him; not as one who leaves his home, not as one is missed by those to whom he has personally ministered in a thousand nameless ways, and then, gathering his robes about him, lies down to his last sleep. No, not so. I shall not miss the pressure of a heart-warmed hand, but I shall miss him as the drooping plant misses the refreshing dew, or as the fainting heart the cheering accents of love. Carroll Dunham is here no longer to furnish food for thought; no longer with keen, analytical touch to unlock the mysteries of the healing art; no longer to cast over the entire brotherhood the mantle of charity, wide as the race. And yet he is here, in the record of the past, and that record is not likely to be lost in the years that are to come. That the distinguishing characteristics which shone so resplendently in the life of that superb man may serve to stimulate those who tread the same paths, and who, with less of strength, contend for the same prize, I am sure is not only the wish of the writer but of thousands of others, who, like him, do mourn.

J. K. C."

The *Allgemeine Homœopathische Zeitung*, of March 13th, 1877, sorrows thus:

"Carroll Dunham is no more. He died February 18th at his country-seat near New York from morbus Brightii, which developed itself out of a diphtheritis. Combining with most thorough knowledge the greatest modesty and personal amiability he enjoyed fully the esteem of his colleagues and the love of all who ever came in contact with him. The grievous loss which our school sustains by his death will be felt by every one acquainted with his scientific labors, or even only with the opening address delivered by him only a few

months ago at Philadelphia. It was the dying song of a great man, animating and cheering to all who had the privilege of listening to it. The mental and bodily strain, in consequence of his presidency of the World's Congress, were too much for his already weakened constitution. Failing to recuperate he succumbed easily to disease. Let us honor the memory of this true and good physician thus, that we carry out the legacy left to us in his address. *Requiescat in pace.*

“THE EDITOR (DR. LORBACHER).”

The *Internationale Homœop. Presse*, after giving the history of the last illness of Carroll Dunham, remarks:

“How great the loss is, which by his death not only the homœopathy of North America, but also of Europe, suffers, is felt already now by all those who, without the least envy, agree that none has ever done so much in America for the spread of our school than our departed colleague. Short as his life was, still it was full of energetic and successful labor. What he might have accomplished if a longer life would have been allotted to him, we may easily judge from the labors left to us as a priceless heritage. All who knew him could only love him. Ever ready with his valuable counsel, given in such a mild, unassuming manner, is it a wonder that in the hour of need his friends looked up to him for assistance. His knowledge and his penetrating insight embraced not only medical art and science, but all sciences, literature, and art; and in all their various branches his counsel was frequently asked by his friends.

“A premature death took him from us. It will be a long while before we see his like again; a man full of work, and generally successful; a man beloved and esteemed by the entire profession.

“He will live forever in our memory.

“CLOTAR MÜLLER.”

I received from Dr. Gerstel, of Vienna, the following letter.

S. LILIENTHAL, M.D.: Pardon me in neglecting so long to reply to the kind letter you wrote me in the name of our late, but never to be forgotten, Carroll Dunham. It is a sad occasion which gives me the opportunity to open a correspondence with you, but be assured that we also feel your loss, a loss so great, so immense, especially for those who enjoyed the great privilege of communing freely with our departed friend, of whom it may be truly said, that there is none in our school who can take his place.

At our society meeting of the 23d of March, resolutions of condolence were passed, and those who knew him spoke feelingly of this our great loss. Peace to his ashes!

Yours respectfully,

DR. GERSTEL.

WIEN, March 27th, 1877.

The *London Homœopathic World* mourns thus our loss :

"Though each succeeding year brings fresh thoughts, fresh power, fresh impulse to the advancement of our noble cause, yet each succeeding year takes away with remorseless grasp some champion of that cause. Our gains are gradual, and therefore less obvious; but our loss is sudden like the lightning flash, blinding, and at times unintelligible. The news of Dr. Carroll Dunham's death is a lightning flash that blinds and that for the moment we cannot understand, but must patiently accept.

"We learn that our distinguished colleague's death was due to Bright's disease, the sequel of an attack of diphtheria, from which he had suffered some months previously. We can trace back a little further the possible seeds of death, which were sown when the World's Homœopathic Convention was held at Philadelphia, where our colleague delivered his masterly presidential address. The tax on his mental and physical powers during that memorable time told severely upon him, and so after awhile he retired to his country seat, near New York, for rest, wearied in body, but still ever active in mind. And then after a few months' illness, after a little waiting and a little watching, the angel of death came near and took his hand, with a smile, to lead him gently forth into the silent land. The world of homœopathy, of which he was such an honored citizen, can reckon up their loss when they think of his many great and useful labors, and the smaller world of his patients and friends will know their loss when they miss his kindly smile and amiable presence, for he was one who knew not only how to win the respect of his fellow-man, but also learned to gain their love and friendship."

The *London Homœopathic Review* of April most deeply regrets to have to announce the death, at the comparatively early age of forty-nine, of our highly cultivated, earnest, and genial friend, Carroll Dunham.

After reciting his last labors as President of the World's Convention, we read: "We believe we are not saying too much, or detracting in any way from the merit due to others, when we say that the success of this important gathering was chiefly due to the efforts made in that behalf by our deceased friend.

"Dr. Dunham was a well-read and highly cultivated physician, and thoroughly truthful, upright Christian gentleman; one who inspired confidence and esteem in all who came in contact with him. Few, if any, homœopathic physicians possessed a more thorough or more extensive knowledge of the *Materia Medica* than he did; few, if any, were better able to expound and teach this difficult and important branch of medical science than he was.

"Dying at the comparatively early age of forty-nine, living a life more or less constantly exposed to illness, physically incapable of enduring the strain of continuous hard work, possessing a spirit for work far in excess of the physique he was endowed with, he nevertheless has done more to promote a sound knowledge of homœopathy than many, very many, whose time, opportunities, and strength have been far greater than fell to his lot.

"The loss of Dunham is great. It is one which will be felt, not only in the

country which claimed him as one of her citizens, not merely by his professional brethren around him, but by all the homœopathic practitioners the world over. No homœopathic physician was better known or more highly esteemed than he was. None will be more deeply or widely regretted than he will be."

The *British Journal of Homœopathy* for April, 1877, feels keen regret to head its obituary notices with the name of Carroll Dunham.

"Only fifteen months ago we congratulated the World's Convention on having made choice of him as its President; only six months ago we reproduced in our pages the address delivered by him in that capacity at Philadelphia. He had, indeed, thus attained his zenith; but we trusted it was only to shine for many a year yet, and bless with useful light. Alas! sudden night has quenched that radiance, and we are left to mourn its absence.

"Carroll Dunham was the central point to American homœopathy; he was the life and soul of all good work that was done in connection with it, the friend and helper of all, alike the preacher, and the example of the physician's highest duties. Dr. Hering well surnamed him 'the peacemaker;' and he has had, even here, the blessing which rests upon such, in the love and honor with which his colleagues of every shade of opinion have long looked up to him.

"The writer of these lines had recently, for a brief space, the opportunity of knowing Dr. Dunham, not merely as a public character, but as he was in private and amongst his family. No brighter or more gracious image is present to his memory than that which he then saw. You felt yourself in company with a mind gifted and cultured considerably beyond the average range, but joined to a heart which was richer still. There was something singularly winning about his manner; and this outward charm was but the index to the sunny sweetness and golden charity which pervaded his whole nature. There can be none who knew what he was to whom the world will not be somewhat darker for his departure from it."

The French, Italian, and Spanish journals have not come to hand as we go to press with our last form, and our memorial is therefore incomplete. But we know very well what they will say, for our Italian colleagues loved him well, as Dunham passed his last vacation in sunny Italy.

Farewell, my great, my beloved friend and teacher! For fully five-and-twenty years Carroll Dunham was to me the prototype of the "good physician." Oh, there is none in this wide, wide world who can take his place, none who can be so trusted for counsel at the sick-bed, for none ever understood to combine rare delicacy with vast knowledge as Carroll Dunham did. Beloved by all, trusted by all, honored by all, he leaves a heritage to his children of which they may well be proud, a name which will never be forgotten as long as homœopathy will stand, nay, as long as medical science and art looks for truth in the articles which emanated from his pen. Oh, do not say our Dunham sleepeth the sleep of death; no, nevermore! His pure spirit has

arisen and soars higher and higher in the realms of constant progress, but even to us who mourn him yet, till we are allowed to join him again, even to us Carroll Dunham still liveth.

Let us try to follow this glorious example which he has set before us. Let us work, as he did, while it is yet daylight; let us be true to ourselves and charitable to those who differ from us, as he did while sojourning with us, so that it may also be said of us, as it has been said of him,

“ Well done, good and faithful steward.”

S. L.

Reviews and Bibliographical Notices.

Encyclopedia of Pure Materia Medica, Vol. V, Hydrocyanic Acid to Lycopersicum, by T. F. Allen, M.D. Boericke & Tafel, 1877.—A few weeks ago I was called in consultation in a case of malarious enlarged liver and spleen. The patient had suffered for nearly a year severely from gastrodynia, for which neither large quantities of brandy nor morphine injections gave relief any more. After leaving off the narcotic, the natural sequela, debilitating diarrhoea, succeeded; sensation as of a rope in epigastric region; flatulency up and down, the latter very offensive; stools mushy, fermented, sour.

The usual remedies had so far failed to give more than transient relief. I recollected that Prof. Liebold, years ago, recommended *Agaricus muscarius* for enlarged liver. Coming home, I looked in Jahr's *Symptom. Codex*, an old, well-worn, trusty friend, but failed to find the corresponding symptoms, nor did I fare better by looking for them in Hering's *Condensed Materia Medica*. Half despairing already, I took down Allen, and—*veni, vidi, vici*—every symptom corresponded to the case in hand, and as usual the well-selected remedy hardly ever disappoints to relieve at first, and then to aid in restoring health. An outline of the remedy we will always find in Hering, and we cannot be too thankful to this great and good patriarch for this invaluable gift; but to get at the finer shades and tints of the disease, as well as of the remedy, we need the full *Materia Medica*, as it is too frequently the case that an apparently insignificant symptom will decide the choice between two remedies.

For a wonder, either Allen or the printer made a mistake, but it can be easily rectified. Strike all the symptoms of No. 14 out under Jodum, and the publishers will attend to it, that you can paste them in their right place under Indium. It is an honor to the editor, as well as to the printer, that so very few errors can be detected, and part of this honor certainly belongs to the proof-readers of the excellent printing establishment of Sherman & Co., Philadelphia.

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