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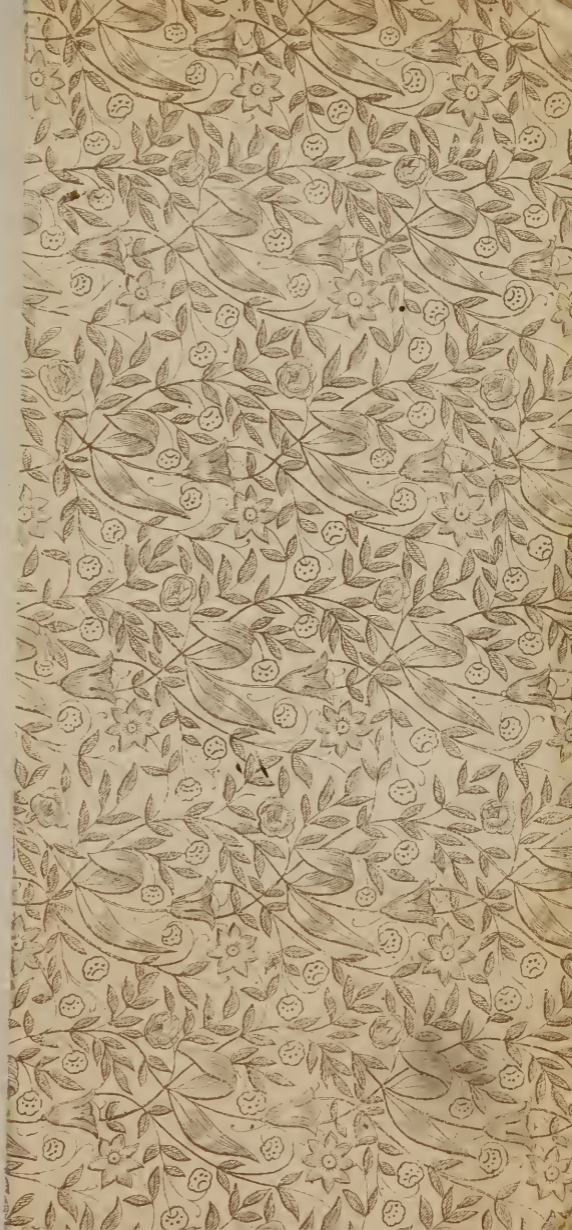
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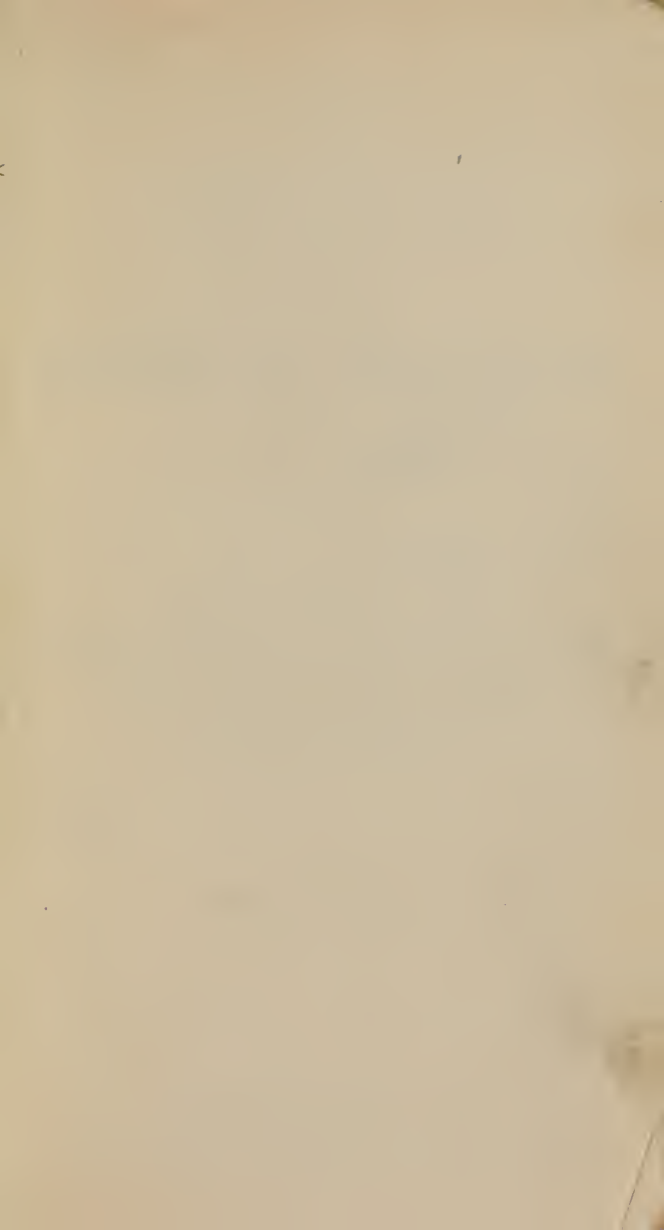


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THE
KEY NOTES
OF
MEDICAL PRACTICE

BY

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SECOND EDITION

CHICAGO
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1885



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TO
RICHARD HUGHES,
WHO
HAS DONE
SO MUCH TO LEND
VALUE AND CHARACTER
TO THE SCIENCE OF MEDICINE,
IN GRATEFUL ACKNOWLEDGMENT OF MANY FAVORS,
AND IN MEMORY OF A PLEASANT DAY
AT BRIGHTON BY THE SEA,
THIS BOOK IS INSCRIBED
BY HIS SINCERE
ADMIRER AND
FRIEND,
THE AUTHOR.

PREFACE.

This book is intended to be a pocket companion for those who need it. The effort has been to include in its pages that part of medicine which makes up the bulk of the physician's daily practice. And, in addition, I have endeavored to introduce much which forms part of a practical medical education, and yet is not taught in the college lecture-room; what older physicians have gradually accumulated only after years of experience.

Directions for the management of the most pressing emergencies, medical, surgical, and obstetric, are carefully given, while chronic diseases and rare cases, in the treatment of which there is always time and necessity for consulting larger works, receive no attention. A hand-book must treat of rules, not of exceptions.

An effort has been made to give additional weight to many recommendations by attaching to them the names of those who are widely and favorably known in our profession. Thus I have made frequent reference to our most eminent systematic writer, Richard Hughes, of England, who enriches and illuminates every subject which he touches. Bachr, Jousset, Lilienthal, Dunham, Jahr, Bayes, and numerous others, have been called upon for the results of their experience.

I am much indebted to Dr. Chas. Adams, Attending Surgeon to Cook County Hospital, for very many contributions to the Part on Surgery, and the accuracy of the

entire subject may be relied upon, since it has all undergone at his hands a careful and thorough revision.

Dr. F. R. Day, formerly Resident Physician, Cook County Hospital, has prepared the sections on Fractures, Dislocations, and Amputations, for the revised edition, and also favored me with the drawings from which the illustrations have been prepared.

Dr. J. H. Buffum, author of "Diseases and Injuries of the Eye," has very kindly prepared for me the article on that subject, thus rendering it worthy of entire confidence.

If those who have been many years in practice should seek in vain between these covers for remedies which they have at times found to be of signal service, let them reflect that if one thousand physicians should each set about preparing a work of this character there would be produced a thousand different books, with as great a variety of details as there were authors, and yet there would undoubtedly be a general agreement upon the *leading remedies* for each and every disease. It is this common ground that I have attempted to occupy.

CH. GATCHELL.

CHICAGO, MARCH, 1885.

PART I.

MEDICAL PRACTICE.

FEVERS.

FEVER AND CHILL TEMPERATURES.

- 122° Fahr.—Highest ever recorded.
107° or over—Death.
106° to 107°—Almost always *fatal*; except in intermittent.
105° to 106°—Intense fever; recovery doubtful.
104° to 105°—High fever; dangerous if long continued.
102° to 104°—Active fever; recovery the rule.
101° to 102°—Moderate fever.
100° to 101°—Slight fever.
99° to 100°—Feverishness.
98.6° — Normal.
97° to 98°—Subnormal; not grave.
95° to 97°—Collapse; in *itself* without danger.
93° to 95°—Algid collapse; *great* danger—recovery *possible*.
92° to 93°—*Fatal* collapse.

CONTINUED FEVERS.

A Continued Fever is one which is marked by a constantly elevated temperature, without sufficient remission or exacerbation to alter the course from that of a *continuous* action.

TYPHOID FEVER.

SYNONYMS: *Enteric Fever; Abdominal Typhus.*

PROGNOSIS.—*Favorable:* Pulse of 110 to 115, with *distinct first sound of the heart*; temperature not higher than 104° to 105° F. on the eighth day; abdominal symptoms mild, and ceasing early. *Unfavorable:* The continuance of *abdominal* symptoms—so long as these last, the patient is not out of danger; pulse 120 to 130, with *feeble apex beat*, and *indistinct first sound*; capillary bronchitis; hæmorrhage from bowels; severe cystitis; bed-sores; perforation of intestine (almost invariably fatal). Prognosis

also bad in *fat* persons, *gouty* subjects, and *alcoholists*; also if complicated by disease of the kidneys, organic disease or degeneration of the heart, œdema of the lungs, pyæmia, or gastric catarrh.

COMPLICATIONS.—Pneumonitis; pleuritis; perforation of bowel and peritonitis; intestinal hæmorrhage; parotitis.

CAUSES OF DEATH.—Excessive hæmorrhage; perforation and peritonitis; pneumonitis; asthenia.

LEADING REMEDIES.

Baptisia.—To be given as soon as typhoid fever is suspected. Face dark-red, with a besotted expression; dull, stupefying headache, with confusion of ideas; tongue brown and dry; pulse full and soft; dull, aching pains. Also, throughout the course of the disease, to reduce the high temperature.

Give in the period antecedent to the full development of the intestinal affection.—*Hughes*.

Bryonia.—Violent, stupefying headache; restless sleep, with moaning and groaning; face red and swollen; delirium day and night, with strange fancies; desire to escape; tongue coated with a yellowish fur, with parched lips, great thirst, vomiting, tenderness at pit of the stomach, and constipation. Of no use after the diarrhœa has set in.

Belongs to the treatment of mild cases, and “those in which the brain is not altogether deprived of its functional power.”—*Baehr*.

Mercurius.—Tongue loaded with thick, moist, creamy coating; painful sensibility of whole abdomen; diarrhœa; stools copious, liquid, flocculent, sometimes a little bloody; clammy, fetid perspiration.

Indicated by predominance of abdominal symptoms.—*Joussel*.

Must be suspended as soon as *tongue becomes dry* and delirium manifests itself.—*Lilienthal*.

Rhus tox.—Mind dull and clouded; incoherent muttering, or active delirium; headache; epistaxis, tongue brown and *dry*, with red tip; lips, teeth, and tongue covered with *sordes*; skin clammy; general trembling; debility, and prostration; pulse weak and slow; abdomen bloated; frequent involuntary, copious, yellowish evacuations. This remedy belongs to the treatment of the intestinal stage of the disease, after diarrhœa has set in. Also in pneumo-typhus, with epistaxis, severe bronchial affections, dirty-looking, sanguinolent expectoration.

Rhus corresponds to typhus of intense character, beginning with chill, followed by burning heat, and a copious diarrhœa, which sets in early.—*Baehr*.

Arsenicum.—Extreme prostration, and great emaciation; face pale and shrunken; falling of lower jaw; tongue dry and cracked, black, with inability to protrude it; mouth covered with *sordes*; great thirst; decubitus; sopor; picking at bed clothes; distended abdomen; pulse small, almost im-

perceptible; irregular action of the heart, with indistinctness of first sound; violent, almost continuous relaxation of bowels; discharge *very fetid*; breathing short and anxious; rattling cough; fetid breath. Symptoms of decomposition of the blood set in early, such as nose bleed, bloody diarrhœa, bloody sputa, petechiæ on the skin.

This remedy should be given early, without waiting for the disease to develop its pernicious character.

A remedy of priceless value.—*Ruddock*.

Sometimes restoring the patient when almost beyond hope.—*Laurie*.

Muriatic ac.—Extreme prostration; patient stupid and unconscious; sliding down in the bed; low, muttering delirium; picking at flocks; inability to protrude the tongue; depression of lower jaw; turning up of the eyes; involuntary stools and urine.

SPECIAL REMEDIES.

Opium.—Coma, stertorous breathing.

Hyoscyamus.—Coma-vigil, or loquacious delirium.

Terebinthina.—*Tympanites*, and hæmorrhage of the bowels.

Well nigh specific for tympanites.—*Hughes*.

Belladonna.—Great cerebral congestion and furious delirium.

Arnica.—Low condition, with involuntary discharges.

Antimonium tart.—Pneuno-typhus, with great rattling in the chest, and dyspnœa.

Phosphorus.—Pneuno-typhus, with violent bronchitis, hepatization, hypostasis, and laryngitis.

Unsurpassed by any other medicine.—*Baehr*.

GENERAL MEASURES.

Sick-room.—Let it be a large, *well ventilated*, upper room with open fireplace, if possible. Make free use of disinfectants, and look well to sewer pipes, or other sources of impure air. Immediately remove all soiled clothing, and immerse in chlorine water, and boil within twenty-four hours; all other articles should be *burned*. Receive all *discharges* into a *porcelain* bed pan, and cover immediately with a solution of sulphate of iron or chloride of zinc. As soon as the vessel is removed from the patient, cover it with an old cloth, to prevent exhalations from escaping into the room, and *immediately*

Dispose of Discharges. in the country, by emptying bed pan into a freshly dug hole, *far removed* from a privy or well, and cover with dry earth. If in the city, empty it into a water-closet, which must be used for *no other purpose*. At frequent intervals flush this closet with large quantities of solution of sulphate of iron or chloride of zinc; or still better, let all discharges be *burned*.

Bed.—If possible have two beds, and night and morning change the patient, airing one while using the other. *Avoid* the use of feather beds—too soft a mattress favors bed-sores; hair mattress best. Cover the mattress with rubber cloth, place over this the sheet, and a small “draw sheet” under the hips. Let the pillows be small, rather hard, and so arranged as to support shoulders and expand the chest.

Nursing.—See to it that the nurse gives the patient sufficient drink to slake thirst. Often when the patient is delirious or comatose this is neglected. Have the *sordes* washed from the lips, teeth, and tongue with a soft cloth, moistened in lemon-water, as often as it accumulates. Examine the back and hips daily for redness. If it occur, have the spot washed four times daily in alcohol and water, dry thoroughly, dust with powder, and use air cushions. Do not permit the patient to stand up, or in any way exert himself.

Bathing.—Sponge the entire body several times daily with tepid water. If the temperature rise to 103° F. in axilla, put the patient into a warm bath, 80° to 90° F., gradually lower the temperature of the bath by cold water till the desired effect is produced. May have to go to 60° F., but not lower. If the temperature fall rapidly, remove the patient; if slowly, wait till the temperature in axilla reaches 101° F. Do not use the bath later than the second week. *Cold pack* answers same purpose. Spread a comfort on the bed, over this blankets, over these a sheet wrung out of cold water. Lay the patient on the sheet, wrap him in it, then fold over him the free edges of the blankets and comfort, making all snug. Leave him till the sheet becomes warm. This is a very efficient method of reducing temperature, and for many reasons it is to be preferred to the cold bath.

Diet.—Highly important. *Exclusive milk diet best.* Regularly every two hours give the patient a glass of milk, or its equivalent at convenient intervals. If milk disagree, try it with lime-water, scalded, iced, or otherwise vary the method of administration until a form is found which the patient can take and digest. Let the patient draw the milk through a bent glass tube. If for any reason the patient cannot take milk, give other food, being careful to have it *fluid in form, easy of digestion, and highly nutritious.* In early days give beef broth, mutton broth, chicken broth; later, food which is *stimulating* as well as nourishing—beef tea, wine whey, *café au lait*, or egg and coffee; again come back to broths and gruels after the period of depression has passed. Vary the diet to suit the caprice of the patient. But remember that the milk diet is superior to all others, and need not be departed from if it agree with the patient.

Examining Patient.—Notice particularly at each visit—pulse; nature of heart-beat; state of abdomen; temperature; number and character of discharges; respiration, and the state of the lungs.

Convalescence.—*Especial care is demanded during this period. Avoid use of vegetables. No solid food must be taken until the stools are consistent and fecal. The slightest error in diet may excite a relapse.*

TYPHUS FEVER.

SYNONYMS: *Ship Fever; Jail Fever.*

PROGNOSIS.—Always grave. *Unfavorable:* High temperature; frequent pulse; early, furious delirium, or early stupor; previous debility; in *alcoholists* usually fatal. *Favorable:* Youth; moderate temperature and pulse, and mild nervous symptoms.

COMPLICATIONS.—Pneumonia and swollen parotid glands most common.

CAUSES OF DEATH.—May result from meningitis; pneumonitis; capillary bronchitis; gangrene; asthenia and paralysis of the heart; nephritis.

LEADING REMEDIES.

Baptisia.—Early stage, with *high fever* and intense character of the onset.

Phosphoric ac.—Great *nervous depression*, with but *slight febrile* excitement or signs of blood poisoning; complete apathy and indifference; quiet delirium, with stupefaction, deafness, dull, staring look, epistaxis; distension of abdomen, with rumbling and gurgling; watery, grayish diarrhœa; thick, cloudy urine; profuse perspiration; pulse weak, small, frequent, intermitting.

Phosphorus.—For a *still lower grade* of nervous depression. Eyes hollow and sunken; frequent and copious epistaxis; dryness of mouth, gums stand off from teeth, and bleed easily; vomiting of watery, bilious, or slimy masses; loud rumbling and meteorism of abdomen; grayish or black discharges, from decomposed blood; roseola spots, or ecchymoses. Also in pneumonic complication, the chief remedy.

May save life at the utmost extremity.—*Hughes.*

Arsenicum.—Intense febrile toxæmia. Great restlessness and anxiety; tongue black, dry, and hard; speech unintelligible; excessive thirst; meteorism; involuntary stools and urine; discharges brown, watery, foul; hæmorrhage from bowels; cold, clammy perspiration and decubitus. Also for kidney complications, with suppression of urine.

SPECIAL REMEDIES.

Opium.—Stupor or coma.

Mercurius bin., Rhus.—Parotitis.

Rhus, Muriatic ac.—For milder forms of febrile toxæmia.

Belladonna.—Headache, cerebral congestion, and active delirium.

Stramonium.—Delirium so furious as to threaten the patient's exhaustion.

GENERAL MEASURES.

Typhus being highly contagious, strictly quarantine the patient, and observe all antiseptic precautions. Give an abundance of *fresh air*; remove all windows, regardless of cold, and keep the patient well protected with blankets. Guard against bed-sores. In noisy streets, stuff the patient's ears with cotton. If the temperature rise to over 104° F., put the patient in a bath ten degrees below the temperature of the body, and gradually reduce the temperature of the water to 70° F., till the bodily temperature falls to 101° or 102° F. If the heart's action is weak, with much prostration and feeble circulation, give an occasional dose of brandy—*not more* than one ounce, altogether, in the twenty-four hours.

Diet.—Of greatest importance to aid nutrition. Begin early, and give small quantities of very nutritious food regularly and *persistently*. Milk is the best. Also use beef tea and broths. If necessary, support by nutrient enemata.

DIFFERENTIAL DIAGNOSIS.

TYPHOID.

ENDEMIC.

Advent insidious, with general malaise; headache; chill rare; several days before patient takes to bed.

Temperature.—Little rise at onset; maximum about 7th day; exacerbates.

Eruption.—Lenticular spots, *bright rose color*; successive crops; abdomen.

Delirium appears late; low muttering.

Countenance pale, olive, leaden.

Emaciation great.

Bowels.—*Tympanites*, and "pea-soup" diarrhœa.

Duration, 21 to 40 days.

Terminates by *lysis*.

TYPHUS.

EPIDEMIC.

Advent sudden, with intense chill; steadily increasing headache, with great prostration.

Temperature.—2d day 104°; 105° to 107° on the 3d day; remains high to end.

Eruption.—Small, slightly elevated, called "*mulberry rash*"; remains throughout disease; sides of chest and extremities.

Delirium active from the first.

Countenance dull, heavy; late, mahogany color.

Emaciation slight.

Bowels.—Constipated; no tympanites.

Duration, 14 days.

Terminates by *crisis*.

CEREBRO-SPINAL FEVER.

SYNONYMS: *Spotted Fever; Cerebro-Spinal Meningitis.*

PROGNOSIS.—Grave. *Unfavorable:* Extensive hæmorrhage into the cutis, with marked signs of vital prostration. More fatal among infants and young children than youths and adults. Continued rapidity of the pulse unfavorable. *Favorable:* Cessation of headache; free perspiration.

COMPLICATIONS.—Pneumonitis; nephritis; œdema, and congestion of the lungs.

CAUSES OF DEATH.—Asphyxia, from lesion in respiratory nerve-center; asthenia; œdema of lungs; necræmia.

LEADING REMEDIES.

Gelsemium.—Early in the attack. Fever; great languor and drowsiness; obscuration of sight; vertigo; respiration slow and sighing; pulse soft and feeble; complete loss of muscular power.

In my hands this has been one of the most efficient remedies.

Veratrum vir.—Severe frontal headache; violent vomiting; pain in stomach; convulsions; retraction of head; opisthotonos; rolling of eyes, dilated pupils; pulse labored, slow, and irregular.

Used with great success in many undoubted cases.—*Hale.*

Belladonna.—Violent headache; drowsiness; delirium; cutaneous hyperæsthesia; face red and bloated; boring of head into pillow; spasmodic distortion of face; grinding of teeth; cold extremities.

Cicuta.—Dilated pupils; staring look; jerking of eyeballs, and muscles of face, arms, and hands; deafness; pale face; head retracted; rigid spine; dysphagia; insensibility.

Is considered by many to be nearly a specific in this disease.—*Lilienthal.*

Hydrocyanic ac.—Fulminant cases. Patient stricken down suddenly; loss of consciousness; dyspnoea; gasping; small pulse; purple face; tonic spasms; low moaning; fluttering pulse.

Hyoscyamus.—Delirium and convulsions.

Opium.—Face bloated; eyes fixed; half-closed lids; deep, slow breathing.

Actæa.—Spasms continue after acute symptoms have subsided.

Arsenicum.—Septic symptoms; foul discharges from the bowels; signs of decomposition of the blood; petechiæ.

Rhus, Bryonia.—Typhoid-like state; low fever, etc.

GENERAL MEASURES.

Most important to get up *free diaphoresis* early. Put the patient into a *hot bath*—104°–106° F.—for a short time, then wrap him in *warm blankets* until *free perspiration* is induced. Repeat if the skin again becomes dry and hot. Ice-bag to the *head*.

Diet.—Give concentrated liquid food freely,—milk, beef tea, broths. Nourish by enemata if the patient cannot take food by the mouth.

Look to the state of sewage and drainage, and provide for good ventilation of the dwelling. Observe great care during convalescence; relapses are generally fatal.

SIMPLE CONTINUED FEVER.

SYNONYM: *Gastric Fever.*

PROGNOSIS.—In absence of complications, always favorable.

LEADING REMEDIES.

Baptisia.—Chilliness; fever; violent headache; great languor; loss of appetite; great thirst; thick, white coating on tongue; nausea; vomiting; epigastrium and abdomen sensitive; constipation, with later diarrhœa.

Baptisia is a true specific. Defervescence and crisis will follow its use in a very short time.—*Hughes.*

Arsenicum.—Later in disease. The tongue dry and brownish; abdomen distended; great thirst; prostration; restlessness; diarrhœa; burning pains in stomach; pale face; cold extremities.

Bryonia.—Vertigo; nausea and faintness on sitting up; fullness in forehead, as if everything would be pressed out; splitting headache; lips parched, dry, and cracked; tongue coated; constipation; great irritability.

Mercurius.—Pale, yellow, earthy color of face; tongue thick, yellow coating; fetid breath; gums swollen; profuse secretion of saliva; region of stomach sore to touch; dark-red urine; diarrhœa.

Antimonium tart.—Empty or putrid eructations; constant nausea and inclination to vomit; loss of appetite; loathing of food; great secretion of mucus; apathetic state, excessive debility and prostration; alternate mucous diarrhœa and constipation.

CONSULT —*Nux v., Puls., Iris, Ipec.*

GENERAL MEASURES.

Plain and simple food must be given, as every error in diet is apt to cause a relapse.

ERUPTIVE FEVERS.

The **Eruptive Fevers** are distinguished by a high degree of contagion; a period of incubation; intense fever; a characteristic eruption, and immunity after one attack.

SCARLET FEVER.

SYNONYM: *Scarlatina*.

PROGNOSIS.—Depends upon character of the prevailing epidemic. In severe cases always uncertain. *Unfavorable:* Temperature of $105^{\circ}+$; dyspnoea; cold surface; livid hue of the eruption; suppurative pharyngitis; persistent vomiting; complete suppression of the urine. Also bad in the very young, in organic disease, and if complicated.

LEADING REMEDIES.

SCARLATINA SIMPLEX.—*Acon.*, *Bell.*, *Rhus*.

SCARLATINA ANGINOSA.—*Apis.*, *Merc. iod.*, *Amm. carb.*, *Mur. ac.*, *Lach.*

SCARLATINA MALIGNA.—*Ailanth.*, *Merc. cyan.*, *Ars.*, *Mur. ac.*, *Cupr. ac.*, *Rhus*.

Aconite.—Has a limited use early, to subdue arterial excitement.

Belladonna.—In the sthenic form the eruption smooth and shining, with great vascular and nervous excitement; congestion of brain, and delirium; throbbing of carotids; eyes injected; face fiery red: tongue white, with red edges, or red, with raised papillæ; fauces and tonsils inflamed and swollen; external swelling of neck. Of no benefit in adynamic cases.

Rhus.—*Scarlatina simplex*, when the eruption is military, the rash being interspersed with fine red points, and sometimes fine vesicles. Also, in the adynamic form, eruption dark; eyes swimming; tongue dark-brown and dry; lips and teeth covered with *sordes*; drowsiness; low, muttering delirium; epistaxis; swollen parotids, and thin, offensive discharges from bowels.

I have used *Rhus* in these cases with great success.

Apis.—Fever of low type. Tongue deep red, and covered with blisters; tonsils œdematous, swollen, and ulcerated; abdomen sore to touch; slimy and bloody discharges from bowels; urine scanty and dark-red; micturition frequent and painful; loss of consciousness; delirium; sopor. Also for œdema and dropsy.

Ammonium carb.—Swelling of parotid, and lymphatic glands of neck; throat dark-red, with tendency to gangrenous ulceration.

Mercurius iod.—Much glandular swelling, with stiffness and pain; salivation; fetor of breath; rapid and great prostration; commencing ulceration of throat.

Ailanthus.—Malignant cases, the patient being suddenly taken with violent vomiting; severe headache; intolerance of light; hot, dark-red face; rapid, small pulse; high temperature; drowsiness; muttering delirium; dark, livid, miliary rash in patches.

Directly specific, and of eminent value.—*Dr. Madden.*

Arsenicum.—The eruption grows suddenly pale; skin cold; small pulse; rapid prostration; putrid sore-throat; great restlessness; dyspnoea; fetid, involuntary discharges from the bowels.

Cuprum ac.—Sudden retrocession of eruption, followed by vomiting, convulsions, rolling of eyes, distortion of face, sopor, and delirium; signs of metastasis to brain.

Employed with gratifying success.—*Dr. Drummond.*

Muriatic ac.—Malignant cases. Severe ulceration of throat; fetid breath; acrid discharges from nose; soreness and vesicles about nose and mouth; eruption faint and livid; flushed cheeks; eyes dull-red.

Lachesis.—Throat swollen, ulcerated, livid; great fetor of breath, the system seeming to be re-inoculated from the ulcerated sore throat, with general prostration; quick, feeble pulse; low, muttering delirium, and jactitation.

It has never disappointed me.—*Hughes.*

Cuprum ac.—Retrocession of eruption; quick, small, irregular pulse; low temperature; sopor; rolling of eyes; facial distortion; spasm of various muscles; cold face; blue lips; convulsions.

SPECIAL REMEDIES.

Retrocession of eruption.—*Ars., Cupr. ac., Camph.*

When the fever degenerates into a low, typhoid-like condition.—*Rhus. Ars., Lach.*

Stage of desquamation.—*Ars., Sulph.*

Nephritis and dropsy.—*Ars., Apis, Terebin.*

Discharges from ears.—*Mur. ac., Hep. sulph., Sil., Graph., Merc. dulc.*

Discharge from nose.—*Mur. ac., Aur., Ars.*

Inflammation of eyes.—*Acon., Sulph.*

Glandular swellings.—*Rhus, Lach., Merc.*

GENERAL MEASURES.

Quarantine the patient, and remove other children. Put the patient in an *upper* room, large, *well ventilated*, and free from upholstered furniture and drapings. Use all anti-

septic precautions with clothing, utensils, and discharges. Sponging the body frequently with tepid water moderates the fever, allays restlessness, and favors sleep. Promote free action of the skin. Watch the state of the urine, and anticipate kidney complication. Use caution until recovery is fully established.

Diet.—Light and nutritious. Milk, broths, gruels, toast, etc. Drinking large quantities of water favors action of the kidneys. In low cases feed as in typhoid.

MEASLES.

SYNONYMS: *Morbilli; Rubeola.*

PROGNOSIS.—If uncomplicated, favorable. *Unfavorable:* In tuberculous subjects, and cachectic constitutions; black measles; complicated by epistaxis, diphtheria, capillary bronchitis, or broncho-pneumonia.

LEADING REMEDIES.

Aconite.—High temperature, and other febrile symptoms—hot skin, red eyes, intolerance of light; general malaise. In simple cases the only remedy required.

Pulsatilla.—Eyes red and watery, sensitive to light; thick, yellow discharge from nose; dry mouth, no thirst; loose cough; rumbling in bowels, and diarrhœa.

Of high repute for the diarrhœa.—*Hughes.*

Euphrasia.—Streaming of hot, burning tears from the eyes, with great photophobia; profuse running from the nose, without burning.

Invaluable for the nasal and conjunctival catarrh.—*Hughes.*

Bryonia.—Eruption retarded, or retrocession of eruption, with oppression of chest, and laborious breathing; dry cough, with shooting pains in chest.

Remarkably successful in bronchitis.—*Jousset.*

Ipecac.—Eruption retarded or suppressed, with nausea or vomiting, and rattling of mucus in the chest. Will generally stop the epistaxis.

Veratrum vir.—Convulsions before the eruption; congestion of lungs during febrile stage.

Arsenicum.—Adynamic and malignant cases. Burning heat of skin; quick, small pulse; great anxiety; restlessness; sudden retrocession of rash; pale, bloated face; great sinking of strength.

Camphor.—Rubeola fulminans. Face grows suddenly pale; skin cold and purple; stiffness of body, utter prostration and collapse. Give drop doses, frequently repeated.

SPECIAL REMEDIES.

Phosphorus.—Bronchitis or pneumonia.

Rhus.—Low fever; dry, brown tongue.

Kali bi.—The hoarse, laryngeal cough.

Cuprum ac.—Retrocedent, affecting brain.

Belladonna.—Cerebral congestion, or sore throat.

Sulphur.—To promote recovery; strumous subjects.

Mercurius.—Glandular swelling; ulcerations; dysentery.

GENERAL MEASURES.

Quarantine the patient. Room well ventilated, with even temperature. Darken the room while the eyes are sensitive. To relieve itching and burning of skin, cool water spongings. Warm bath to bring out delayed eruptions. If the temperature rise to 103°–104° F., reduce it by cool sponge baths. Protect the patient against cold air and sudden changes of temperature, and keep the *chest* well protected. Diet of milk and broths.

SMALL POX.

SYNONYMS: *Variola; Varioloid.*

PROGNOSIS.—Depends on the type of the disease. In *variola discreta*, uncomplicated, favorable. In *variola confluentes*, grave. *Unfavorable:* In the intemperate; syphilitic; extremes of life (recovery rare after sixty); lung complications; *inflammation* of skin *between* the pustules; epistaxis and other hæmorrhages; scanty urine early; intense secondary fever between ninth and twelfth days. In *variola hæmorrhagica*, recovery rare.

CAUSES OF DEATH.—(Edema glottidis; general bronchitis; pneumonitis; acute fatty degeneration of the kidneys; asthenia.

LEADING REMEDIES.

VARIOLA DISCRETA.—*Bell., Ant. tart., Sulph.*

VARIOLA CONFLUENTES.—*Sulph., Ars., Phos.*

VARIOLA HÆMORRHAGICA.—*Phos., Ars., Lach.*

Antimonium tart.—One of the most useful remedies; it reduces the fever, the pustules run their normal course. It is also especially useful in pulmonary complications, and for gastric disturbances. Given early, it mitigates the severity of the disease.

Belladonna.—High fever; severe local symptoms; throbbing carotids; injected eyes; photophobia; sore-throat; severe pain in back; starting and jumping in sleep; delirium.

Mercurius.—Maturation impending, and suppurative fever rising. Moist, swollen tongue; ulcerated throat; fetid breath; profuse flow of saliva; dysenteric discharges from bowels.

Arsenicum.—Hæmorrhagic variola; eruption dark; skin blue, or livid; great sinking of strength; small, frequent pulse; extreme thirst, anguish, and restlessness.

Actæa.—Early stage; severe pain in back and eyes; headache; sore, bruised pain all over; exhaustion; nausea.

Hydrastis.—Great redness, swelling and aching of the skin, with very sore throat; intense aching in small of back and legs. Especially useful when ulcers occur on mucous membrane of mouth and fauces.

Sulphur.—Disease pursues an irregular course; pustules become purple or black. Also for period of desiccation.

SPECIAL REMEDIES.

PNEUMONIA.—*Ant. tart., Phos.*

GLANDULAR SWELLINGS.—*Merc. iod.*

LOW, TYPHOID STATE.—*Bapt., Ars.*

BOILS.—*Hep. sulph., Sulph., Phos.*

OPHTHALMIA.—*Merc. cor., Sulph.*

DELIRIUM.—*Bell., Stram., Verat. vir.*

DROPSICAL SWELLINGS.—*Apis., Ars.*

CONGESTION OF LUNGS.—*Verat. vir., Acon., Bry.*

REPERCUSSION OF ERUPTION.—*Camph., Ars., Sulph.*

GENERAL MEASURES.

Complete Isolation. Vaccinate the patient, if this has never been done. *Free ventilation* of the apartment *highly* important. Should be attended by one who has already suffered from the disease. *Cleanliness* and *disinfection* of the strictest kind. In cold weather keep the patient well covered, a fire in the room, but the windows *wide open*. Guard against bed-sores. Give the patient frequent sponge-baths. Do not injure pustules. Let adults wear loose gloves, and bind the hands of children, to prevent scratching. To prevent pitting, keep the patient in a *dark* room, protect the pustules from injury, and *keep* each one well anointed with *Vaseline* and *flour*, made into a paste. *Cold water* compresses to the face and hands often allay the burning pain. If there are ulcers in the mouth and throat, let the patient take bits of ice, and use a mild *Hydrastis* gargle.

Clothing.—After the attack, *destroy all* clothing, and fumigate the room.

Diet.—From the beginning, give a sustaining diet of milk, eggs, meat broths, oysters, and beef tea every three hours. *Fresh, ripe* fruits allowable if the bowels are not affected. For drink, give iced milk, or if this does not agree, lemonade, or raspberry-vinegar water.

DIFFERENTIAL DIAGNOSIS.

SCARLET FEVER.	MEASLES.	SMALL POX.
<p><i>Incubation</i> 1 day to 7 weeks—average, 4-7 days.</p> <p><i>Stages</i>.—Incubation, invasion, eruption, desquamation.</p> <p><i>Invasion</i>.—Headache, vomiting, malaise, sore throat.</p> <p><i>Fever</i>.—Temperature may reach 105°-107°, with great heat of skin and frequent pulse; fever higher during eruption.</p> <p><i>Cerebral symptoms</i> frequent and grave.</p> <p><i>Eruption</i>.—Appears first on neck and chest, 24 hours after invasion; spreads rapidly. Color, <i>bright-rose</i> or <i>deep-red</i>. Finger nail drawn over makes white streak, lasting several minutes.</p> <p><i>Desquamation</i>.—Large patches, especially from hands and feet; itching.</p> <p><i>Tongue</i>.—"Strawberry."</p> <p><i>Face</i> flushed, dry, red.</p> <p><i>Emaciation</i> slight.</p> <p><i>Duration</i> 21-28 days.</p> <p><i>Crisis</i> about 14th day.</p> <p><i>Sequelæ</i>.—Nephritis; dropsy; otitis; ophthalmia; glandular enlargements.</p>	<p><i>Incubation</i> 7-14 days.</p> <p><i>Stages</i>.—Premonitory, eruption, desquamation.</p> <p><i>Invasion</i>.—Chill, coryza, headache, lassitude, cough, fever.</p> <p><i>Fever</i>.—Temperature may reach 105°—falls after eruption.</p> <p><i>Cerebral symptoms</i> usually absent.</p> <p><i>Eruption</i>.—On 4th day appears first on face; spreads gradually; color, <i>rose-red</i> or <i>mahogany</i>; is rough; may be confluent, crescentic, and papular. Line made by finger nail disappears quickly.</p> <p><i>Desquamation</i>.—Bran-like, mealy odor.</p> <p><i>Tongue</i> coated, with red edges.</p> <p><i>Face</i>.—Suffused and watery eyes.</p> <p><i>Emaciation</i> not marked.</p> <p><i>Duration</i> 14-21 days.</p> <p><i>Crisis</i>—None.</p> <p><i>Sequelæ</i>.—Chronic bronchitis; otorrhœa; ophthalmia; phthisis.</p>	<p><i>Incubation</i> 5-20 days—average 10 days.</p> <p><i>Stages</i>.—Incubation, eruption, suppuration, desiccation.</p> <p><i>Invasion</i>.—Chilliness; <i>severe</i> pain in back and head.</p> <p><i>Fever</i>.—Temperature of 106°, with bounding pulse, pain in head and back—relief from eruption. <i>Secondary</i> fever—very high on 8th day—and falls slowly.</p> <p><i>Cerebral symptoms</i> frequent—delirium about 3rd day. Convulsions in children.</p> <p><i>Eruption</i>.—On 3d or 4th day appears first at edge of hair, lips, palate, or fauces. First <i>macule</i>, then <i>vesicle</i>, <i>pustule</i>, which may <i>slough</i>, and leave cicatrix, or form <i>scab</i>.</p> <p><i>Desquamation</i>.—Scabs, crusts, and thick scales; violent itching.</p> <p><i>Tongue</i> coated, swollen, with red edges.</p> <p><i>Face</i> flushed, anxious; photophobia.</p> <p><i>Emaciation</i> great.</p> <p><i>Duration</i> 4-5 weeks.</p> <p><i>Crisis</i> about 21st day.</p> <p><i>Sequelæ</i>.—Chronic diarrhœa; abscesses; glandular enlargements; various diseases of eyeball and eyelids.</p>

VACCINATION.

Caution.—Be sure to use only a *pure* article of *bovine virus*. Keep it in a cool place in a tightly corked vial.

Scrape the skin in three places till the true skin is reached and ready to bleed, but without any *flow* of blood. Moisten the *virus*, and rub it well over the raw surfaces. Or, make several slight horizontal and transverse cuts, crossing each other, and rub the *virus* over these. Let it thoroughly dry, or put a piece of plaster over. If the vaccination "takes" —

3rd day.—Papule appears.

10th day.—Areola begins to fade.

6th day.—Vesicle, with central depression.

14th day.—A brown, mahogany crust has formed.

8th day.—Vesicle distended with lymph, and has wide, red areola.

23rd day.—Crust becomes detached.

The fever which sometimes accompanies may be met by *Bell*.

Vaccination should be performed at least twice—in infancy and at the age of puberty. Also, whenever exposure is liable to occur.

DENGUE.

SYNONYM: *Breakbone Fever*.

PROGNOSIS.—*Favorable*, except in the aged, and in feeble infants.

LEADING REMEDIES.

Gelsemium, Bryonia, Eupatorium, Rhus, Actæa, Arsenicum.

PERIODICAL FEVERS.

Periodical Fevers are marked by intervals in the course of the disease, during which the patient is almost or quite free from fever.

INTERMITTENT FEVER.

SYNONYMS: *Ague; Chills and Fever.*

LEADING REMEDIES.

Cinchona.—Recent cases. Paroxysm preceded by headache, hunger, palpitation. Each stage well marked—first the *chill*, which is *severe*, and the principal feature of the

attack, with violent shivering, and aching pains; then the fever, followed by violent thirst, and sweat, which is sometimes profuse and exhausting. *Apyrexia*:—Patient suffers but little—feels almost in ordinary health.

DOSE.—First decimal, or centesimal, trituration, two or three grains every three or four hours in *apyrexia*.—*Hughes, Baehr, Panelli, Jousset.*

Undoubtedly the most important remedy.—*Baehr.*

Arsenicum.—Attack preceded by weariness, approaching prostration; *paroxysm imperfectly developed*; before chill, vertigo, headache, yawning, stretching, and general sense of discomfort; *chill and heat intermingled*; oppressed breathing; nausea, sometimes vomiting; small, feeble pulse, even during hot stage. One of the stages often absent—sometimes the sweat, but usually the chill. Tendency to increase in the severity of the paroxysms, and rapid and excessive prostration. *Urgent thirst* throughout. *Apyrexia*:—Prostration; nausea; pains in stomach and bowels; dropsical swellings.

Ipecac.—Backache; short chill, long fever; nausea, vomiting, and other *gastric disturbances*, occurring before and during chill and heat; tongue thickly coated with yellowish, moist fur; great oppression of chest; *nausea and vomiting predominate*. *Apyrexia*:—More or less *gastric disturbance*.

Useful in mild forms of tertian.—*Baehr.*

Nux v.—Chill long-lasting and hard; fever severe; sweat profuse; both chill and fever accompanied by *much gastric and bilious disturbance*; distressing pains in head, back, and legs. During chill, external warmth aggravates, and causes shivering.

Nux, in alternation with *Ipec.*, for impure intermittents in non-ague districts.—*Hughes.*

Natrum mur.³⁰—Chill beginning in feet or small of back; blue nails; thirst; *bursting headache*, relieved by sweating; bilious chill; bilious vomiting before and during chill. For *severe cases*. **DOSE.**—“I am compelled to declare myself for the higher dilutions.”—*Dr. Watzke.*

Eupatorium perf.—Thirst several hours before chill, continuing during chill and heat. Chill *short*, hot stage *protracted*, and sweat *slight*. Vomiting of bile at end of chill. During chill and heat back aches *violently, as if it would break*.

Veratrum alb.—Predominance of external *coldness*; cold, clammy perspiration; *great thirst*, especially during chill and sweating; great exhaustion and sinking of strength; vomiting and diarrhœa, with griping, and pain in back and loins.

Indicated in the most pernicious kinds.—*Raue.*

Phosphoric ac.—*Profuse sweat.*

Gelsemium.—Severe nervous symptoms.

Aconite.—Recent cases in plethoric subjects.

Cedron.—Chills recur with marked regularity.

Ignatia.—Chill relieved by external warmth; thirst only after paroxysm.

Capsicum.—The sweat coincides with the heat, instead of following it.

Pulsatilla.—Gastric symptoms, and resulting chlorosis and hydramia.

Hydrastis.—Cachectic subjects, with hepatic and gastric symptoms.

Arsenicum, Ipecac., Cedron, Sulphur, for dumb ague.

Chinoidine will often cure when *Quin. sulph.* fails.

GENERAL MEASURES.

During the paroxysm give *Acon.* to mitigate its severity. Apply artificial heat during the chill, cooling drinks during the hot stage, and warm, dry clothing after the sweat.

In malarial districts, avoid out-door air after sundown; sleep in an upper room.

REMITTENT FEVER.

SYNONYMS: *Bilious Fever; Typho-malarial Fever.*

PROGNOSIS.—Favorable.

LEADING REMEDIES.

Belladonna.—For initiatory fever. Severe chill, with vomiting and retching; violent fever, which is especially high at night.

Gelsemium.—Congestion of head; flushed face; chilliness; languor; great muscular weakness; pulse full, quick, and soft; dull pain in head, back, and limbs.

China.—Great prostration; fluctuating pulse; humming in the ears; marked remission.

Ipecac.—Gastric disturbance; headache; yellow or white-coated tongue; bitter taste, vomiting, and continued nausea.

Mercurius.—Thick, yellow, pasty coating on tongue; earthy color of face; bitter taste; soreness in liver.

Applicable during greater part of disease.—*Baehr.*

Bryonia.—Pressive or tearing pains in chest; better when at rest. Thin coating on tongue; bitter taste; constipation. Distinctly marked febrile motion.

Pulsatilla.—Whitish coating on tongue; bitter eructations; bitter vomiting; chilliness; thirstlessness.

Rhus.—Fever degenerates into a low, typhoid state, with adynamia, diarrhœa, tongue brown and dry, *sordes* on lips, teeth, and tongue.

Arsenicum.—Great emaciation, prostration, and restlessness, with intense thirst; dark, fetid discharges from the bowels.

GENERAL MEASURES.

Sometimes degenerates into low, typhoid-like condition, when nursing and diet should be similar to that recommended for Enteric Fever.

PERNICIOUS AGUE.

SYNONYM: *Congestive Chill.*

VARIETIES.—Cerebral { Comatose, Delirious; Gastro-enteric { Algid, Icteric.

PROGNOSIS.—Grave. Recovery rare if more than two paroxysms occur.

I have never lost a patient except where there has been an evident *heart affection*—a fatty condition or dilatation—or where an organic brain lesion has occurred during the first chill.—*J. P. Dake.*

TREATMENT.—Must be prompt and vigorous. Bring about reaction as soon as possible. In the *cold stage*, apply heat to the surface, with stimulants. When there is cerebral congestion, cold affusions to the head.

LEADING REMEDIES.

Arsenicum.—Cold, clammy sweat; breath cold; eyes sunk in sockets; Hippocratic countenance; great prostration, with great anguish, thirst, and restlessness.

Veratrum vir.—Intense cerebral congestion; delirium; face purple; violent throbbing of carotids; pulse full, hard, and bounding.

Especially when the congestion involves the brain, and the chill has been severe and profound.—*J. P. Dake.*

Gelsemium.—Burning heat of the surface; great sensitiveness to light and sound; delirium; predominance of nervous symptoms, with great muscular weakness.

When brain and spinal cord are both pressed, and heart's action irregular.—*J. P. Dake.*

Quinia sulph.—Must be freely given to bring about reaction. Give five grains every two hours, or three grains every hour, till signs of reaction appear; then two grains every three hours till the time for another paroxysm is past. *Caps. an.*, one-fourth part, may be advantageously combined with the *Quin.*

If the dose cannot be given by the stomach, administer subcutaneously

LENTE'S SOLUTION.

- ℞. Bi-sulphate of quinine.....50 grains,
 Dilute sulphuric acid..... 1 drachm,
 Carbolic acid, liq..... 5 minims,
 Water, to make 1 ounce.

Dissolve the bi-sulphate in the sulphuric acid and water, by the aid of heat; filter, and add the carbolic acid. Ten drops contain one grain of the bi-sulphate.

Subcutaneous injection is the quickest and most powerful means of bringing the patient under the influence of *Quinine*.—*Bartholow*.

SOLUTION OF SULPHATE OF QUININE.

- ℞. Sulphate of quinine.....30 grains,
 Sulphuric acid, dilute..... sufficient,
 Water 2 ounces. Mix.
 Give in syrup of licorice.

Quinine is called for in some cases—perhaps at some stage in *all* cases—and no other remedy can take its place.—*J. P. Dake*.

The prompt and energetic administration of *Quinine* is imperatively demanded.—*L. A. Falligant*.

My treatment is *Quinine, Quinine, Quinine*.—*W. H. Holcombe*.

Quinine is the remedy *par excellence*.—*A. Chargé*.

GENERAL MEASURES.

During the congestive chill use free, hot foot baths and mustard draughts to the extremities, to divert the circulation. If intense congestion of the head, use cold affusions; but do not use them *if the face be pale*. If there be *great prostration*, profuse, cold perspiration, cold breath, *give stimulants*—feed the patient with brandy or whiskey; put in some finely pounded ice if there be great thirst.

Remissions greatly promoted by free and frequent use of hot mustard foot bath. Prostration and exhausting sweat demand stimulants.—*Falligant*.

YELLOW FEVER.

SYNONYM: *Febris Icterodes*.

PROGNOSIS.—*Favorable*: Free, copious urine, however dark or bilious it may be, most favorable of any single sign. *Unfavorable*: Blood in the early vomit; black vomit; faltering articulation; *suppression of urine*.

LEADING REMEDIES.

FIRST STAGE.

Camphor.—Initiatory chill, severe and long-lasting, with great coldness of skin, and prostration. **DOSE.**—Drop doses of tincture every ten minutes.

Aconite.—First stage, after reaction from chill; fever; burning heat; dry skin; full, hard, and rapid pulse; violent thirst; red face; headache; restlessness; prostration and vomiting.

Belladonna.—Cerebral congestion; headache; throbbing of carotids; face scarlet-red, shining, and swollen; eyes red and sparkling; active delirium; pain in stomach, with nausea and vomiting.

Acon. and *Bell.* are complements of each other in the stage of fever and cerebro-spinal irritation, and I therefore use them in alternation, every half hour at first.—*Holcombe.*

SECOND STAGE.

Bryonia.—After cerebro-spinal symptoms have subsided, and the gastric symptoms are prominent. Splitting headache; eyes red and sparkling; tongue yellow-coated; lips parched, dry, and cracked; great irritability, and vomiting.

Argentum nit.—Vomiting of brownish mass, mixed with coffee-ground-like flakes.

If the patient sinks, if the vomiting becomes worse, or with any of those various signs which indicate hæmorrhage from the gastric mucous membrane, *Arg. nit.* is the remedy.—*Holcombe.*

THIRD STAGE.

Arsenicum.—Face yellowish and livid; eyes dull and sunken; nose pointed; lips and tongue brown or black; burning or stitching pain in epigastrium and region of liver; suppression of urine; oppression of chest; short, anxious breathing; pulse small and tremulous; skin cold; cold, clammy perspiration; rapid prostration, and vomiting of a brown, turbid matter, mixed with mucus, and sometimes stained with blood.

Lachesis.—Delirium; slow, difficult speech; red face; tongue heavy, trembling, dry, and brown, nausea; vomiting; irregular, weak pulse; urine almost black.

When *Bell.* and *Acon.* produce no further amelioration, a change to *Arsen.* and *Lach.* brings about the desired amendment.—*Holcombe.*

Crotalus.—Hæmorrhage from eyes, nose, mouth, stomach, and intestines—from all the orifices of the body, even to bloody sweat.

Has proved of excellent service.—*Neidhard.*

SPECIAL REMEDIES.

Sabina, Secale.—Threatened abortion.

Hyoscyamus, Coffea.—Nervous sleeplessness at night.

Antimonium tart.—Prolonged and incessant nausea.

Veratrum alb.—Vomiting and abdominal pains.

Phosphorus, Mercurius.—Resulting diarrhœa or dysentery.

Ipecac.—Continued nausea; vomiting of glairy mucus.

Cantharis.—Cramps in abdominal muscles and legs, with frequent urging to urinate, or suppression of urine.

Scarcely ever fails to remove strangury, and restore the renal secretion.—*Holcombe.*

GENERAL MEASURES.

Quarantine the patient; use disinfectants; keep the patient quiet, in horizontal posture; keep the air fresh and pure; cool sponging of the body when the fever is high.

Diet.—Requires strict attention. *First stage*, milk and water, with lime-water added; black tea, with cream; ice cream; bits of ice, to slake the thirst, and allay vomiting. Later, give rice, milk, and arrowroot. During the stage of prostration, beef tea, wine whey, *café au lait*. *Great caution* is necessary, lest an error in diet excite a relapse.

DISEASES OF RESPIRATORY ORGANS.

CORYZA.

SYNONYM: *Nasal Catarrh.*

LEADING REMEDIES.

Camphor.—Incipient stage, *chill*. Drop doses, frequently repeated, often cut it short.

Aconite.—Chilliness, followed by *feverishness*, as precursor of catarrhal fever.

Euphrasia.—Aerid, fluent coryza, with scalding tears and aversion to light.

Arsenicum iod.—Abundant discharge of *thin, hot, ex-coriating* mucus from nose, with *burning* sensation; lassitude and prostration.

Mercurius iod.—Frequent *sneezing*; *soreness* of nose; discharge of *thick mucus*; great accumulation in posterior nares; salivation; sore throat; profuse perspiration.

Hydrastis.—Thick, *tenacious* secretion from posterior nares, constantly dropping into the throat. Also, a spray, locally, of *Muriale of Hydrastis*.

Kali bi.—Chronic coryza, with tough, stringy mucus; hoarseness; cough; yellow-coated tongue, and gastric disturbance.

OZÆNA.

LEADING REMEDIES.

Aurum.—Discharge offensive; bones of nose sore; melancholia; mercurialization; syphilitic subjects.

Nitric ac.—Syphilitic ozæna; also after drugging with large doses of *Mercury*.

Kali bi.—Thick, tenacious, sometimes *bloody* discharge, and “plugs” of thick mucus.

Pulsatilla.—Soreness of nostrils, with greenish discharge.

GENERAL MEASURES.

Local applications, administered by means of atomizer, should be made to affected part. If discharge is very offensive, use solution *Kali perman.*, five grains to one ounce warm water; or *Carbol. ac.* five drops, *Iod.* six drops, to one ounce water. In severe cases* of ozæna, ointment of red precipitate (*Hydr. precip. rub.*) may be applied directly to the sores, whenever they can be reached, in the nasal cavity.

ŒDEMA GLOTTIDIS.

Apis mel.—Sudden œdema of glottis.

Trust to *Apis*—it has cured it in its most fatal form.—*Hughes.*

CONSULT—*Ars.*, *Sang.*, *Stram.*

GENERAL MEASURES.

Scarify the glottis with the point of a guarded bistoury; or, with finger nail sharpened to a point. Inhalations of steam. *Tracheotomy*, if suffocation is imminent.

EPISTAXIS.

LEADING REMEDIES.

Aconite.—Prolonged or violent bleeding in plethoric subjects, with fullness of cerebral vessels.

Belladonna—Congestion of head, blood bright and flowing freely. From being over-heated.

Arnica.—From injury. Nose feels hot; blood red and liquid; hæmorrhage preceded by itching or tingling of nose.

Nitric ac.—Disposition to nose bleed; severe and frequent attacks. Often succeeds.

China.—Weakly persons who have lost much blood; ringing in ears; pale face.

Bryonia.—Bleeding of nose when menses should appear.

Hamamelis.—Passive flow, blood dark and liquid; hæmophilia.

Ferrum phos.—Epistaxis in old people.

GENERAL MEASURES.

Raise the arms above the head. Apply cold water or ice to the root of the nose, or back of the neck. Insert into the nostril a plug of lint saturated with *Hamam.* Inject into the nostril a solution of *Alum.* (See Part III.)

HAY FEVER.

SYNONYMS: *Hay Asthma; Rose Cold.*

LEADING REMEDIES.

Arsenicum.—The leading remedy. Its persistent use has cured some cases.

Sticta pulm.—I have used it considerably, and with the very best results.—*Dr. B. F. Bailey.*

Ipecac.—In conjunction with *Ars.*, especially when asthmatic symptoms prevail.

Sabadilla.—Hay fever, with violent sneezing and running of eyes and nose.

I have cured a number of severe cases.—*Bayes.*

Quinine.—Use solution locally.

With Binz's solution of *Quinine* as a local application I have had very good results.—*Hughes.*

GENERAL MEASURES.

Change of climate assures immunity. Mackinac and the shores of Lake Superior, the White Mountains, favorite resorts. Sea voyage also effectual. To stop violent paroxysms of sneezing, plug the nostrils with cotton—not tight, but so that the air, in breathing, will filter through.

INFLUENZA.

LEADING REMEDIES.

Arsenicum iod.—Chills, with flushes of heat; severe, fluent coryza, discharge irritating and corrosive; sneezing; puffiness of face; prostration.

The specific remedy.—*Hughes.*

Aconite.—High fever; hot, dry skin; restlessness; dry, violent, racking cough, with stitches in chest.

Mercurius.—Rheumatic pains in head, face, ears, teeth, and extremities; fluent coryza, with catarrh of throat and lungs, with violent, racking, unceasing cough; chill and heat, with profuse, non-alleviating sweat.

Eupatorium perf.—Distressing backache and “bone pains.”

Kali bi.—Troublesome cough, with coated tongue and loss of appetite.

GENERAL MEASURES.

In severe cases confinement to bed with warm drinks and a hot-bottle sweat will greatly aid. If the cough is severe keep the atmosphere of the room moist.

CROUP—CATARRHAL.

SYNONYM: *Acute Laryngitis.*

LEADING REMEDIES.

Aconite.—Early in attack, short, dry, hard, metallic cough; hurried, labored breathing; hot, dry skin; thirst; restlessness.

This is the principal remedy for catarrhal croup.

Spongia.—Rough, crowing, barking cough; loud, wheezing, *sawing* respiration; suffocative fits; inability to breathe except with head thrown back.

With *Acon.*, sufficient in most cases.

Hepar sulph.—Loose, *rattling*, choking cough; air passages seem to be clogged with mucus. After resolution has been initiated by *Acon.* and *Spong.*, so that the breathing has a *rattling* rather than a *sawing* sound.

Kali bi.—The throat becomes filled with tough, tenacious mucus.

Phosphorus.—Hoarseness after croup, with tendency to relapses.

Antimonium tart.—Loose cough, much mucus on the lungs, with difficult expectoration.

GENERAL MEASURES.

Hot fomentations to the throat, and hot foot bath, up to the knees, often benefit. Give the patient plenty of fresh air. Give *frequent* doses of the indicated remedy.

CROUP—PSEUDO-MEMBRANOUS.

PROGNOSIS.—Grave. *Unfavorable:* Signs of carbonization of the blood; face becomes blue, hands cold, and fingers blue under the nails, with drowsiness and stupor; pulse weak, small, irregular, and frequent; cold extremities.

LEADING REMEDIES.

Iodine.—Dry, short, barking cough, with wheezing, *sawing* respiration, imminent suffocation, and extreme dyspnoea. **DOSE.**—Taste uses a one-per-cent solution, three drops every fifteen minutes.

As soon as I am satisfied of the existence of true croup, I give Iod., second dilution.—Dr. Elb.

Bromine.—Child gasping for air; rattling of mucus in the windpipe when coughing; false membrane *extending to the lungs*; great prostration.

Constitutional prostration is the characteristic indication for the preference of *Brom.* *Iod.* suits the more *sthenic* form.—*Hughes.*

Kali bi.—Gradual onset; hoarse, dry, barking cough; tonsils and larynx red and swollen, with patches of pseudo-

membrane; violent wheezing and rattling in trachea; membrane *thick and tenacious*.

Has frequently cured membranous croup.—*Hughes*.

SPECIAL REMEDIES.

Belladonna.—*Early*, as anti-pyretic, and to reduce the local capillary congestion.

Arsenicum.—Great puffy swelling of throat and neck; putrid breath; rapid and extreme prostration.

Phosphorus.—Increased dyspnoea, agony, and restlessness; hollow cough; the erupous process extended to bronchi; the lungs hyperæmic.

Antimonium tart.—Danger of asphyxia occasioned by movable patches of membrane; cough feeble and without resonance; mucous *râle* in trachea.

Hepar sulph.—After the attack, a *rattling cough* remains.

Phosphorus.—*Dry* cough remaining after recovery.

GENERAL MEASURES.

Give the patient an *abundance* of pure air. Keep the temperature of the room at 75° F., and the atmosphere moist. Early in the attack bits of ice are grateful to the patient. Give inhalations of the indicated remedy, *Iod.*, *Brom.*, *Kali bi.*, by means of the steam atomizer, in addition to its internal administration. The fumes of slacking lime inhaled by the patient, has proved useful in many cases.

Tracheotomy.—The percentage of recoveries following tracheotomy is such as to demand its trial in every critical case. The operation is called for *when there is considerable false membrane in the larynx, when respiration is so difficult that you see falling in of the sternum each time the patient breathes, and each supra-clavicular space deepens with every inspiration.* (For method of operating see Part III.)

Diet.—Give nourishing food, liquid in form—broths, beef tea, milk, eggs stirred in milk, wine whey, egg coffee; or, nutrient enemata.

COUGH.

LEADING REMEDIES.

Nitric ac.—Chronic, laryngeal cough, without expectoration, with stinging and smarting as of small ulcer in larynx—generally on left side.

I have long used it with benefit in dry and violent laryngeal coughs.—*Hughes*.

Hepar sulph.—Irritating cough, with hoarseness, excited by exposure to cold; rattling of mucus in throat; sensation as of a clot of mucus, or internal swelling, when swallowing.

Phosphorus.—Dry cough, excited by tickling in the throat, with *hoarseness*; phthisical cough, in those with weak lungs.

Spongia.—Dry, hoarse cough, with pain in larynx; worse at night.

Sulphur.—Dry cough, with hoarseness and dryness in throat, and tightness of chest. Or, loose cough, with expectoration of whitish or yellowish mucus.

Kali bi.—Cough with tough, stringy expectoration, preceded by much wheezing, accompanied by difficult breathing, and followed by dizziness.

Mercurius.—Chronic, moist cough, worse at night.

Hyoscyamus.—Nervous, *dry*, spasmodic cough, worse at night, especially on lying down.

Belladonna.—Short, dry, hollow, convulsive cough, worse at night, with tickling in throat, flushed face, headache, and cerebral congestion.

Bryonia.—*Hard, dry*, shaking cough, with pain in side, chest, and head.

GENERAL MEASURES.

Cough is a *symptom*, and the *cause* must be ascertained and removed. In simple cough, a cold compress about the throat at night often relieves. Drink small quantities of cold water at frequent intervals. Give gum water, and demulcent drinks, when from simple irritation.

WHOOPIING COUGH.

SYNONYM: *Pertussis.*

LEADING REMEDIES.

Aconite.—Initiatory fever, with dry, hard, wheezing cough, burning pains, or dry itching in the larynx.

Indispensable for the fever.—*Bœnninghausen.*

Ipecac.—Violent, suffocative cough, the child becoming stiff and *blue* in the face; *gagging* and *vomiting* of mucus.

One of our best remedies.—*Baehr.*

Drosera.—Spasmodic stage, with frequent and excessively severe paroxysms of hoarse, loud cough, sometimes with bleeding from nose and mouth. Fever may be absent, or, fever intermixed with chills, accompanied by perspiration, and after the cough, vomiting of food or mucus.

DOSE.—1x or tincture.—*Bayes.*

Holds a prominent place among whooping-cough remedies.—*Bœnninghausen.*

Hydrocyanic ac.—Spasmodic stage, *convulsions* and *suffocative* attacks.

Exerts almost magical influence.—*West.*

Belladonna.—Sudden, violent paroxysms of cough, without expectoration, *worse at night*, with sore throat, cerebral congestion, redness of eyes, epistaxis.

Very useful remedy. Suitable only at the beginning, or, later, when there is cerebral congestion or fever.—*Bönnighausen*.

Carbolic ac.—Second stage. Cough dry, hard, spasmodic.

I have used the 2x with excellent effect.

Corallium rub.—“A remedy of exceeding value in violent cases.”—*Carroll Dunham*.

Cuprum.—Convulsions. “Has always succeeded with me.”—*Joussel*.

Phosphorus.—Supervening broncho-pneumonia.

Hepar sulph.—Croup prevailing at time of epidemic of whooping cough.

GENERAL MEASURES.

In the case of infants watch them closely and take them up if a paroxysm of cough sets in. Wear warm clothing, and guard against chill. If the attack be severe give plenty of nourishing food to keep up the strength.

BRONCHITIS.

PROGNOSIS.—Generally favorable. It is grave in the *capillary bronchitis* of young children, and the *suffocative catarrh* of the aged. *Unfavorable*: Breathing oppressed and very rapid—60 and over per minute; pulse 150 or over, small, thread-like, and irregular; bluish countenance and other signs of carbonization of the blood. *Favorable*: Respirations become easier and less frequent; subsidence of sub-crepitant *râles*, and return of respiratory murmur, and diminished frequency of pulse-beats.

LEADING REMEDIES.

Aconite.—*Early in attack*; chill and fever; dry, hot skin; restlessness and thirst; short, hard, tickling cough, with constant laryngeal irritation. To be of service *Acon.* must be given early; later it is of no use except as intercurrent if there be *continuous* fever.

Should the inflammation have thoroughly established itself, we cannot expect *Acon.* alone to cure it.—*Hughes*.

Antimonium tart.—Great oppression and suffocative breathing; extensive mucous *râles*; great rattling of mucus with the cough, but nothing is raised; also, symptoms of incipient carbonic-acid poisoning—sopor, delirium, pallor, bloated countenance; also, profuse sweat without relief; disposition to vomiting and diarrhœa; paroxysms of rattling cough, ending in vomiting. For *capillary bronchitis* of children, and *pneumonia nolla* of the aged.

Enjoys the largest sphere of action, and is preëminently character-

ized by a *profuse excretion of mucus which it is difficult to raise*, with or without fever.—*Baehr*.

The grand remedy for this dangerous disorder (suffocative catarrh of the aged). I have almost invariably relied upon it alone, and have seen desperate cases recover under its use.—*Hughes*.

Belladonna.—Dry, distressing, spasmodic cough, in short paroxysms, but very violent, especially toward evening; no expectoration, or yellowish, tenacious, scanty, blood-streaked; respiration oppressed, irregular, and hurried; sensation of fullness in chest, with determination of blood to lungs. Useful only in first three or four days.

Bronchitis setting in with violent fever; moderates the latter much more certainly than *Acon.*—*Baehr*.

Mercurius.—Violent fever, temperature high; great perspiration, without relief; alternation of chills and heat, with great sensitiveness to changes of temperature; tongue with thick, yellowish coating; diarrhoea; feeling of dryness, roughness, and soreness down middle of chest; violent, wearing cough, especially in evening and until midnight, with tenacious, yellowish, sometimes blood-tinged expectoration, every paroxysm of cough preceded by anxious oppression and dyspnoea; unquenchable longing for ice-cold drinks. Particularly adapted to children and robust adults—not so much for old people. Mucous membranes extensively involved—lungs, stomach, bowels.

Bryonia.—Trachea and large bronchi affected; dry cough, with stitches in the chest, short, labored respiration; with cough, determination of blood to head, turgescence of face. Ordinary “cold on the lungs.”

Too extensive claims are made for *Bry.* Good where the catarrh invades the trachea and large bronchi—it is of little use beyond.—*Hughes*.

Kali bi.—Burning pain in trachea, cough with expectoration of *tough mucus*, which can be drawn out in strings; tongue thickly coated, with loathing of food.

Bronchorrhœa, with copious, purulent expectoration, give *Kali bi.*, by inhalation, two grains to four ounces of water.—*Meyhöffer*.

Ipecac.—Asthmatic breathing; much nausea and vomiting of mucus, rattling of mucus in bronchial tubes, face livid during cough; loud, mucous *râles*, with wheezing respiration; severe gastric ailments and intestinal catarrh, pallid or bluish or bloated countenance. Principally adapted to bronchial catarrh of children.

Hepar sulph.—Cough, with wheezing over whole chest, in severe paroxysms, with danger of suffocation; expectoration of a yellowish, tenacious mucus. Croupous bronchitis.

SPECIAL REMEDIES.

Veratrum alb.—Failing strength; increased frequency and irregularity of pulse; coarse *râles*; secretion of copious quantities of mucus, which cannot be coughed up; skin cold, with cold sweat.

Arsenicum.—For aged people, with great debility; œdema of lungs.

Phosphorus.—Complications — œdema of lungs, or pneumonia.

Rhus.—Typhoid symptoms and violent fever.

CAPILLARY BRONCHITIS.

REMEDIES.

Antimonium tart., *Calcarea carb.*, *Phosphorus*, *Ipecac.*, *Arsenicum*.

CHRONIC BRONCHITIS.

With mucus expectoration.—*Ant. tart.*, *Kali bi.*

With purulent expectoration.—*Merc.*, *Sil.*, *Lyc.*, *Calc.*, *Sulph.*, *Iod.*

No bronchial disease of long standing can be successfully treated without *Sulph.* or *Lyc.*—*Meyhofer*.

Sulphur.—Rheumatic or gouty subjects, or those of serofulous diathesis. Bronchorrhœa, with putrid expectoration.

Curative in the most inveterate forms.—*Meyhofer*.

GENERAL MEASURES.

If the patient is suffering from extreme dyspnoea, hot fomentations to the chest afford prompt relief. Do not leave fomentations on to become cold — renew at frequent intervals. In capillary bronchitis, keep the patient in a well ventilated room, but with an equable temperature, and a *warm, moist* atmosphere.

Diet.—In acute, with fever, diet as in other fevers. When profuse expectoration, nourishing, albuminous food. Demulcent drinks good — milk, gruel, barley water.

ASTHMA.

LEADING REMEDIES.

Arsenicum.—Asthma, with burning heat in chest, cold sweats, complicating heart disease, or following bronchitis. *The more the patient seems on the point of suffocating, the more painful and distressing his restlessness, the more wheezing and louder the respiration, the more Ars. will be found appropriate.* This is accompanied by livid countenance; cold sweat; frequent, small pulse; palpitation; distended abdomen.

Ars. sometimes exerts a magical effect.—*Baehr*.

Nux vom.—Tongue coated with thick, yellow fur; slight nausea; flatulence; constipation; disorders of digestion.

The best curative medicine we have for simple spasmodic asthma, where there is no bronchial lesion.—*Hughes*.

Ipecac.—Attacks of suffocation; feeling of constriction in throat and chest; coldness; paleness; anxiety and sickness; rattling of mucus in bronchial tubes. Bronchitic asthma. Give frequent doses during paroxysm.

Lobelia.—Purely nervous asthma; constrictive, suffocative sensation; vertigo; nausea; vomiting; sense of great emptiness in stomach.

Aconite.—Dyspnœa; labored breathing; great fear and anxiety of mind; suffocative cough at night. Often relieves during paroxysm of spasmodic asthma, and bronchitic asthma from cold.

Sambucus.—Violent dyspnœa; nightly suffocative attacks, with profuse perspiration. Especially useful in asthma of children.

Grindelia.—Mucous asthma; tenacious sputa; nervous and cardiac asthma.

Sulphur.—Gouty subjects, or those subject to skin diseases.

GENERAL MEASURES.

Let the patient seek the most comfortable position for himself, to favor respiratory effort. Keep the atmosphere of the room *moist*. To relieve paroxysm: A cup of very strong *coffee*; drop doses tincture *Ipec.*; inhalation of *Nitrite of Amyl*, of *Chloroform*, or *Ether*; inhalations of the smoke of burning *Stram.* leaves, made up into a cigarette, or in a pipe—twenty grains of the leaves, or ten grains of the dried root. Soak blotting paper in a *strong* solution of *Potassic Nitrate* (saltpeter), and dry it thoroughly. Burn this, and let the patient inhale the fumes.

Diet.—Important. Asthmatics are generally dyspeptic, and much can be accomplished by attention to the stomach. Never overload the stomach. Do not eat a hearty meal late in the day. Let the diet be nourishing, but plain, wholesome, and easy of digestion. Use no coffee.

PNEUMONITIS.

SYNONYM: *Lung Fever*.

PROGNOSIS.—*Favorable:* Acute; uncomplicated; previously healthy subjects; one lung. *Unfavorable:* Extremes of life; complication with Bright's, heart, pregnancy, etc; pulse over 150; delirium after first week; collateral œdema; gangrene; both lungs.

CAUSES OF DEATH.—Collateral œdema; heart failure and heart clot; asphyxia; asthenia.

LEADING REMEDIES.

Veratrum vir.—Stage of congestion; *full, hard, bounding* pulse; rusty expectoration; great oppression of chest; delirium. DOSE.—Several drops of tincture.

I have seen the happiest effects when the attack came with a *severe, long-lasting* chill—*J. P. Dake*.

I have aborted threatened attacks with this remedy.

Aconite.—Initiatory chill and fever; stage of congestion; of no use after hepatization has occurred, and *Verat. vir.* is often superior to it in the first stage.

Bryonia.—Moderate fever; severe, shooting, cutting pains in chest; painful cough, with scanty expectoration of tough, rust-colored mucus; stage of restlessness has passed; patient quiet and exhausted; tongue covered with thick, white fur; stomach inactive; liver engorged; rheumatic pains in chest muscles.

The most essential remedy in second stage.—*Baehr*.

Phosphorus.—Stage of hepatization; pain not very severe—vaguely localized stitches; great weight and oppression of chest; marked embarrassment of respiration; cough, with bloody, muco-sanguinolent, or sanguineo-purulent, difficult expectoration. Very useful in *severe* cases, asthenic pneumonia, and “typhoid pneumonia.” *Collateral œdema.*

Our sheet anchor in pneumonia.—*Hirschel*.

Antimonium tart.—Commencing resolution; increased frequency of pulse; great anxiety and restlessness; copious, cool perspiration; pallid countenance; suffocative spells; *great dyspnœa*; loose, rattling cough, as if much would be expectorated, but nothing comes; impending paralysis of lungs; collateral œdema.

One of the most important remedies when pneumonia deviates from its normal course.—*Baehr*.

Sulphur.—After defervescence, to promote resolution.

A deficiency of reaction, and a simultaneous absence of such symptoms as point to a destruction of the organic powers, constitute the best indications for this remedy.—*Baehr*.

SPECIAL REMEDIES.

Chelidonium.—Liver complication.

Sanguinaria.—Suppuration; hectic fever.

Lycopodium.—Chronic pneumonia, with hectic.

Nitric ac.—In aged, or of feeble constitution.

Mercurius.—Broncho-pneumonia; profuse sweats.

Rhus.—Typhoid character; “prune-juice” sputum.

Hepar sulph., Silica.—Purulent infiltration; abscess.

Belladonna.—Cerebral congestion; delirium; convulsions.

GENERAL MEASURES.

Keep the patient in a large, *well ventilated* room. *Abundance of pure air important.* Patient should be propped

up in bed, in a *raised posture*. Large, thin poultice to the chest. Give mucilaginous drinks and nonrishing food.

CONGESTION OF THE LUNGS.

LEADING REMEDIES.

Aconite.—In plethoric subjects, with short, anxious breathing; pulse quick and hard; burning, pressing pains in chest.

The main remedy.—*Baehr*.

All-sufficient when case taken early.—*Hughes*.

Veratrum vir.—Great arterial excitement; faint feeling in stomach; nausea; heart's beat loud and strong; pulse full and hard.

Has often cured.—*Hempel*.

Cactus.—Congestion of lungs dependent on cardiac affection, with oppression of respiration; acnte pains; feeble voice; feeling of constriction.

I have used this remedy with excellent effect.

Phosphorus.—Feeling of great weight on chest.

When turgescence so great as to allow œdema to occur.—*Hughes*.

ŒDEMA OF THE LUNGS.

LEADING REMEDIES.

Phosphorus.—Acnte pulmonary œdema in connection with pneumonia, or other diseases of the respiratory organs.

This remedy sometimes has a brilliant effect.—*Kafka*.

It is possessed of extraordinary powers against œdema.—*Baehr*.

Antimonium tart.—Cyanosis; audible rattling; great dyspnœa; coarse *râles*; the bronchial tubes containing a great quantity of mucus; the patient in constant danger of suffocation. Œdema of lungs occurring in course of general dropsy.

I have more than once seen the œdema subside entirely under the use of this medicine.—*Hughes*.

Arsenicum.—Supervening on anasarca; great debility and prostration.

Ammonium carb.—Give on first signs of drowsiness, and carbonic-acid poisoning.

HÆMOPTYSIS.

DIFFERENTIAL DIAGNOSIS.

	HÆMOPTYSIS.	HÆMATEMESIS.
Blood - - - -	Bright-red - - -	Dark.
Blood - - - -	Coughed up - - -	Vomited.
Blood - - - -	Frothy - - - -	Fluid.
Mixed with - -	Sputum - - - -	Food.
Preceded by - -	Dyspnœa - - - -	Stomach distress.
Stools contain - -	No blood - - - -	Blood.
Respiration - -	<i>Râles</i> in lungs -	Lungs clear.

LEADING REMEDIES.

Aconite.—Blood red, frothy; incessant cough; hot chest; anguish; red face. DOSE.—“Low dilutions, repeated very often.”—*Joussel*.

Indispensable in sthenic cases.—*Hughes*.

Hamamelis.—*Profuse* hæmorrhage of venous blood, coming into mouth without effort, like a warm current.

When blood is black, a precious remedy.—*Joussel*.

When flow is passive, from venous hæmorrhage, a reliable remedy.—*Hughes*.

Arnica.—Abundant, blackish blood, with clots, after injury or bodily exertion.

Especially useful when with heart disease or traumatism.—*Joussel*.

Ipecac.—Copious bleeding, preceded by sensation of bubbling in chest; cough, with spitting of blood occasioned by least effort; with cough, tickling behind sternum.

Holds high rank.—*Hughes*.

Millefolium.—Blood red, *frothy*; ejected without much coughing.

Almost always justifies the indications.—*Hughes*.

Veratrum vir.—From congestion of lungs, with *full, hard, bounding pulse*.

Cactus.—Marked arterial excitement; hæmorrhages from *over action* of the heart.

Hæmoptysis with heart disease.—*Raue*.

Digitalis.—From *obstruction* of pulmonary circulation in consequence of heart disease and tuberculosis.

Phosphorus.—*Tight feeling in chest, with dry, tight cough*, followed by hæmorrhage.

Inflammatory symptoms supervening on an attack of hæmoptysis.—*Hughes*.

The principal remedy when there is hæmoptysis in dangerous cases of fever.—*Joussel*.

GENERAL MEASURES.

Recumbent posture; head and shoulders elevated — airy room. Bits of ice in the mouth; a little salt on the tongue.

PLEURITIS.

PROGNOSIS.—*Favorable*: In the young, and healthy subjects; effusion scanty; early absorption. *Unfavorable*: In cachectic, double-sided, persistent high fever; rapid increase of effusion, or return after having once subsided; complication with phthisis.

CAUSES OF DEATH.—Collateral œdema of the lungs; perforation of the diaphragm, and peritonitis; perforation of the lung, with pneumo-thorax; hectic; pneumonia; syncope from dislocation of the heart.

LEADING REMEDIES.

Aconite.—Chill and initiatory fever. Great thirst; quick and rapid pulse; hot, dry skin; red face; shortness of breath; great nervous excitability; piercing, stitching pains in chest, with dry cough.

In simple, acute pleurisy, the sufficient medicine.—*Hughes*.

Bryonia.—Acute, stitching pains in side, greatly aggravated by breathing or movement; labored, short, anxious, and rapid breathing, performed almost altogether by abdominal muscles.

The sovereign remedy when the inflammation has advanced to the stage of serous effusion.—*Trinks*.

Arsenicum.—Great dyspnoea, with but little pain. Second stage, patient much prostrated, weak, and cachectic.

It will accomplish more than any other remedy in the stage of effusion.—*Mitchell*.

SPECIAL REMEDIES.

Apis.—Resorption of effusion.

Arnica.—From over-exertion or a blow.

Iodium.—In scrofulous subjects, replaces *Bry*.

Sulphur.—Plastic exudation, slow to disappear.

Mercurius.—Exudation inclines to become purulent.

Antimonium tart., Phosphorus.—Pleuro-pneumonia.

GENERAL MEASURES.

Absolute rest important. Poultices, large, hot, and frequently renewed. *Thoracentesis* is called for if the amount of effusion is great, with great dyspnoea, and imminent danger from suffocation; effusion liable to return if done before fever subsides. Use aspirator, needle anointed with oil—no preliminary incision; introduce near the axillary line, *fifth* intercostal space on the *left* side, *fourth* on the *right*, near the upper edge of the rib; patient recumbent; evacuate slowly; admit no air.

Diet.—As in fevers generally. Give a sustaining diet if there is much suppuration.

EFFUSION IN PLEURAL CAVITY.

LEADING REMEDIES.

Apis.—Oppression very great; inability to lie down; absence of thirst; dark and scanty urine. From recent inflammation, and after scarlet fever.

Absence of thirst and suddenness of œdema reliable indications.—*Hempel*.

Sulphur.—“Unabsorbed pleuritic effusion, and that which comes on insidiously, I have frequently cured with the continued use of the tincture of *Sulph.*, three or four

doses a day at first, but, as improvement continues, one or two doses a day.”—*Dr. Cate.*

HYDROTHORAX.

LEADING REMEDIES.

Arsenicum.—Severe dyspnoea; suffocative attacks, especially at night; patient cachectic; face bloated; small pulse; idiopathic cases.

Digitalis.—Secondary to cardiac affection; face pale or bluish; pulse slow and intermittent; urine scanty.

Digit. the remedy in cardiac dropsy.—*Hale.*

Apocynum.—When amount of effusion very great. Main treatment to be directed to primary disease, on which the dropsy depends.

PLEURODYNIA.

LEADING REMEDIES.

Aconite.—Rheumatic pleurodynia, recent attack, with fever.

Bryonia.—Sharp, stitching pains, with rheumatic tendency.

Arnica.—Myalgic pleurodynia, with stitching pains; “spurious pleurisy.”—*Hughes.*

Actæa rac.—Neuralgic pleurodynia, with deranged uterine function.

Is specific.—*Hughes.*

Ranunculus.—Idiopathic intercostal neuralgia in anæmic or debilitated subjects.

Nux v.—Hæmorrhoidal subjects; patient cannot lie on affected side.—*Jousset.*

PULMONARY PHTHISIS.

SYNONYM: *Consumption.*

VARIETIES:—I. *Catarrhal Phthisis*, or *Lobular Pneumonia*. This disease is a continuation of pneumonia (catarrhal type).

II. *Fibrous Phthisis*, or *Cirrhosis*, or *Induration of the Lung*, or *Interstitial Pneumonia*. In this form the connective tissue growth is a prominent feature.

III. *Chronic Tubercular Phthisis*. *Miliary tubercle* is deposited in the lymphatic structure of the lung.

LEADING REMEDIES.

Iodium.—Emaciation; loss of appetite; night sweats; profuse, yellowish expectoration, sometimes blood-streaked. More particularly indicated if tuberculosis is the result of scrofulosis. Does not act favorably if diarrhœa present.

DOSE.—*Sixth* sometimes has good effect, but *first* often indispensable.

Our best hope of future success in phthisis lies in knowing how to use *Iod.* for it.—*Hughes*.

One of our most important remedies in confirmed phthisis.—*Baehr*.

Phosphorus.—Continued hoarseness, with distressing, dry cough and sore feeling in the larynx and trachea; pain in the stomach after meals; retching and vomiting of mucus; continual diarrhœa, especially after meals. It keeps down the hyperæmia of the lungs, quiets the cough, and often moderates the diarrhœa. DOSE.—Medium dilutions.

It is curative in pneumonic phthisis.—*Hughes*.

In earlier stages it effects absorption and restores the normal respiratory murmur more certainly than any other remedy.—*Mitchell*.

Baptisia.—Disposition to well marked chills, or only chilly feelings, particularly mornings, followed by fever and perspiration; general debility; profuse expectoration; marked anorexia; bowels regular; laryngeal phthisis, with severe, constant cough and great emaciation.

One of our most serviceable remedies in phthisis with profuse expectoration, morning chill and hectic.—*Mitchell*.

Stannum.—Hectic and emaciation; cough loose and rattling, with profuse, greenish, or muco-purulent expectoration of a disagreeable, sweetish taste; much rattling of mucus in the lungs; cough and expectoration worse mornings; soreness in chest after coughing; a sense of great weakness and emptiness in chest, so that slight exertion of the voice causes great fatigue. Useful in bronchial dilatation.

Even when it cannot cure, it will do much to moderate the exhausting sweats and expectoration.—*Hughes*.

Calcarea phos.—Delicate skin; flushed cheeks; congestive headaches; appetite irregular; dyspepsia with acid eructations; at times, diarrhœa; lassitude and weakness except when under excitement. In females, menses early and profuse. *Calc. iod.*, *Calc. carb.*, and *Calc. ars.* also used.

Kali carb.—In pneumonic phthisis, when there is moist cough, with profuse, purulent expectoration, and sharp, stitching pains in the walls of the chest.

It is rarely that ulcerative pulmonary phthisis can be cured without *Kali carb.*—*Hahnemann*.

Bryonia.—Pleuritic complications and bronchial catarrh.

No remedy equals it in allaying the accompanying fever.—*Mitchell*.

Cod-liver oil.—Useful in many cases when there is emaciation. If it *disturb digestion*, or cause *derangement of the stomach*, it will do more harm than good. Do not take it on an empty stomach—a half hour after a meal is the best time. Large doses are not necessary—a teaspoonful after breakfast and dinner is sufficient. The use of the oil must be persisted in for months and years.

Before taking the oil chew a clove or bit of cinnamon; deposit the

oil well back on the tongue and take it down at one swallow, then eat a piece of cracker or drink some sweetened coffee, and it will leave scarcely any taste in the mouth.

Hypophosphites of lime and soda.—This is of benefit in many cases. It will not do as a substitute for the oil, but some patients, after taking the latter for a time, cease to make further improvement; in such cases the hypophosphites may be added to the treatment, and the improvement will continue.

SPECIAL REMEDIES.

Sulphur.—Fetid expectoration.

Hepar sulph.—Laryngeal phthisis.

Hyoscyamus.—Dry, nocturnal cough.

Aconite.—Acts promptly in hæmoptysis.

Kali iod.—Corrects the tubercular diathesis.

Digitalis.—Violent headache, preventing sleep.

Belladonna.—Teasing, dry cough, with dyspnoea.

Arsenic iod.—For the hectic fever, in late stages.

GENERAL MEASURES.

Hygiene.—Live as much as possible in the open air; let sleeping rooms be large and well ventilated; take systematic exercise calculated to develop the chest, particularly by *deep breathing*. Wear flannels, and avoid sudden changes of temperature. Cool sponge-baths, judiciously employed, have a tonic effect. But nothing can take the place of *fresh air and sunshine*.

Diet.—This should be *simple* but *nutritious*. Let it consist in great part of animal food; fresh beef, mutton, chicken, eggs, oysters, and particularly *milk*. Good vegetables, of course, should also be included. Avoid the use of salt meats, fish, pork, rich gravies, pastry, and *everything that will disturb the digestion*. Above all, *avoid anything that will disturb the bowels*. *Use no alcoholic stimulants whatever*.

As to the use of alcohol in incipient cases, I have no hesitation in pronouncing an opinion adverse to it.—*Dr. T. K. Chambers*.

Climate.—Change of climate is imperative in almost all cases. *Altitude* is an important feature: cases do best at an elevation of 2,000 feet or over. There should be a large proportion of clear, *sunshiny* days; a *dry*, well drained soil; a *dry* air, with little rainfall; an *equable* temperature, with no sudden changes. Warmth is not a necessity—a cool air is more stimulating and invigorating.

My best results, when evidences of consolidation were present, have been obtained in mountain regions, 1,500 to 2,000 feet above the sea. My most decidedly beneficial and permanent results have been obtained in Asheville, North Carolina (altitude 2,250 feet), in New Mexico and the Adirondack regions of New York.—*A. L. Loomis, M.D.*

DISEASES OF CIRCULATORY SYSTEM.

HEART.

PERICARDITIS — ENDOCARDITIS — MYOCARDITIS.

DIAGNOSIS.—*Pericarditis.*—Friction sound synchronous with heart beat, until effusion, when there is increased area of cardiac dullness and displacement of the apex beat. Rarely idiopathic; generally occurs as complication of rheumatic fever, pleurisy, pneumonia, albuminuria, or septiciæmia.

Endocarditis.—Systolic, ventricular, valvular murmur, of recent origin, associated with a condition which would be apt to excite this affection. Seldom idiopathic—generally associated with acute rheumatism.

Myocarditis.—No characteristic signs—always accompanied by peri- or endo-carditis.

CAUSE OF DEATH.—Cardiac palsy—the pulse becomes small and irregular, pulmonary veins engorged, and death from asphyxia consequent upon œdema of the lungs.

LEADING REMEDIES.

Aconite.—Acute, stitching pain in præcordium; difficult breathing, with suffocative feeling; feeling of tightness about heart; intermission of beats, or tumultuous palpitation felt over large area, with irregular action and volume of pulse. *Great* anxiety and tossing about.

Aconite finds its true sphere in cardiac inflammation, whether or not there be high fever. Useful not only at beginning, but sometimes throughout entire course of the disease.

Spigelia.—*Severe* shooting or stabbing pains; distressing oppression of chest, the least motion almost producing suffocation; *violent palpitation*, so severe that the walls of the chest are raised.

An important remedy in rheumatic endocarditis. *Pain* and *violent action* of heart highly characteristic.

Digitalis.—Pericarditis coming on insidiously; friction sound of short duration; serous effusion; distressed breathing; syncope; palpitation; intermittent, feeble pulse, not synchronous with heart beats; livid, turgescient face, with blue lips. Hyperæmia of liver; great anxiety, without any continual restlessness.

An excellent remedy in acute affections of the heart, more particularly pericarditis. If more frequently used in acute heart affections, would be less frequently called upon to use it in chronic heart disease.—*Baehr*.

Bryonia.—Pericarditis as complication of rheumatism, pleurisy, or pneumonia. Commencing effusion, sharp, stitching pains in præcordium.

For *idiopathic* pericarditis we have much better remedies.—*Bæhr*.

Arsenicum.—Pericardial effusion; violent palpitation; rapid pulse; intense thirst; burning pain; anxiety; faintness; extreme restlessness; suffocative attacks; coldness of surface; great anguish, and apprehension of death.

Cactus.—Sharp, pricking pain in heart, or sense of *constriction*; oppressed breathing; dry cough; pulse quick, throbbing, tense and hard; great palpitation.

Lachesis.—Cramp-like pain; anxiety about the heart; suffocation on lying down; oppression on lying down; hands and feet cold; pulse intermittent.

A good remedy in endocarditis.—*Bæhr*.

Veratrum vir.—Strong, loud beat of heart, with quick pulse and difficult breathing.

Veratrum alb.—Cold sweat; Hippocratic countenance; signs of collapse.

Naja, Aconite, Iodine.—After an attack of endocarditis, to complete a cure and prevent valvular disease.

VALVULAR DISEASE.—*Ars.*, *Plumb*.

DILATATION.—*Digit.*, *Physos.*, *Tabac*.

CARDIAC DROPSY.—*Digit.*, *Spig.*, *Ars*.

FATTY DEGENERATION.—*Phos.*, *Ars.*, *Arn*. (to relieve dyspnœa in fatty heart).

HYPERTROPHY.—*Acon.*, *Cact.*, *Naja*, *Spig.*, *Arn*. (after training, rowing, and violent muscular exercise).

PALPITATION.

Cactus.—When due to plethora.

Coffea, Nux.—Nervous palpitation.

China.—Due to excessive tea drinking.

Tabacum.—Palpitation, with fainting attacks.

Moschus.—To be given at the time of an acute attack.

GENERAL MEASURES.

In acute inflammatory, *rest*, and hot poultices over the region of the heart. In chronic organic disease, avoid running, climbing, all over exertion and mental excitement, and hearty meals.

ANGINA PECTORIS.

LEADING REMEDIES.

Arsenicum.—Extreme dyspnœa, increased by slightest motion; debility; pale and haggard face; feeble and irregular pulse; fear of immediate death.

This remedy is chiefly useful given in the *intervals* of the

attacks, as a curative, or preventive, if the case is one of *pure neurosis*. Dose.—Higher attenuations recommended.

No remedy can be more certainly relied upon than *Ars.*—*Hartmann*.

Spigelia.—Severe stabbing stitches in heart at every beat; *violent palpitation*; tendency to syncope. Dose.—Begin with third; give higher or lower according to susceptibility of patient.

This is the principal medicine for *angina pectoris*. It corresponds to the anguishing, sub-sternal pain, radiating to the neck and arms; irregularity of pulse; tendency to syncope; palpitation; aggravation by the least movement.—*Joussel*.

Digitalis.—Cases in an advanced stage; recurring frequently and suddenly. Dose.—Baehr recommends *Digitalin*, second and third triturations.

Hydrocyanic ac.—*Violent palpitation*; long fainting spells; feeling of suffocation, with torturing pains in chest; irregular, feeble beating of heart. Recent cases.

SPECIAL REMEDIES.

Glonoine.—Pale face in paroxysm.

Cuprum.—Muscular, of long standing.

Cactus.—Constrictive pain; rheumatism.

Nux v.—Gouty or hæmorrhoidal subjects.

Aconite.—Recent cases; plethoric subjects.

Veratrum alb.—Cold extremities; cramps; cold sweat.

GENERAL MEASURES.

At the time of an attack, place the patient in a comfortable position, with plenty of fresh air; loosen the clothing; apply large, hot fomentations over the region of the heart, and warmth to the extremities. Give inhalations of *Nitrite of Amyl*. Put ten drops on a bit of cotton in a drachm vial—keep corked when not in use. Give frequent teaspoonful doses of brandy.

Those who are subject to attacks of *angina pectoris* should observe a regular, *quiet* mode of life, avoiding all *excitement* or over exertion, errors of *diet*, overloading the stomach, or anything which may *excite the heart's action*. *The use of tobacco must be strictly prohibited.*

DISEASES OF THE DIGESTIVE TRACT.

STOMATITIS.

LEADING REMEDIES.

Mercurius.—Swollen glands and abundant salivation.

Hydrastis.—Yellow-coated tongue; viscid secretions.

Nitric ac.—When accompanied by derangement of liver and portal congestion; also, when of mercurial origin.

Kali chlor.—*Mercurial stomatitis.* Breath fetid, with ulcers on mucous surfaces.

GENERAL MEASURES.

Use gargle of eight grains of *Kali chlor.* to one ounce of water.

PAROTITIS.

SYNONYM: *Mumps.*

LEADING REMEDIES.

Aconite.—Fever; hot, dry skin; furred tongue.

Mercurius iod.—The gland swollen, red, and painful; jaws stiff.

Rhus.—Swelling becomes dark-red and erysipelatous.

Pulsatilla.—Metastasis to breasts, or to testicles.

Belladonna.—Sudden disappearance of swelling, with loss of consciousness or delirium.

GENERAL MEASURES.

Keep the child in a warm room. In metastasis to mammae or testicles, use *Bell. ointment*, one grain to the ounce.

CANCRUM ORIS.

SYNONYM: *Noma.*

Arsenicum.—Extensive disorganization, and great prostration.

Has no rival.—*Hughes.*

CONSULT —*Merc., Lach.*

GENERAL MEASURES.

Apply locally *Sub-nitrate of Bismuth*, sufficient to cover well the diseased parts. This has been used with great success.

TONSILITIS.

SYNONYM: *Quinsy.*

LEADING REMEDIES.

Aconite.—High fever; headache; restlessness; stinging, pricking fullness, or feeling of choking; throat looks as if scorched.

Belladonna.—Bright redness and rawness of throat; flushed face; glistening eyes; headache; pain on swallowing.

Mercurius bin.—Throat swollen; copious secretion of saliva; swelling of gums and tongue; fetid breath; ulcers in mouth; profuse perspiration, and nightly exacerbation.

Will often avert suppuration.

Gelsemium.—Initiatory fever; aching in all the limbs; great muscular weakness.

Kali bi.—Secretion of much viscid mucus.

I have *cured* several cases of recurrent quinsy with *Kali bi.* and *Gels.*

Baryta carb.—Sensation as of a plug in the throat; raw, scraping, or shooting pain on swallowing.

If you begin the treatment early with this remedy, suppuration need hardly ever occur.—*Hughes.*

Hepar sulph.—Tonsils much swollen, with throbbing pain. This remedy should be given as soon as there are signs of commencing suppuration.

Apis.—Dryness of mouth and throat; much œdematous swelling.

Ammonium mur.—Putrid discharge and tendency to gangrenous ulceration.

Silica.—Abscess slow to heal; scrofulous subjects.

Lachesis.—Left side, with hyperæsthesia of throat.

Arsenicum.—Great prostration; throat putrid and gangrenous.

GENERAL MEASURES.

Early, bits of ice in the mouth. Later, inhalations of steam give great relief. Lance with a guarded bistoury as soon as pus has formed.

GASTRIC CATARRH—ACUTE AND SUB-ACUTE.

LEADING REMEDIES.

Arsenicum.—*Burning* distress in stomach; *intense* thirst; *violent* vomiting, with excessive *pain*, anguish, and restlessness; vomiting immediately after drinking; great prostration; quick, small pulse. Also in late stage, extremities cold; pulse small; features sunken; hiccough; extreme debility. **DOSE.**—Do not give too low—6th to 12th.

The principal remedy—hardly any other needed.—*Hughes.*

Cantharis.—Violent pains in stomach, the patient tossing about in agony; *severe burning in stomach*; vomiting, with violent retching and burning thirst; urine scanty, burning—constant desire, passing few drops at a time.

Phosphorus.—Vomiting of blood, mingled with bile or mucus; great fullness of stomach, with painfulness to pressure and cutting pains; vomiting of water as soon as it becomes warm in the stomach.

Mercurius.—Pasty coating on tongue; extremely violent thirst; much saliva collects in mouth; bitter, sour vomiting.

Iris.—Great burning and distress in epigastrium; vomiting, with great prostration; burning in mouth, fauces, and œsophagus; headache.

Eminently adapted to many forms of mucous gastritis.—*Hughes.*

Aconite.—Simple gastritis, from cold; distention, with burning, throbbing pains; attack preceded by chill when *muscular coat* of stomach involved. DOSE.—“Tincture.”—*Hempel*.

Veratrum alb.—Hippocratic countenance; eyes sunken and glazed; lips blue; extremities cold and covered with clammy sweat; almost imperceptible pulse; intense thirst for cold drinks.

Antimonium crud.—Great nausea; paroxysms of clawing, pressing pain; loathing of food; tormenting thirst; tongue with thick, white coating.

One of the chief remedies for gastric catarrh without fever.—*Baehr*.

Ipecac.—Feeling of emptiness, with pinching pains and bloating; insipid, bitter, rancid taste; vomiting of ingesta, bile, and mucus, and persistent nausea. Brought on by eating sour or fat food.

Bryonia.—Stomach bloated; exceedingly sensitive; nausea, with feeling of coldness and chills, and faintness on sitting up.

Pulsatilla.—Brought on by eating fats, fruits, ices, or acid food; chilly creepings; sensation as of a mass of undigested food in stomach; greasy, rancid, bitter taste; tongue thickly coated; *absence* of thirst.

Nux v.—After abuse of drugs, stimulants or condiments; bitter or sour taste; sour belching; fullness and pressure in stomach; continued frontal headache, especially in morning; not much pain.

GASTRIC CATARRH — CHRONIC.

REMEDIES.

Sulphur, Lycopodium, Nux v., China, Bismuth, Pulsatilla.

VOMITING.—*Ipec., Kreas.*

HEARTBURN.—*Puls., Caps.*

WATERBRASH.—*Lyc., Nux v.*

ACIDITY.—*Calc. carb., Phos., Sulph. ac.*

FLATULENCE.—*Carbo veg., Lyc., Arg. nit.*

GASTRALGIA.—*Nux v., Bism., Cocc., Hydroc. ac., Ars.*

GENERAL MEASURES.

Acute.—During the height of attack, *no food whatever*. Give bits of ice to slake thirst. If the attack is protracted, and it becomes necessary to nourish the patient, use nutrient enemata. As improvement progresses, feed *cautiously*. First, ice cream, iced milk with lime water. Then, *starchy* foods only — arrowroot, rice, barley water, gruels. Later, broths. No solid food until recovery is complete. *Chronic*. Care in diet, as in dyspepsia. Avoid tea and coffee, puddings, sauces, stimulants, fresh bread. *Eat slowly and*

masticate thoroughly. Buttermilk is excellent. A milk diet often curative.

Wear warm clothing, and take salt-water sponge-baths to excite activity of the skin.

Drinking water *as hot as can be taken* often relieves distress, and stops nausea and vomiting.

GASTRIC ULCER.

DANGERS.—Perforation of the wall of the stomach. Hemorrhage from rupture of a vessel.

LEADING REMEDIES.

Arsenicum.—Constant thirst; distention, pressure, or cutting in epigastrium; nausea; fainting; waterbrash; vomiting thick, glairy mucus, or a brownish, blackish fluid; burning in stomach, with great pain on pressure.

When ulcer at pyloric end.—*Hughes.*

Deserves to be classed in foremost rank.—*Baehr.*

Argentum nit.—Violent gnawing, griping, and burning; painful swelling of stomach, with *violent belchings.*

Kreasote.—Vomiting, with heat and burning in stomach and bowels; foul and sanious matter vomited, indicative of disorganization of mucous membrane.

Cantharis.—Severe burning pains in stomach, burning thirst, vomiting, with violent retching.

Kali bi.—Yellow-coated tongue, nausea, foul taste, and faintness; giddiness, followed by violent vomiting of a white, mucous, acid fluid, with pressure and burning in stomach; vomiting of sour, undigested food, of glairy fluid, of blood.

Ulceration near cardiac end.—*Hughes.*

Hydrastis.—Sour eructations; dull aching, causing a weak, faint, gone feeling; cutting pains, with oppression and sense of weight; acute, distressing pain, with nausea, acidity, and loss of appetite.

SPECIAL REMEDIES.

Ipecac., Hamamelis, Kreasote.—For hæmorrhage.

Atropine.—No medicine better to subdue the frightful cardialgic pain of ulcer of the stomach.—*Baehr.*

Opium.—Perforation. “The only favorable recorded terminations to this event are those in which the opiate treatment was pursued.”—*Dr. Wilson Fox.*

GENERAL MEASURES.

Complete cure possible in all recent cases. During the severity of the disease, *absolute rest*, confinement to bed; maintain *warmth* of the body.

Diet.—In *severe* cases, *give the stomach absolute rest*—nourish by nutrient enemata—beef tea and milk, or nutrient

suppositories. This treatment continued thirty days will cure the most obstinate case. Return to a solid diet gradually—*milk only* at first—then broths and gruels, and soft food. No sugar allowed.

In other cases, milk diet will accomplish the desired result. Add lime water, and a little boiled arrowroot to the milk. During the course of treatment let the patient drink occasionally a teacup of *weak* dilution of *Calendula*.

Perforation.—Usually follows a *hearty meal*. Order *absolute repose*. Give *Opium*, to prevent movements of the stomach. Continue the opium treatment many days.

Hæmorrhage.—Rest, ice, and the indicated medicine.

HÆMATEMESIS.

DIFFERENTIAL DIAGNOSIS.

	HÆMATEMESIS.	HÆMOPTYSIS.
Blood - - - -	Dark - - - -	Bright-red.
Blood - - - -	Vomited - - - -	Coughed up.
Blood - - - -	Fluid - - - -	Frothy.
Blood mixed with	Food - - - -	Sputum.
Preceded by - -	Nausea - - - -	Chest pain.
Preceded by - -	Stomach distress -	Dyspnœa.
Stools contain - -	Blood - - - -	No blood.
Respiration - -	Clear - - - -	<i>Râles</i> in lungs.

LEADING REMEDIES.

Ipecac.—Sudden attack, with great paleness of face and nausea; vomiting of blood, or pitch-like substance; indescribable sick feeling in stomach; pulse scarcely perceptible; fainting.

Has long-established reputation and deserves the preference.—*Hughes*.

There is no more efficacious remedy.—*Baehr*.

Hamamelis.—Thin, dark blood; fullness and gurgling in abdomen; blood in vomit and stools.

A number of excellent cures have been reported.—*Hempel*.

Arnica.—From mechanical injury or over exertion; vomiting of dark coagula; soreness as if from a bruise.

Aconite.—Excruciating pains in stomach; gagging, retching, gasping for breath; distressed face, anguish, cold sweat on forehead. With great vascular excitement, pulse full, bounding, and rapid.

Arsenicum.—Extreme palpitation; anguish; violent thirst; small, quick pulse; chilliness.

Belladonna.—Congestion of head and stomach; singing in ears; flickering before eyes; red cheeks; feeling of fullness and warmth in stomach.

China.—For secondary symptoms, after all bleeding has ceased.

GENERAL MEASURES.

Command absolute rest in a horizontal posture; loosen the clothing and keep the patient quiet and free from excitement. Room cool and airy. Let the patient swallow small bits of ice, or, in its absence, take frequent sips of cold water. Drinking *hot* water will sometimes succeed better than cold. Cold applications over the stomach are harmful; mustard plaster better. Following the attack, keep the stomach at rest; nourish by enemata. The first food must be *cool*, and *liquid*. No solid food until *every trace of pulsation* in the epigastrium has ceased. Fainting need not alarm — bleeding stops if the patient faint. Give the medicine at frequent intervals.

SICK HEADACHE.

SYNONYMS: *Gastric Headache; Bilious Headache.*

LEADING REMEDIES.

Iris.—Sick headache, beginning with *blur* before the eyes, followed by nausea and vomiting; dull, heavy, frontal headache, with continuous nausea, and vomiting of mucus and bile.

In "sick headache" this is a most reliable remedy. Give the mother-tincture, ten drops in a half-glass of water, a teaspoonful at *frequent* intervals—every ten minutes. Your patient should experience relief in twenty or thirty minutes.

Ipecac.—Headache as if the brain and skull were bruised, even to root of the tongue; intense and constant nausea.

Nux v.—Sick headache brought on by wine, coffee, close mental application, sedentary habits; begins in morning, increases through the day, with dimness of vision, sour, bitter vomiting, constipation; worse from noise, and after eating.

Podophyllin.—Bilious headache, beginning with blur before the eyes, darting pains in forehead; or, stunning headache through temples, giddiness, flushed face, heart-burn, nausea, bilious vomiting, and diarrhœa.

Chelidonium.—In bilious temperaments, darting, tearing, throbbing pains in forehead and temples, with heaviness and coldness in occiput, accompanied by vertigo, anxiety, melancholia, nausea, and bilious vomiting.

When clearly of hepatic origin.—*Hughes.*

Bryonia.—Head aches as if it would split, made worse by stooping or motion; gets sick and faint on sitting up; *sour, bitter vomiting.*

Veratrum alb.—*Severe* bilious vomiting, distressing headache, faintness from violence of attack.

Hepar sulph.—“A valuable remedy in chronic cases.”

—*Laurie.*

Naja.—Temporo-frontal; dull pain.

A very valuable remedy.—*Holcombe.*

HEADACHES OF FEMALES.

LEADING REMEDIES.

Sepia.—Disorders of the sexual functions; irregular, scanty menses; leucorrhœa; dark rings under the eyes.

Platina.—Plethoric, animated, and sensitive subjects; dark hair; rigid fiber; menses profuse, accompanied by colicky pains.

Ignatia.—Hysterical subjects, with disposition to convulsions; headache periodical—passes off with flow of pale, limpid urine; feeling as if nail were being driven into head.

Cocculus.—Reflex uterine headache; menstrual colic; dull headache, with vertigo and nausea.

Actæa.—Hysterical and menstrual headache; pain extends to eyeballs, attended by faintness, and “sinking” at pit of stomach.

DIARRHŒA — ACUTE.

LEADING REMEDIES.

Aconite.—After checked perspiration, after cold or damp; frequent, scanty, loose, green stools, with tenesmus, fever, and restlessness.

Aloes.—Pain and rumbling in the bowels before stool; escape of great quantities of flatus with stool; constant urging to stool; stool involuntary, with escape of flatus; stool seems to pass without exertion; after stool sensation as if more in rectum.

Antimonium.—Stools watery and profuse, with disordered stomach and white-coated tongue; alternate constipation and diarrhœa.

The gastric symptoms predominate.—*Bell.*

Arsenicum.—Watery, mucous, or bloody discharge; great weakness, faintness, and rapid exhaustion; thirst and restlessness; burning in rectum; emaciation; pallor; sunken cheeks; stools watery, *fetid*, painless.

Note especially the great restlessness and the exhaustion after the stool, and the *sticky* perspiration.—*P. P. Wells.*

Apis mel.—Stools greenish, yellowish, slimy mucus, or yellow watery; tongue dry and slimy; little or no thirst; hands blue and cold.

The absence of thirst, existing with a dry tongue, and dry, hot skin, are characteristic.—*Bell.*

Bryonia.—Diarrhœa in *hot weather*; stools brown, thin, fecal, or containing undigested matter; aggravation in morning as soon as he moves.

Calcarea carb.—Scrofulous subjects; distended abdomen, with emaciation; whitish or watery stools; chronic diarrhœa, with chalk-like stools.

The stools are of less importance than the person.—*Bell.*

Chamomilla.—Green, watery passages, often mixed with feces and mucus.

The cases for *Cham.* are those of early childhood, during the process of teething and from taking cold.—*P. P. Well's.*

China.—Frequent, watery stools, containing undigested matter, with pinching colic, occurring especially at night.

Croton.—Yellow, watery, or greenish-yellow stools, expelled with great force.

The three highly characteristic symptoms of yellow, watery stool, sudden expulsion and aggravation from food and drink, form a trio whose presence will make success certain and brilliant.—*Bell.*

Dulcamara.—Stools yellowish, greenish, watery, with colic. From “taking cold” in cold, damp weather.

Gummi gutt.—*Yellow or green stools, mixed with mucus,* preceded by excessive cutting about umbilicus.

One of the most important remedies in the treatment of diarrhœa, acute and chronic.—*Bell.*

Ipecac.—Stools as if fermented, green, with nausea and colic; frequent stools of greenish mucus.

The continuous nausea is the most constant distinctive symptom of *Ipec.*—*Bell.*

Iris.—Bilious stools and bilious vomiting, in hot weather, with much exhaustion and debility.

Mercurius.—Stools slimy, brownish, whitish-gray, acrid, and burning; cutting, pinching pain in abdomen, with chilliness; bilious stool, preceded by colic, followed by tenesmus.

Phosphoric ac.—Diarrhœa not debilitating, though of long continuance; involuntary, with emission of flatus; stool thin, whitish-gray.

One of the most prominent remedies for white, watery diarrhœa, acute or chronic.—*Bell.*

Podophyllin.—Early morning diarrhœa; stool frequent; painless, yellow liquid, with meal-like sediment.

Sulphur.—Diarrhœa some hours after midnight, or driving patient out of bed early in the morning. Stools pappy, greenish-yellow, fetid, slimy.

Very wide range of action. Early morning diarrhœa very characteristic.—*Bell.*

Veratrum alb.—Diarrhœa, violent, painful, copious, with profuse perspiration; stools watery, sudden, involuntary.

A remedy of great value, and very often required. It is useless in painless cases.—*Bell.*

CHRONIC DIARRHŒA.

Arsenicum, Calcarea carb., China, Ferrum, Gummi gutt, Hepar sulph., Lycopodium, Phosphorus, Phosphoric ac., Podophyllin, Sulphur.

GENERAL MEASURES.

Those who are subject to diarrhœa should wear a flannel binder about the abdomen; wear warm clothing; avoid ex-

posure to wet and cold; keep the feet dry; look to drainage, and see that there is no sewer gas in dwelling, during acute attacks, *absolute* rest in bed.

Diet.— In *acute* attack, the less food the better. Avoid the use of solid food, liquors, coffee, strong tea, fruits, or vegetables; no potatoes; let diet consist of milk and lime water, broths, gruel, rice (well cooked), barley water, whey, panada, beef tea, with a teaspoonful of isinglass to the half pint. In *chronic* diarrhœa, nourishing but simple and easily digested food—fresh meat, mutton, beef, soft eggs; milk diet good. Avoid salt and cured meat, pork, veal, and fresh vegetables.

DYSENTERY.

LEADING REMEDIES.

Mercurius cor.—Distressing, persistent *tenesmus*, and cutting, colicky pains. After stool, burning and tenesmus of rectum and bladder. Urine scanty, hot, bloody, or suppressed. *Stools* frequent; mucus mixed with blood, or almost pure blood.

May safely be regarded as specific remedy for whole process.—*Baehr*.

Applicable when occurring in great intensity, and accompanied by the characteristic urinary symptoms.—*Bell*.

Nux v.—Frequent, small evacuations, with violent tenesmus; pressing pains in the loins and upper part of the sacral region, with sensation as if broken; great heat and thirst, with redness of the face. The pains and tenesmus *cease with the evacuation*.

The importance of this drug in the treatment of dysentery is hardly second to that of any other.—*P. P. Wells*.

Aconite.—*Early in attack*, with fever, dry heat, great restlessness. *Stool* bloody, slimy, scanty, frequent, with tenesmus. **DOSE.**—The lower attenuations are to be preferred.—*Hempel*.

In *very beginning*, often able to cut short dysentery.—*Bell*.

Belladonna.—Violent fever; retention of urine; severe gastric derangement; nausea and vomiting; violent urging; scanty discharge of slimy, bloody stool, with tenesmus; abdomen distended, hot, and painful; spasmodic, clutching pains.

Often the only remedy required for severe cases of infantile dysentery.—*Bell*.

Next to *Merc.* the most important remedy in dysentery.—*Baehr*.

More likely to be appropriate in the early stage, when the inflammation extends to the serous tissues.—*P. P. Wells*.

Aloes.—Loud gurgling in abdomen. *Before stool*, sensation of fullness and weight in pelvis; *after stool*, faintness. *Stool* bloody, jelly-like mucus. *Tenesmus very severe*.

One of our most valuable remedies in dysentery.—*Bell*.

Cantharis.—Stool of blood and mucus, like scrapings from intestines; with stool, cutting in abdomen; after stool, shiverings; scanty urine, and tenesmus of bladder.

Appearance like scrapings of the intestines is the most characteristic symptom of *Canth.*—*Bell.*

Capsicum.—Stools of mucus, streaked with black blood; cutting colic; tenesmus; drawing pains in back; drinking causes shuddering; tenesmus of bladder; strangury.

This is one of the most important remedies in dysentery, and is nearly allied to *Nux v.* and *Merc.*—*P. P. Wells.*

One of the royal remedies for dysentery.—*Bell.*

Arsenicum.—Stools dark, bloody, acrid and excoriating, with tenesmus and burning in anus and rectum, and great prostration. Called for when case is far advanced; discharges dark and fetid; prostration extreme.

SPECIAL REMEDIES.

China.—Intermits; returns periodically.

Colocynthis.—*Very severe* colicky pains.

Dulcamara.—Autumnal, from cold and wet.

Sulphur.—After violence of attack has passed.

Rhus.—Low fever; involuntary, thin, at night.

Colchicum.—Jelly-like, skinny stools; autumnal.

Arnica.—Tormina; tenesmus; much hæmorrhage.

Podophyllin.—Prolapse of bowel with every stool.

Ipecac.—Much nausea and vomiting; bloody stools.

CHRONIC DYSENTERY.

REMEDIES.

Nitric ac., Phosphoric ac., Sulphur, China, Calcarea carb.

GENERAL MEASURES.

Absolute rest in bed; keep disinfectants, sulphate of iron and carbolic acid, in bed-pan; dispose of discharges with antiseptic precautions; preserve free ventilation; change sheets and clothing daily. If distressing tenesmus, enema, consisting of two ounces boiled starch, containing thirty drops *Laud.*, or five grains *Chlo. hyd.* Suppository, containing one-half grain alcoholic extract *Bell.*, also excellent. Hot fomentations to abdomen often relieve the pain. *Free injections of hot water* will relieve the distress accompanying a severe attack of dysentery, and help cut short the disease. *Chronic.*—Keep the abdomen warm by a flannel binder. Avoid cold and wet. Warm clothing. Remove from malarial district.

Diet.—Cold drinks often aggravate the colic. Simple diet—scraped meat, milk, gruel, barley water, rice-flour gruel. *Avoid* solid foods, fruits, vegetables, and stimulants.

PERITONITIS.

ACUTE IDIOPATHIC.

LEADING REMEDIES.

Aconite.—From cold, with predominance of *febrile* symptoms. Burning, cutting, darting pain in bowels.

Indispensable.—*Hughes*.

The principal remedy.—*Jousset*.

Belladonna.—Severe congestions of head and chest, with anguish, dyspnœa, restlessness, dark-red, and bloated face; continual distressing vomiting of bile, alternating with retching; intestines distended, so that convulsions can be felt. Also, for the *vomiting*, in later stages.

Suitable only at the commencement.—*Baehr*.

Bryonia.—Stage of exudation; stitching, lancinating pains in bowels, worse from slightest motion; tongue white and dry; great thirst; bowels constipated.

When primary fever relaxes, and effusion threatens.—*Hughes*.

Mercurius cor.—Frequently exacerbating fever, with creeping chills, and copious perspiration after the heat; peritonitis secondary to wounds and operations in abdomen; tendency to *purulent* effusion; abscesses.

Has high curative power.—*Hughes*.

Veratrum alb.—Copious and frequent vomiting; face pale and sunken; skin cold; pulse small; anguish, restlessness, and distressing thirst.

Colocynthis.—Diarrhœa, with rectal and vesical tenesmus, with or without colicky pains.

Circumscribed peritonitis, from extension from abdominal organs.—*Jousset*.

Opium.—Great distention of abdomen; retention of stool and urine; complete inactivity of bowels; paralytic weakness of intestinal canal, remaining after disappearance of the exudation.

Arsenicum.—Sudden sinking of strength; cold, clammy perspiration; restlessness; thirst; constant vomiting; burning in abdomen. Also, later, when copious and persistent exudation.

Sulphur.—To excite and promote absorption of the exudation.

GENERAL MEASURES.

Warm fomentations; or, in some cases, *cold* compresses do more good than hot. Keep the patient at perfect rest, and avoid all mental or emotional excitement. Keep the room well ventilated, and at an even temperature. Sometimes necessary to remove even the weight of the bed clothes from the abdomen, by barrel hoops, or suitable contrivance. Turpentine stupes over the abdomen.

Diet.—For intense thirst of the early stage, give bits of ice. Ice *swallowed* sometimes relieves vomiting. As the appetite returns, give food which will leave but little fecal residue. If much exhaustion, broths and nourishing food. Return to diet of solid food very gradually and cautiously.

COLIC.

LEADING REMEDIES.

Colocynthis.—Extremely severe, cutting, griping, intermittent, abdominal cramps, causing patient to bend double, with much moaning and complaining.

Chamomilla.—Flatulent colic; the abdomen much distended; flatulence passes in small quantities, without much relief; pinching, twisting pain; great impatience; children want to be carried.

Nux v.—Flatulent colic from indigestion; cramps in stomach, with upward pressure; cutting, pinching pains; frequent urgings to stool without effect.

Iris v.—Severe, flatulent colic, with sickness of stomach, and headache. This remedy will often help when others fail.

Plumbum.—Violent, constrictive, pinching pain in region of navel; retraction and hardness of abdomen; flatulence and *obstinate constipation*; face and skin pale, bluish, or yellow; chronic enteralgia.

Opium.—Great accumulation of gas in intestines, with great distention of abdomen, and cutting, pressive, and twisting pains; complete inactivity of intestines.

Dioscorea.—Sudden attacks, with vomiting of food; pain changes from one part of abdomen to another, with much rumbling.

COLIC:—

INDIGESTION.—*Nux v., Puls., Ipec., Ars.*

INFANTS.—*Cham., Bell., Cina, Ipec., Iris.*

BILIOUS.—*Merc., Ipec., Podo., Dios., Iris.*

NERVOUS.—*Coloc., Bell., Ign., Opium, Plumb.*

FLATULENT.—*Nux v., Cham., Lyc., Dios., Iris.*

RHEUMATIC.—*Verat. alb., Dulc., Bry., Puls., Rhus.*

GENERAL MEASURES.

If the stomach contain a mass of indigestible food, give warm water and salt; tickle the back of the throat, and produce emesis. Drinking a large quantity of warm water often relieves. Place the patient on his left side, with the hips raised, and give a *copious* injection of warm water; retain as long as possible; apply hot fomentations to the abdomen.

LEAD COLIC.

REMEDIES.

Opium, Platina, Alumina, Belladonna, Arsenicum, Stramonium.

Opium.—Retraction of abdominal muscles; slow pulse; obstinate constipation.

Soon gives relief.—*Hughes.*

A most valuable specific.—*Baehr.*

After-effects.—*Stram.*: Paralysis. *Bell.*: Amaurosis.

GENERAL MEASURES.

In acute attack, give free milk diet, and let the patient drink large quantities of soft water. Use copious warm injections; warm baths.

Workers in lead should bathe and wash carefully, and change linen frequently; do not eat in the workshop; keep up free ventilation. After one attack, change of occupation *only* will exempt from repetition.

CONSTIPATION.

LEADING REMEDIES.

Sulphur.—Hard, knotty stools, accompanied by hæmorrhoids, followed by burning pain in anus and rectum; flushes of heat; frequent weak, faint spells. Good with which to begin treatment. The improvement begun under *Sulph.* must be followed by some other remedy.

Nux v.—For those of sedentary habit, high livers, and after abuse of drugs. Frequent, ineffectual urging to stool, which is large, hard, and passed with great difficulty. Dyspepsia and hæmorrhoids. Often acts well after *Sulph.*

Opium.—*Complete torpor of bowels*; stools hard and lumpy; headache; drowsiness; dizziness; congested face; abdomen much distended, with almost complete paresis of intestines.

Plumbum.—Stools of small, hard balls; frequent attacks of violent colic, retraction of abdomen; sense of constriction of sphincter ani.

The chief indication for the use of *Plumb.* in constipation is the constant presence of a spasmodic or colic-like pain.—*A. C. Pope.*

Hydrastis.—Headache and hæmorrhoids; Severe pain in rectum after stool for hours. Especially useful after abuse of purgative medicines. **DOSE.**—Drop of mother-tincture, once daily, before breakfast, for a week.

Has been curative of constipation more frequently than any other remedy.—*Hughes.*

Platina.—Difficult expulsion of soft stool; frequent urging, great straining, passing but small quantities; putty-like stool, sticking to the anus; constipation while traveling.

Æsculus.—Dryness of rectum, feeling as if full of small sticks; painful hæmorrhoids, with severe backache.

Lycopodium.—Stools hard, scant, and passed with great difficulty; ineffectual urging; acidity and heartburn; loud rumbling and gurgling in bowels.

Graphites.—Stools large, hard, and knotty; tendency to cutaneous disorders.

Nitric ac.—Stools hard, dry, and scant, and passed *without pain*; headache; sour or bitter taste after eating; sour eructations; excessive flatulence.

In the front rank of remedies for constipation.—*Dyce Brown.*

Ignatia.—Constipation, with prolapsus of rectum on slight effort to evacuate; creeping, itching sensation in abdomen.

Bryonia.—Hard, large, dry stools; chilliness; pain about the liver; rheumatic tendency, accompanied by symptoms of indigestion; frequent eructations after meals; headache.

GENERAL MEASURES.

Drink a goblet of oatmeal water every morning on rising. Avoid tea and coffee. Let the diet consist largely of coarse meals, succulent vegetables, and juicy fruits. Eat brown bread rather than white.

Diet.—*Avoid*—Tea, coffee, wine, beer, pork, veal, salt meats, cheese, beans, cakes, pastry, pickles, biscuit, fresh bread, muffins, griddle cakes. *Eat*—Mush, hominy, oatmeal, wheaten grits, corn bread, greens, cresses, squash, turnips, spinach, cabbage, tomatoes, asparagus, cauliflower, figs, pears, prunes, peaches, apples, oranges, melons, grapes, cherries, berries.

HÆMORRHOIDS.

LEADING REMEDIES.

Æsculus hip.—Hæmorrhoids like ground nuts, of a purple color, very painful, with burning sensation; itching, burning pains, with sensation of fullness and dryness of rectum; slight hæmorrhage; severe aching pains in back; constant and severe backache, extending to sacrum and hips; stool *hard and dry*, passed with difficulty, followed by sensations of constriction, fullness, dryness, and pricking pains in rectum.

Almost specific.—*Hughes.*

Hamamelis.—*Profusely bleeding hæmorrhoids.* Burning, itching, and rawness of anus; weakness of back—feels as if it would break; discharge of large quantities of dark blood.

Never fails in true varicosis.—*Hughes.*

In excessive hæmorrhage a certain remedy.—*Joussel.*

Aloes.—Hæmorrhoids, with flow of hot, blackish blood; hæmorrhoids protrude, like bunch of grapes, with constant bearing down in rectum; great heat and tenderness of the tumors, relieved by cold water; heat in bowels, and heat and painful pressure in liver; painful inflammation of the tumors.

Collinsonia.—Blind or bleeding piles, with sticking pains in rectum; obstinate and habitual *constipation*; stools lumpy and light-colored; uterine disorders; congestive inertia of lower bowel.

In constipation and hæmorrhoids I prefer it to *Aloes*.—*Hughes*.

Nux v.—For blind or bleeding piles. From abuse of spirituous liquors, or sedentary habits. Bleeding, burning, and frequent protrusion of the piles; abdominal plethora; tearing, pressing, bruised pain in small of back; habitual constipation.

Sulphur.—Bleeding, burning, and frequent protrusion of the piles; stinging, burning, and soreness, in and about anus; itching and tenesmus after a soft or bloody stool; alternate constipation, and discharge of blood-streaked mucus.

SPECIAL REMEDIES.

Capsicum.—Burning and itching.

Ferrum.—Cachectic constitutions.

Aconite.—Inflammation of tumors.

Hepar sulph.—Chronic hepatic affection.

Arsenicum.—Emaciated subjects; burning pain.

Podophyllin.—Portal congestion; bilious subjects.

GENERAL MEASURES.

Avoid soft cushions, and feather beds. Sedentary habits are bad. Correct uterine disorders. Make a habit of going to stool *shortly before bedtime*. Injections of cold water are beneficial. If the piles are inflamed and tender, anoint with *Acon.* cerate, and sit over steam of hot water.

Ointment of *Boracic ac.* and *Vaseline* has magic effect in relieving *itching* piles.

Make cerate, or suppository, containing mother-tincture of *Æsc.*, *Hamam.*, *Aloes*, *Collins.*, or other indicated remedy, and use locally.

Diet.—Avoid coffee, peppers, spices, stimulating or highly seasoned food, beer, wine, spirits; and *do not over eat*. During attack, no meats: vegetables and fruits best.

ENTOZOA.

TÆNIA SOLIUM.

(TAPEWORM.)

Pepo semen.—Take one ounce of pumpkin seed, the shells having been removed; mash it up, and make an emulsion with milk. Take this dose at bedtime, after having fasted from breakfast. In the morning, take a tablespoonful of castor oil, abstaining from breakfast. Use one-half this dose for children under twelve.

Filix mas.—℞. Ol. Filic maris - - ℥j.
 Mucilag. - - - -
 Glyeer. aa - - - ℥ij.
 Aqua. dest. - - - ℥j. Mix.

Dose.—Give in four doses, fasting, and follow by castor oil. Or, give drop doses *Male Fern*, every four hours, and a dose of *Merc. cor.* night and morning. Continue several days.

Punica gran.—Use the *freshly prepared* fluid extract of the bark of *Pomegranate root* (*Gran. rad. cort.*). In the morning before eating give the patient a dose of castor oil, and in one hour follow this by a dose of *one ounce* of the fluid extract of *Pomegranate*, taken in a wineglassful of water. Repeat this dose at intervals of one hour, until three ounces have been taken.

This will cause the *prompt* expulsion of the *entire* worm. Failure will only follow the use of an inert preparation of the drug.

Rottlera tinct.—Give two or three teaspoonfuls of tincture, after twelve hours' fasting. A dose of *Castor oil* may be given if no purgative action follow the taking of the medicine.

This is the pleasantest, safest, and surest remedy with which I am acquainted.—*Lewis Sherman.*

ASCARIS LUMBRICOIDES.

(ROUND WORM.)

Santonine.—Give two-grain doses of 2x trituration every three hours. This is a genuine specific for the round worm. For young children use *Cina*.

The symptoms indicating the presence of worms, and calling for this remedy, are—Boring at the nose; livid circles about the eyes; slight fever; fretfulness and ill temper; short, hacking cough; coated tongue; bad breath; tossing

and uneasiness, or crying out in sleep; nausea and vomiting; capricious appetite; itching of nose and anus; the urine white and thick; sometimes convulsions.

Mercurius cor., Antimonium crud., Stannum.—The existence of worms is usually accompanied by an unhealthy state of the mucous membranes of the intestines, which secrete a large quantity of tenacious, slimy mucus. To correct this condition, *Merc. cor.*, *Ant. crud.*, or *Stan.*, the principal remedies, must be given, when the worm symptoms will all disappear.

OXYURIS VERMICULARIS.

(PIN WORMS.)

Teucrium.—*Thread worms*, with much itching and irritation about the anus, especially troublesome in the evening; depraved or capricious appetite; pains in the epigastrium; picking at the nose; offensive breath; straining at stool; disturbed sleep, and general restlessness.

Lard should be applied locally; it relieves the irritation, destroys the worms, and stops their breeding.

DISEASES OF THE LIVER.

CONGESTION OF THE LIVER.

LEADING REMEDIES.

Podophyllin.—Feeling of fullness in right side, with *acute pain in one spot*; active congestion, with pronounced bilious symptoms; diarrhœa; prolapsus ani; bitter taste; sallow complexion.

When "bilious" symptoms predominate, best remedy.—*Hughes*.

Leptandrin.—Aching pains in liver; yellow-coated tongue; profuse, papaceous, tar-like, very fetid stools; constant dull pain in region of gall bladder; *much soreness* in head and eyeballs.

Iris.—Pain over liver; crampy pain in back; flatulency in bowels; griping pains; headache; vomiting; lassitude; prostration. Excites the biliary secretion.

A specific remedy.—*Hughes*.

Sulphur.—Chronic cases, hepatic cases from portal engorgement. Constipation, or early morning diarrhœa; frequent weak faint spells, with flashes of heat.

A remedy of great value.—*Hughes*.

In chronic, holds the first rank.—*Baehr*.

Sepia.—Replaces *Sulph.* in women at climacteric.

Chelidonium.—Chronic congestion. Constant pain under inner angle of right shoulder blade; sallow skin; yellow-coated tongue; dull headache; constipation; fullness in region of liver.

Has high value as a hepatic remedy.—*Hughes*.

Nux v.—Enlargement and induration; shooting, pulsative pains; excessive tenderness in region of liver; pressure in epigastrium and hypochondria, with shortness of breath and constipation; active congestion, from excess of stimulating food or alcohol.

Lachesis.—Acute pain in liver, extending toward stomach; cannot bear any pressure about hypochondria. Suitable in obstinate cases of drunkards.

Cured a very severe case of chronic congestion, with jaundice and pain.—*Joussel*.

GENERAL MEASURES.

Often caused by a too abundant, highly seasoned, and stimulating diet, and alcoholic drinks. Hence these must be avoided. Observe regularity in the hours of meals; eat light; avoid tea, coffee, and "hearty" food, and stimulants.

HEPATITIS.

PROGNOSIS.—Grave. *Unfavorable:* Abscess; emaciation; hectic; hepatitis following dysentery. Most recoveries follow discharge of abscess through the lung; next, intestine, intercostal space, cavity of pleura, abdominal wall, in the order given, the latter being almost invariably fatal. When air obtains free access to the cavity of a hepatic abscess, a favorable result seldom follows. Multiple abscess unfavorable.

LEADING REMEDIES.

Aconite.—Beginning of attack — *violent inflammatory fever*, with insupportable, shooting pains in region of liver; tossing and great restlessness.

Belladonna.—Oppressive pain in region of liver, extending to chest and shoulders; distension of epigastrium, with difficult and anxious breathing; congestion of head; obscuration of sight; sensation of fainting, violent thirst; sleepless tossing about; nausea; retching, distressing vomiting; continued fever, with high temperature. No use after local pains abate.

Better adapted to this disease than *Acon*.—*Baehr*.

Mercurius.—Fullness and swelling in region of liver, with pricking, burning, oppressive pain, preventing patient's lying on right side, worse on movement of the body; pain in shoulders; anorexia; agonizing thirst; jaundice;

shivering, sometimes followed by sweating, but without relief; acute parenchymatous inflammation.

Most important remedy in worst forms of acute parenchymatous hepatitis.—*Baehr*.

Bryonia.—The pains in region of liver are sharp and shooting, with tension and burning, increased by touch, coughing, or respiration, especially during *inspiration*, and much increased by motion; violent, spasmodic oppression of chest; rapid and anxious breathing; bitter taste; yellow-coated tongue; constipation; severe headache; sub-inflammatory cases.

Hepar sulph.—For threatened abscess, or, after suppuration has begun.

GENERAL MEASURES.

When abscess has been made out, evacuate with aspirator.

JAUNDICE.

LEADING REMEDIES.

Aconite.—Fever; stitches in liver; yellow skin; scanty, dark urine; clay-colored stools; local pain; inflammatory symptoms; or, prostration; vomiting; oppression of chest; blue nails; cadaverous countenance; cold extremities; feeble pulse; collapse.

Has cured some malignant cases.—*Jousset*.

Mercurius.—Duodenal catarrh, with extension of the inflammation to bile ducts; *complete jaundice*; skin very yellow; thickly coated, flabby tongue; nausea; vomiting; loathing of food; grayish-white feces; diarrhœa; tenesmus; urine scanty and dark-red; pain in region of liver; *icterus neonatorum*.

One of the most frequently indicated remedies, with or without fever.—*Raue*.

Chelidonium.—Yellowness of eyes and skin; pain in liver and right shoulder; bitter taste; tongue clean, of deep-red color; stool white; urine dark-red; region of liver distended and painful.

No better remedy.—*Hale*.

China.—Gastro-duodenal catarrh, particularly after great loss of animal fluids, or in malarial jaundice; oppressive headache; perverse appetite, with canine hunger; dingy-yellow complexion; liver swollen, hard, and tender, with spasmodic, stitching pains.

Recurrent form.—*Lilienthal*.

Hydrastis.—Gastro-duodenal catarrh; sense of sinking and prostration at epigastrium, with violent and continued palpitation of heart.

Podophyllin.—Enlargement of liver, with severe pain; urine scanty, and dark-yellow; stools clay-colored; nausea

and vertigo. In complication with gall-stones. Duodenal catarrh.

Arsenicum.—Malignant jaundice; the bile decomposed, poisoning the tissues; black or bluish patches on the skin. Especially valuable when from disorganization of the liver.—*Hempel.*

Phosphorus.—Malignant cases; nausea; epigastric tenderness; numbness of extremities; liver swollen and very sensitive to pressure; chills; pulse weak and low; drowsy, comatose condition; acute hepatic atrophy.

Nitric ac.—Chronic jaundice; enlargement and induration of liver; obstinate constipation; fetid, dark-colored urine; sharp pain in pit of stomach.

Crotalus.—Malignant; typhus icterodes.

Iodine.—Chronic, and after abuse of *Merc.*

Chamomilla.—Acute, from fright or anger.

Sulphur.—Chronic, organic disease of liver.

Nux v.—Chronic constipation; sedentary and intemperate habits.

GENERAL MEASURES.

Hot fomentations, to relieve pain; warm clothing; light diet; broths; roast apples; vegetables; plenty of water.

CALCULI—BILIARY.

LEADING REMEDIES.

Berberis.—Pain; soreness and burning in the biliary tracts, with tendency to gall-stone. Also to be given at the time of the attack, for pain attendant on the passage of gall-stone.

Arsenicum.—Severe attacks; the patient pallid and exhausted; covered with cold sweat; the syncope interrupted only by efforts to vomit. Give this remedy to excite reaction.

Calcarea carb.³⁰—Give frequent doses every fifteen minutes, during paroxysm, to relieve pain.

Dr. Drury's recommendation led me to try it. The effect of this remedy in the next case I had was something marvelous, and it has never failed me since. Drs. Bayes and Dudgeon have also borne testimony to its efficacy.—*Hughes.*

China.—To correct tendency to formation. "I give usually *Chin.* 6x, six pills twice a day, till ten doses are taken; then six pills every other day, till ten doses are taken; then every third day, till ten doses are taken; and so on, till at length the dose is taken only once a month. I have not failed to cure, in a single instance, permanently and radically, every patient with gall-stone colic who has taken the remedy as directed."—*Dr. David Thayer.*

Chelidonium.—"Has cured numerous cases."—*Hate.*

TO PREVENT RETURN.—*Chin.*, *Berb.*, *Chel.*, *Nux v.*, *Podo.*, *Merc.*, *Sulph.*

GENERAL MEASURES.

At the time of the attack direct efforts to moderate the pain and set free the impacted calculus. Apply *hot* fomentations, or chloroform liniment. A full, warm bath helps. Olive oil, taken in large quantities, sometimes promotes easy passage of the stone. In severe cases, failure to relieve excruciating pain may necessitate resort to inhalations of chloroform, or morphine hypodermically.

Diet.—Eat sparingly of animal foods; abstain from use of fatty and saccharine substances. Do not have meals at too great intervals, as the gall bladder should be frequently emptied. *Carlsbad* and *Vichy* waters have proved curative.

DISEASES OF THE KIDNEYS.

NEPHRITIS — ACUTE.

LEADING REMEDIES.

Aconite.—Acute idiopathic, from cold; high fever; restlessness; dark, scanty urine; stitches in region of kidney.

Cantharis.—High fever; urine scanty, high-colored, bloody, passed drop by drop, with scalding, burning pain, with tearing pains in loins. Very useful in *post-scarlatinal* and *post-diphtheritic* nephritis.

Apis.—Renal pains; urine scanty, albuminous; sudden œdema. Especially useful in post-scarlatinal nephritis, and the congestion of kidneys of pregnancy, with œdema.

Terebinthina.—Passage of scanty, dark, and bloody urine. "Coffee-ground" sediment in urine.

Almost infallible in renal congestion.—*Hughes.*

Belladonna.—Shooting pains from kidneys to bladder; renal region very tender to pressure; urine orange-yellow, or bright-red, depositing a thick sediment. Important remedy for congestion of kidneys.

Arsenicum.—Urine scanty, dark-brown, and albuminous; great thirst and restlessness; pale, waxy skin; œdema of parts, or anasarca.

The best remedy in most cases of post-scarlatinal nephritis.—*Hughes.*

Hepar sulph.—Threatened suppuration; cessation of the acute pain; sensation of throbbing and feeling of weight in renal region; alternate chills and flushes of heat, followed by perspiration.

GENERAL MEASURES.

Absolute rest in bed; hot fomentations to the small of the back; drink large quantities of soft water.

Diet.—Milk and vegetables, avoiding meats and all stimulants.

BRIGHT'S DISEASE.

VARIETIES:—I. *Parenchymatous Nephritis*; the inflammatory affection; affecting the tubules, or stroma, or both.

II. *Red Granular Kidney*; the cirrhotic, or gouty affection, originating in the fibrous stroma.

III. *Amyloid Kidney*; the waxy, or amyloid affection, originating in the vessels.

PARENCHYMATOUS NEPHRITIS.

PROGNOSIS.—*Acute*, often followed by recovery; if it reach the *second stage* (Degeneration) recovery is very rare; the *third stage* (Atrophy) is invariably fatal.

CAUSES OF DEATH.—Uremia; meningitis; peri- and endo-carditis; pneumonia.

LEADING REMEDIES.

Cantharis.—Early stage. Urine scanty, albuminous, high-colored, scalding; aching pains across the loins. Urine contains a large quantity of epithelial cells. Headache; delirium; convulsions; coma. Most useful where desquamation is considerable, and uræmia threatens.

Terebinthina.—Idiopathic parenchymatous nephritis; urine scanty, dark, smoky, bloody; much albumin, and many blood-casts; anasarca. Of no use in uræmia. There must be blood in the urine in order for this remedy to be indicated.

Arsenicum.—Large white kidney; skin pale and waxy; partial or general dropsy; puffy appearance and debility; urine scanty, albuminous, containing fat globules, renal epithelium, fibrine casts, and a few blood corpuscles. Inflammation of serous membranes.

Cases of cure by this remedy are numerous and brilliant.—*Hughes*.

Phosphorus.—Chronic tubular nephritis; urine high-colored, high specific gravity, containing albumin, oil globules, and exudation cells.

The best remedy in fatty degeneration.—*Hughes*.

RED GRANULAR KIDNEY.

PROGNOSIS.—A cure may be effected in the early stage; later, the patient may live for years, but it is finally fatal.

CAUSES OF DEATH.—Generally uræmia; may be from complications — pneumonia, etc.

Plumbum.—Cirrhotic kidney. Headache; dyspepsia; œdema of face and ankles. *Urine*—low specific gravity, small percentage of albumin, hyaline, and granular casts, and a few blood corpuscles.

In 1876 I made a *cure* in an undoubted case of incipient renal cirrhosis, using *Plumbum met.*, 6x trituration alone. The former patient is in good health at the present writing (1885), and has remained so all these years. In numerous other cases, which, however, were already chronic when coming under treatment, by the same remedy the disease has invariably been arrested in its rapid course, with improvement of all symptoms, although the final result has, of course, been that to which the extensive and far advanced degeneration must inevitably lead. In a case which occurred in my wards in Cook County Hospital a year ago, a cure was effected. No dietetic or hygienic regulations were adopted, but *Plumbum met.*, 6x, alone was relied upon.

SPECIAL REMEDIES.

Nux v.—Dyspeptic vomiting.

Cactus.—Over action of heart.

Apocynum.—For excessive dropsy.

Arsenicum.—Serous inflammations.

Mercurius cor.—Bronchitis in complication.

Phosphorus, Chelidonium.—Intercurrent pneumonia.

GENERAL MEASURES.

Adopt measures to keep the skin active, and promote free diaphoresis. Give vapor baths, or Turkish baths, being careful not to carry it to the extent of weakening the patient. Use, also, salt water and alcohol sponge baths. Let the patient be warmly clad, and avoid cold air, or sudden lowering of the bodily temperature. Take plenty of open-air exercise.

Diet.—Milk diet best. Let the patient gradually leave off all his ordinary food, until he reaches an exclusive *milk diet*. Begin by drinking a quart of milk a day, and gradually increase the quantity from day to day, until finally five or six quarts are taken daily. Divide the day into equal periods, and take a half pint or pint at a time. Keep it up for at least a month.

AMYLOID KIDNEY.

Amyloid degeneration of the kidneys belongs to a cachexia depending on tertiary syphilis or prolonged suppuration, and should be treated in accordance with the nature of the primary affection.

REMEDIES.

Phosphoric ac., Nitric ac., Mercurius, Kali iod., Sarsaparilla, Silica.

CALCULI—RENAL.

LITHIC ACID CALCULI.—*Lyc.*, *Nux v.*, *Puls.*, *Sars.*, *Eupat.*, *Colch.*

Lycopodium.—Disorders of digestion and derangement of liver. Lithic acid crystals (red sand) in the urine.

Nux v.—Disorders of digestion from high living; constipation.

Diet.—Must be carefully regulated. It must be simple, digestible, and *moderate in amount*. Eat *sparingly* of meats; let the diet consist chiefly of *vegetable food*. If meats be eaten, take but a *very small quantity* at any one meal. Avoid rich and highly seasoned dishes, and take no champagne, spirituous, or malt liquors.

Regimen.—An abundance of *out-door exercise* highly important, to supply the system with oxygen. Keep up healthy action of the skin by Turkish baths, and daily frictions with flesh gloves. *Drink large quantities of pure soft water*. Filtered rain water is superior to all others.

PHOSPHATIC CALCULI.—*Phos. ac.*, *Aletris*, *Helon.*, *Ign.*, *Chin.*

Diet.—The diet should be nutritious and simple. Drink freely of *pure water*.

Regimen.—Exercise, change of scene, and mental rest important. Attention to the bladder important; do not let the urine be long retained, and treat first indications of vesical catarrh.

OXALATE OF LIME CALCULI.—*Nitro-mur. ac.*, *Uranium Nitrate*.

Diet.—Avoid the use of *sugar*, rhubarb, asparagus, oils and fats, and spirituous, or malt liquors. Drink no "hard" water—*i.e.*, water containing *lime*.

Regimen.—As in previous form.

Berberis tinct.—Give during the attack of renal colic, to promote passage of the stone.

GENERAL MEASURES.

During passage of a calculus, the intense suffering of the patient must be relieved. Apply hot fomentations over the loins and lower abdomen; put patient into a hot hip bath; give enema of starch and *Laudanum*, thirty to forty drops, and let the patient get the effects of the opiate; inhalations of *Chloroform*, if urgency demands; subcutaneous injections of *Morph. sulph.*; drink large quantities of bland liquids during the attack. If it be a uric-acid stone, give *liquor potassii citratis*, one-half fluid ounce, every three hours.

URÆMIA.

PROGNOSIS.—*Unfavorable*: Setting in with great violence; convulsions and coma; if the kidney degeneration is far advanced. *Favorable*: Those cases in which the impediment to the excretion of the urine can be speedily removed.

Cantharis.—Uremia secondary to congestion or inflammation of the kidneys. Give frequent doses *Tereb.* if *Canth.* fail.

Digitalis.—If heart's action weak.

Apocynum.—Uremia following dropsy. Administer remedies subcutaneously if patient unconscious.

GENERAL MEASURES.

Resort to every possible means to restore the action of the kidneys. Hot compresses, or hot poultices over loins; hot pack, to promote diaphoresis. If there be any urine in bladder, use the catheter. If it occur in puerperal state, terminate labor as soon as possible. For *convulsions*, *Morphine*, one-eighth or one-quarter grain hypodermically, or *Potassii brom.* per rectum. Free purgation may be procured by *Oleum tiglii*, one drop on the finger, touched to the back of the tongue.

Diet.—After the attack give nourishing diet, especially a free *milk diet*.

DISEASES OF THE BLADDÉR.

CYSTITIS — ACUTE.

LEADING REMEDIES.

Aconite.—Only when there is much erethism or fever. Dry, hot skin; thirst and restlessness; frequent and violent urging to urinate, with burning in bladder; painfulness in region of bladder.

Cantharis.—Violent pains and *burning heat* in bladder; very frequent micturition, with *tenesmus vesicæ*; burning and cutting pains, so severe patient screams aloud; constant desire to urinate, with scanty emission of dark or bloody urine.

Belladonna.—Region of bladder *very sensitive*; urine hot and red; involuntary dribbling of urine; great nervous irritability.

Camphor.—The best remedy for strangury, especially useful if the attack was brought on by toxic doses of *Cantharides*.

Cannabis.—Especially gonorrhœal cystitis. Its symptoms are similar to those of *Cunth.*, but less intense. It may be given in acute cystitis if improvement does not follow the use of the former in twenty-four hours.

CYSTITIS—CHRONIC.

Chimaphilla.—Dysuria, with mucous sediment in urine.

The best remedy in the chronic form.—*Ruddock.*

I have often used it with advantage. From one to five drops of the mother-tincture seems to be the most suitable dose.—*Hughes.*

Mercurius.—Fever, with chilly creepings and great sensitiveness in region of bladder; urine turbid, fetid, containing pus. Also in gonorrhœal cystitis.

Sulphur.—Obstinate chronic cases; urine very fetid.

CONSULT—*Dulc., Senecin, Apis, Puls.*

GENERAL MEASURES.

Acute.—Hot hip-bath, or hot fomentations, with *absolute rest* in horizontal position. **CHRONIC.**—Great benefit often follows washing out the bladder. Use a small quantity of water at blood heat, lightly colored with *Hydras.* tinct. Force it *gently* and *slowly*. The *best* method is to use a fountain syringe, with a *flexible soft rubber* catheter. This can be used for either male or female patients. Inject into the urethra a *4 per cent.* solution of *Cocaine*, and the passage of the catheter will then be painless. This will also relieve irritation and strangury.

Diet.—Prescribe a diet which shall keep the urine as free from solids as possible. In acute cases eat but little meat, and avoid the use of all *stimulants*, wine, spirits, beer, tea, coffee, spices. *Drink large quantities of pure soft water*, such as Poland or Waukesha water. Filtered rain water is best.

ENURESIS.

LEADING REMEDIES.

Sulphur.—Nocturnal enuresis, copious discharge.

Should begin the treatment of every case.—*Jahr.*

Belladonna.—Paresis of *sphincter vesicæ*; may be necessary to give several drops of mother-tincture at a dose, *for children.*

Causticum.—Involuntary passage of urine at night when sleeping; passage of urine when coughing or sneezing.

Equisetum.—Has proved curative in many cases of nocturnal enuresis.

Cina.—When traceable to worms.

GENERAL MEASURES.

Child should sleep on a hard mattress, with light covering. Avoid hot drinks and highly seasoned food late in the day.

HÆMATURIA.

LEADING REMEDIES.

Terebinthina.—The blood intimately mixed with the urine, which has a dirty, brown-red, or even blackish color; burning and drawing pains in kidneys; spasmodic urging and pressing in region of bladder.

Occupies the first place.—*Hughes*.

Cantharis.—Violent, cutting, pressing, and crampy pains in the bladder, extending into the urethra and kidneys; strangury and burning; blood discharged drop by drop.

One of the chief remedies.—*Hartmann*.

Millefolium.—Pain in renal region, chilliness; the blood forms a sediment in bottom of vessel like a bloody cake; pressive pain in urethra during flow of blood.

Has been used successfully.—*Hering*.

Hamamelis.—Hæmorrhage from passive congestion of kidneys, with dull pain in renal region.

Belladonna.—Renal hyperæmia from cold.

Nitric ac.—Active hæmorrhage after *Mercury*; *tenesmus vesicæ* after micturition; dissolution of blood corpuscles.

Arsenic.—Urine scanty, very dark, mixed with pus and blood, and rapid decomposition of it in the vessel; widespread burning pains in urinary organs.

Efficient in both acute and chronic.—*Bæhr*.

Camphor.—*Hæmaturia* after excessive use of *cantharides*.

GENERAL MEASURES.

Absolute rest; promote action of the skin by vapor baths; let the patient drink large quantities of soft water; copious injections of warm water often afford great relief. When the bladder is filled with thick clots of blood, which cannot be passed or drawn through a catheter, force into the bladder two ounces of warm water containing in solution five drops of *Muriatic ac.* and sixteen grains of *Pepsin*; in a few hours the contents of the bladder will readily pass through the catheter.

DISEASES OF THE NERVOUS SYSTEM.

HYPERÆMIA OF THE BRAIN.

LEADING REMEDIES.

Belladonna.—Face red and congested; injection of conjunctivæ; photophobia; extreme sensitiveness to the slightest noise; sudden starts and jerks; general hyperæsthesia. Tendency to delirium.

Veratum vir.—Cerebral hyperæmia accompanying febrile conditions; headache; violent throbbing of the carotids; sensitiveness to sound and light; flushed face; tingling and prickling in the lower limbs; full, hard, bounding pulse.

One of the most powerful remedies for cerebral hyperæmia.—*Baehr.*

Aconite.—The result of cold or violent emotion, with hot, dry skin, and great excitement of the circulation.

Gelsemium.—Passive hyperæmia, and hyperæmia occurring during dentition.

Glonoine.—Sudden and intense congestion, with *violent* headache; absence of fever.

Arnica.—When from injury.

CEREBRAL MENINGITIS.

PROGNOSIS.—Grave. *Unfavorable*: Tonic spasms; difficult deglutition; incontinence of feces and urine; stertorous respiration; stupor and coma.

LEADING REMEDIES.

Aconite.—In the *initial stage*; fever; dry, hot skin; great arterial tension; face red and bloated; burning in brain, with sensation as if it were moved by boiling water; great restlessness and anxiety.

As soon as pulse becomes slower, and symptoms of exudation set in, *Acon.* no longer indicated.—*Baehr.*

Belladonna.—Face red and bloated, with red, sparkling eyes; boring of head into the pillow; great sensitiveness to light and noise, with general hyperæsthesia; violent throbbing of the carotids; loss of consciousness; violent delirium; convulsive movements of the limbs; vomiting; involuntary stools and urine.

A disposition to perspire constitutes a valuable indication in favor of *Bell.* as compared to *Acon.*—*Baehr.*

Bryonia.—After effusion has set in; *mild* delirium; severe, shooting, and tearing pains in the head, with sharp screams; livid face; chewing motion of the jaws; stupor.

When the stage of excitement is merging into that of depression and stupor.—*Hughes*.

Helleborus.—Eyes rolled up; lids half closed; face pale; breathing slow and deep; sighing; soporous sleep, with screaming and startings; automatic motions of one arm and one leg; jerking, and convulsive movements. Follows *Bell*.

The proper period for its application has arrived if reaction has almost entirely ceased and the symptoms of paralysis are more or less completely developed.—*Baehr*.

Apis mel.—Convulsions; sopor, interrupted by piercing shrieks; bending back and rolling of the head; grating of teeth. Follows well after *Bry*.

Sulphur.—“Appropriate as a means of assisting the delaying resorption of the exuded fluid; hence, in the stage of paralysis, after it has continued for a time without any perceptible change.”—*Baehr*.

Arnica.—Especially when of traumatic origin; also to promote resorption of serous effusion after inflammation.

Absence of all signs of reaction contra-indicates this agent decidedly.—*Baehr*.

Zincum.—Patient unconscious; eyes half closed; dilated, insensible pupils; extremities, or whole body, cold; blueness of hands and feet; impeded respiration; small, weak pulse. Inflammation has ceased, and effusion, with cerebral torpor, remains.

Even in advanced paralysis, with general coldness, it has been known to excite salutary reaction.—*Hughes*.

SPECIAL REMEDIES.

Opium.—Deep coma.

Rhus.—With erysipelas and low fever.

Mercurius, Kali hyd.—Syphilitic cachexia.

Hyoscyamus.—Severe cerebral pains; delirium; aberration of sight.

GENERAL MEASURES.

Keep the sick-room *darkened*, well *ventilated*, and *very quiet*. Raise the head on a thin pillow. In severe attacks, cut the hair. Apply cold to the head. To be of service, cold applications must be *continuous*—not warm at intervals. Use a bladder, or small rubber bag, *half full* of pounded ice; or, cover the head with a soft cloth, and conduct to it a *constant* small stream from a vessel of cold water, by a siphon of small rubber tube or cotton wicking. *Great caution necessary*. Apply only in the stage of excitement; *never after the stage of depression has set in*. Throughout the attack, keep the extremities *warm*. During convalescence the patient must be kept free from all excitement or disturbance; do not talk to children.

Diet.—During fever, give liberally of cold water to slake the thirst. Barley water, milk and water, and broths should be given as soon as depression sets in. In convalescence return to solid diet cautiously.

APOPLEXY.

LEADING REMEDIES.

Aconite.—Full, strong pulse; plethoric subjects; great arterial excitement.

You will be astonished at the rapidity with which the beneficial results will manifest themselves under this potent drug.—*Hughes.*

Belladonna.—Great cerebral congestion; red, swollen face; throbbing of cerebral vessels; dilatation of pupils; conjunctiva red and injected; convulsive movements of face or limbs; involuntary discharge of urine. To be of service, must be given early, when the effusion is still attended by violent symptoms of congestion.

Sometimes has a magic effect.—*Baehr.*

Opium.—Profound stupor; bloated, dusky-red face; stertor and irregular breathing; stupid, besotted countenance; convulsive motion of extremities; patient moans and groans; is hard to arouse; face covered with profuse, cold sweat.

This drug is of great value.—*Hartmann.*

Arnica.—No arterial excitement or cerebral congestion; sudden attack, with stupefaction, sighing, and muttering; involuntary discharges. Also, to promote resorption of effusion, to be given after the attack, with *Bell.*, if signs of cerebritis.

As a remedy to promote resorption, *Arn.* occupies first rank.—*Baehr.*

SPECIAL REMEDIES.

Nux v.—Congestive condition of brain favoring apoplexy. For those of sedentary habit, who have indulged in rich diet and alcoholic stimulants.

Sulphur.—To promote resorption, “comes in where the action of *Arn.* terminates.”

Phosphorus.—Retards degeneration of arteries.

Faradization.—To restore paralyzed muscles.

FOR PREDISPOSITION.—*Nux v.*, *Phos.*, *Baryt.*, *Lach.*, *Gels.*, *Hyos.*

FOR AFTER-EFFECTS.—*Caust.*, *Zinc.*, *Cupr.*, *Plumb.*, *Cocc.*

GENERAL MEASURES.

Loosen all tight clothing, especially about the neck; remove the patient to a quiet, cool place; let him lie with the head and body raised, and give plenty of fresh air. Rub the extremities with heated flannels, and apply hot bottles.

Apply warm cloths to the head; cold applications do harm, especially if the face is pale and the surface cool. Venesection worse than useless.

Diet.—Of great importance. *Avoid* over eating, rich food, and stimulants of all kinds. At no time should a full animal diet be indulged in.

Avoid all excitement, fits of passion, over exertion, sudden changes of temperature, exposure to hot sun, overheated rooms, hot baths, wet feet, and excesses of whatever kind.

ALCOHOLISM — ACUTE.

SYNONYM: *Delirium Tremens.*

LEADING REMEDIES.

Hyoscyamus 1x.—Delirium mixed—loquacious, furious, muttering, and incoherent; pulse small and quick; very compressible; skin cold and clammy.

Hyos. most commonly useful; rare that the delirium is inflammatory enough for *Bell.* or sufficiently maniacal for *Stram.*—*Hughes.*

Opium.—Comatose condition; loud, stertorous breathing; loss of consciousness and sensation.

Antimonium tart.—Much *mucous* gastric disturbance with the attack, and profuse cold sweat.

Arsenicum.—Great irritability of the stomach; great prostration and muscular tremors.

Ammonia.—To “sober up” one who is “pretty tight,” give a dose consisting of one drachm *Spts. Ammon.*, diluted in a little water.

GENERAL MEASURES.

A cup of strong coffee is often of *great benefit.* It is highly important that the *strength* be maintained by a *nutritious* diet, as the danger is from *exhaustion.* Give soups, beef tea, warm milk, coffee, egg beaten up in coffee or milk. A plentiful sprinkling of red pepper may be used in seasoning the food.

Use *as little violence as possible;* employ only gentle compulsion, trying to soothe and quiet the patient by kind words, keeping him as quiet as possible, and, if you can manage it, in a darkened room. Have the windows securely fastened, and help at hand to summon in case of necessity.

ALCOHOLISM — CHRONIC.

LEADING REMEDIES.

Nux v.—Often indicated. A few drops of the 1x in frequently repeated doses for the bad effects following a “spree.” Very good for morning vomiting, trembling hands, and other nervo-muscular affections of drunkards.

Zinc phosphate.—In chronic alcoholism, for *nutrition of nervous centers*.

Capsicum.—Ten drops of the tincture in a little water for atonic dyspepsia of drunkards.

Arsenic.—For the morning vomiting, gastritis, prostration, *muscular tremors*.

Moschus.—The best remedy to allay the craving.

GENERAL MEASURES.

To correct the habit, the use of alcoholic stimulants *must first be entirely given up*. As substitute, *Tr. Cinchona rubra* may be given, a teaspoonful dose, two or three times daily; or,

R. Lupulinae, fl. ext.

Tr. Capsici, equal parts.

Dose.—1 or 2 tsp. p. r. n.

This, also, is an excellent substitute for the alcoholic stimulant.

Diet.—A most important part of the treatment. Have the patient eat freely of *fruits and vegetables*, and drink milk, lemonade, fruit-flavored syrups, and water.

OPIUM HABIT.

Diminish the dose by insensible degrees, without the knowledge of the patient. Get control of the patient and deal out to him his daily allowance. If the patient has a hypodermic syringe, its use and custody must be given up to some one else. If the daily quantity is not more than four grains, the use of the syringe must be given up *at once*, and a proportionate quantity—*i.e., three times as much*—given by the stomach. When the *per diem* quantity is from one scruple to one drachm, considerable reduction must be made before the syringe can be abandoned, but it must be dropped at the earliest possible moment. The rate of reduction should not be greater than 1-16 grain hypodermically, or 1-5 grain by the stomach, each three to eight days. The necessary time must be given, even though it take a year.

Never stop the opiate suddenly.—*Bartholow*.

Mix the dose of *Morph.* with a quantity of the 1x or 2x trituration of *Nux v.*, or *Quin. sulph.*, gradually lessening the proportion of the former and increasing that of the latter, until the one comes to be substituted for the other. If *Laudanum* be taken, pursue the same plan, substituting *Tr. Coca Erythoxylon*.

Diet.—Success is promoted by correcting the abnormal condition of the digestive functions by appropriate remedies. Important to keep the patient well nourished. If digestion is good, and food can be taken and assimilated, the difficulties of treatment are reduced one half. Give

milk, eggs, animal broths, steaks, chops, and other substantial food. It is important to have occupation for mind and body.

Absolute control of the patient is necessary by any method, and easier to obtain by the one here given than by any other.

HEADACHE — CONGESTIVE.

LEADING REMEDIES.

Aconite.— Fullness and heavy feeling, as if everything would push out of forehead; burning headache, as if brain agitated by boiling water; vertigo, with nausea and vanishing of sight; *arterial tension and excited circulation throughout the body.*

Belladonna.— Intense headache, aggravated by noise, motion, moving the eyes, contact, and even coughing; great congestion of the head, with throbbing of carotids; jerking headache, extremely violent on walking — pain increased at every step; stabbing as if with a knife, from temple to temple; burning of eyes, and pain as if eyeballs would start from their sockets.

Veratrum vir.— Intense cerebral congestion, feeling as if head would burst open, accompanied by nausea and vomiting. Headache proceeding from nape of neck. Heart beats loud and strong, with great arterial excitement.

Glonoine.— *Active cerebral congestion;* violent throbbing, pulsating headache, with fullness and pressure in head; pain so severe as to drive to frenzy; patient grasps his head, and rolls and cries with agony; headache from exposure to heat of sun.

China.— Deafness; noises in ears.

Cactus.— *Heavy pressing* on vertex.

Opium.— Passive congestion — sleepiness.

Gelsemium.— Passive congestion — giddiness.

Bryonia.— Frontal; dyspepsia — constipation.

Nux v.— Occipital, with dyspepsia and constipation.

HEADACHE — NERVOUS.

(HEMICRANIA.)

LEADING REMEDIES.

Belladonna.— Red face; great sensitiveness to noise and light; right-sided, aggravated by slight jar.

The best medicine if of recent origin.—*Hughes.*

Sepia.— Chronic cases; skin yellowish under the eyes; women with disordered sexual function; leucorrhœa; irregular menstruation, scanty, preceded by pain; headache generally occurs about time of menses.

Sep. has largest and most unanimous testimony in its favor as a radical remedy for this disease.—*Hughes.*

Ignatia.—Headache as if a nail were driven in side of head; periodical; pain usually semilateral; persons of highly nervous temperament, or in those whose nervous system has given way to anxiety, grief, or mental work.

Nux v.—Sedentary habits; habitual constipation; sensation as if skull would split; worse in open air, during motion and stooping; irritability of senses.

A leading remedy in hemicrania.—*Baehr.*

Coffea.—Great nervousness, exaltation of senses, and insomnia; one-sided headache, as from a nail driven into parietal bone; useless in case of coffee drinkers.

Arsenicum.—Neuralgic and periodical headache; migraine and headache from abuse of *Quinine* and from miasmatic influences; great weight in head, particularly in forehead.

Gelsemium.—Appears suddenly, with dimness of sight, or double vision; vertigo; great heaviness of head; bright-red face; dull, heavy expression of countenance; full pulse; general malaise.

Neuralgic headache after cerebro-spinal meningitis.—*King.*

Amyl nit.—Pallor of face; headache, which increases in severity, and then abates, again and again.

GENERAL MEASURES.

All victims of hemicrania must give up the use of coffee.

NEURALGIA.

LEADING REMEDIES.

Aconite.—Acute idiopathic, from cold; face red and hot; pains very severe, lancinating, pulsating,—almost intolerable at night, with great restlessness. *Must be acute congestion or active inflammation.*

Invaluable in recent cases.—*Hughes.*

Belladonna.—Violent, cutting pain; red, shining swelling; congestion of face; eyes injected; lachrymation; great nervousness and restlessness; palpitation of heart; motion and contact exceedingly painful; pains appear in evening; most violent toward midnight.

Colocynthis.—Tearing, tensive pain, greatly aggravated by every motion of the facial muscles; better from warmth; attended by inflammatory heat and swelling; acute neuralgia, from cold.

Spigelia.—Neuralgia of trigeminus; pain jerking, tearing, sometimes periodical, always attended by feeling of anxiety at heart, and great restlessness; aggravated by slightest contact, by motion, or stooping; face pale. Of no use in chronic cases.

Deserves the first place.—*Baehr.*

Arsenicum.—Idiopathic neuralgia. Burning, agonizing pain, accompanied by great restlessness and anguish. Intermittent, with tendency to periodical return. Worse from cold; easier during exercise. As a consequence of malaria, or in those of debilitated condition. DOSE.—Acts best in high attenuations.

Quiets nervous pain better than any other medicine.—*Baehr.*

Iris v.—Neuralgia of head, temples, and eyes, beginning in the morning, and lasting for hours, causing burning distress in epigastrium, and vomiting. The entire scalp and face are involved, with sharp, shooting, cutting pains.

Rhus.—After getting wet.

Cedron.—Marked periodicity.

Gelsemium.—Malarial origin.

Hepar sulph.—After abuse of *Merc.*

Veratrum alb.—Icy coldness of part.

Bryonia.—Intercostal; worse on motion.

Kali bi.—Supra-orbital, with gastric disorder.

China.—Pain, aggravated by the *slightest touch.*

Pulsatilla.—In lymphatic subjects; *jerking* pain.

Kalmia.—Neuralgia affecting one-half of the face.

Phosphorus.—Tic-doloureux from nervous debility.

Chelidonium.—Right supra-orbital, with liver disorder.

GENERAL MEASURES.

Hot applications sometimes relieve. Paint the course of the nerve with the mother-tincture of *Acon.* or *Bett.* Chloroform liniment locally. Dip a needle in oil of peppermint, or oil of cloves, draw it along the course of the affected nerve; this sometimes has a magic effect. The local application of a *Menthol* pencil relieves many cases very promptly. Protect the part from exposure to cold or damp; wear warm clothing; *rest* important for those who are overworked; galvanism often cures.

Diet.—In chronic cases, and debilitated subjects, an abundance of nutritious food. Cod-liver oil, and other animal fats, very important; butter, cream, etc., should enter largely into the diet.

SCIATICA.

LEADING REMEDIES.

Chamomilla.—Pains intolerable; drawing and tearing in character, with paralytic sensation.

Will often cure in young persons of nervous temperament.—*Hughes.*

Rhus.—Brought on by exposure to wet, straining, and lifting. Pains worse when lying quietly; relieved by motion. Numbness, formication, and stiffness.

In chronic cases rarely fails.—*Ruddock.*

Colocynthis.—Shooting, tearing pains; worse from motion and pressure. Pain sets in suddenly; is constant, becoming at times intolerable; felt most in daytime.

Has always enjoyed high repute.—*Hughes*.

Arsenicum.—Burning pains, attended by anguish and restlessness; worse at night. Chronic cases.

Actæa.—Hysterical subjects; ovarian or uterine complications.

Lycopodium.—Coxalgia, with violent jerks of the limbs, stiffness, weakness, and formication. Obstinate, chronic cases.

GENERAL MEASURES.

Apply *heat*; cover the part with flannel, and run over it with a hot sad-iron. The battery should be tried in obstinate cases. Acupuncture often relieves. Apply *Menthol* locally.

TETANUS.

PROGNOSIS.—If the access has been slow, the spasms mild, the paroxysms short, recurring at long intervals, and patient can sleep, and the temperature is not over 101° F., the prognosis is *favorable*; temperature over 101° F., *unfavorable*; 103° F., or over, *dangerous*.

LEADING REMEDIES.

Strychnia.—*Intermittent fits of spasm*, with bending body *backward*, and disturbed respiration; extreme stiffness of limbs; hardness of muscles; full consciousness during the spasm; *the spasm excited by the slightest touch*.
DOSE.—1x or 2x trituration.

Aconite.—Idiopathic tetanus, excited by exposure to cold or wet. Frequent alternation of redness and paleness of face; distortion of eyes; body bent backward; face covered with cold sweat; rigidity of muscles of jaws and neck.

Its spasms are more continuous than those of *Strych.*, and less dependent on reflex excitement.—*Hughes*.

Hydrocyanic ac.—Lockjaw; bloating of face and neck; protruded, glistening eyes; body bent forward or backward; irregular pulse.

Belladonna.—Constriction of throat; tightness of chest; grinding of teeth; clenching of jaws; distortion of face; mouth foaming; obstructed swallowing; renewal of spasm on attempting to drink.

Cicuta.—Trismus from injuries to head.

Rhus.—From wounds of joints or tendons.

Ignatia.—Extreme opisthotonos; from fright.

We should give tolerably large doses of the remedy employed. Repeat frequently.—*Hughes*.

GENERAL MEASURES.

Keep the room at a comfortable temperature, the patient very quiet, and allow no draft or cold air to strike him.

Diet.—Give abundant nourishment. Give four ounces of milk every two hours; one egg, with milk, morning, noon, and night; if the pulse indicates great exhaustion, give nutrient enemata in addition. If the jaws are locked, pour liquid food between the jaws and cheek.

EPILEPSY.**LEADING REMEDIES.**

Belladonna.—Recent cases. Cerebral congestion during and between the paroxysms. Young and sanguine subjects, and for *petit mal*.

Will often be found efficient.—*Baehr*.

In cases of some standing, *Calc.* needed to complete the recovery.—*Hughes*.

Cuprum.—Violent convulsions, occurring at night.

Occupies the first place among our remedies.—*Joussel*.

CONSULT—*Ign.*, *Cicuta*, *Cocc.*, *Strych.*, *Opium*, *Arg. nit.*, *Nux v.*

GENERAL MEASURES.

Inhalations of *Amyl nit.* to ward off a threatened attack. During the attack loosen clothing, and keep the patient from injuring himself. Pressure on both carotids, which makes pressure on cervical sympathetic and par vagum nerves, will often shorten an attack. In female patients, pressure on ovarian regions sometimes has a like effect. When the convulsions cease, draw the tongue forward, and turn the head to one side, that the half-paralyzed tongue may not fall on the larynx. Let the patient rest.

CHOREA.

SYNONYM: *St. Vitus' Dance*.

LEADING REMEDIES.

Ignatia, *Actea*, *Arsenicum*, *Ferrum*, *Cuprum*, *Agaricus*, *Aconite*.

Galvanism, the constant current, has cured many cases.

HYSTERIA.**LEADING REMEDIES.**

Ignatia.—Attack preceded by sensation of lump in throat, followed by sense of suffocation, spasmodic eructation, convulsive movements of arms and legs, clenching of hands; alternate flushing and pallor; yawning and sighing.

Its continued use modifies the morbid impressionability.—*Hughes*.

Moschus.—Great anxiety; palpitation of the heart; tendency to fainting; headache; feeling of constriction of chest, and general chilliness, and copious flow of colorless urine.

In low dilutions, will sometimes arrest and always shorten paroxysms.—*Hughes*.

Asafœtida.—*Sensation as of a ball rising in the throat.* Nervous palpitation; the throat symptoms predominate.

Pulsatilla.—Patients of mild, sensitive, tearful disposition; frequent derangement of menstruation; the attacks being characterized by tearfulness, or fits of crying, without assignable cause.

Aurum.—Melancholia.

Sepia.—Chlorosis; leucorrhœa.

Actæa.—Depending on menstrual suppression.

Platina.—Uterine derangements; nymphomania.

GENERAL MEASURES.

In the attack, loosen the clothing; give air; sprinkle the face with cold water; give *Moschus*.

Regimen.—Avoid tight clothing, excitement, or emotion; take open-air exercise; observe regular habits; early hours; eat plain food; avoid stimulating diet; correct uterine and sexual disorders.

CONVULSIONS.

LEADING REMEDIES.

Belladonna.—Great cerebral congestion; hot, flushed face; violent throbbing of carotids; drowsy after the spasm; starting and jerking in sleep; great vascular erethism.

Seldom happens that a second attack will occur after administering *Bell.*—*Bæhr*.

Ignatia.—*Tonic* spasms, very violent during dentition, in those of highly nervous organization, from fright or grief. Of spinal rather than cerebral origin.

Chamomilla.—Extreme sensitiveness, with great irritability; one cheek red and hot; bloated bowels; restlessness, with moaning and groaning.

Cuprum.—*Anæmic condition.* Shrill cries during attack; drowsy and stupid in intervals; bloated abdomen; involuntary, thin discharge from bowels.

CONVULSIONS FROM

PASSION.—*Cham.*

INJURY.—*Ars., Cicuta, Bell.*

WORMS.—*Cina., Merc., Cicuta.*

FRIGHT.—*Op., Hyos., Acon., Bell.*

STOMACH DISTURBANCE.—*Ipec., Nuc. v.*

INCIPIENT BRAIN AFFECTION.—*Bell., Gels., Verat. vir.*

GENERAL MEASURES.

Lose no time; have the child stripped and put in a warm bath (90° F.); apply to the head a large sponge wrung out of cold water; remain in the bath ten or fifteen minutes.

In an emergency, if no other remedy is at hand, give *Camphor*, by inhalation, or a drop in a little sweetened gum water. Lance the gums if they are *swollen and inflamed*. During the spasm administer *Amyl nit.* by inhalation.

If the child is robust and apparently healthy, the attack is probably reflex; if weakly, wasted, or cachectic, it is probably from the brain.

If the patient is an infant *reduced by exhausting diarrhœa*, let it remain in the bath but two or three minutes, and *do not* put cold water to head; give stimulants of brandy and milk, freely.

LARYNGISMUS STRIDULUS.

SYNONYMS: *Spasmodic Croup; False Croup.*

LEADING REMEDIES.

Aconite.—Attack excited by cold, dry air. Spasm of larynx: severe dyspnœa; febrile symptoms.

Eminently specific.—*Hempel.*

Of priceless value.—*Ruddock.*

Chlorine.—Spasm of glottis; a succession of crowing *inspirations*, each followed by an ineffectual effort at expiration: the chest inflated; with turgescence of face; more or less complete coma; followed by relaxation of the spasm.

DOSE.—Prepare weak solution in water, so that the odor of the *Chlor.* can just be detected. Teaspoonful at a dose. Prepare fresh frequently.

I have used it with great advantage.—*Dunham.*

Iodine.—Child rachitic, with swelling of bronchial glands.

To be preferred to all other remedies, as long as general organism has not become too much reduced.—*Bæhr.*

Belladonna.—Red face; arterial excitement; cerebral congestion.

Sambucus.—Burning, red, hot face; hot body; cold hands and feet; profuse perspiration on face and body.

Moschus.—Give by inhalation at time of attack, to cut short paroxysm.

GENERAL MEASURES.

Quickly immerse the child in a warm bath; apply a hot compress to the throat—renew frequently. Sponge the chest with *cold* water; give *Moschus*. Two or three times a day give the neck and chest a cold sponging. As the spasm ceases, if the breathing is not reëstablished, dash the chest with cold water; give inhalations of *Amm.*; employ artificial respiration, if necessary.

HYDROCEPHALUS — ACUTE.

PROGNOSIS.—About seven-eighths of all cases are fatal. *Unfavorable:* Deepening stupor; eyes dim, glazed, and turned upward; convulsions. Patient may die in coma or convulsion. *Favorable:* A copious outbreak of perspiration; diminished oppression of breathing; increased flow of urine.

LEADING REMEDIES.

Belladonna.—Heat of head; throbbing carotids; pain in head; buries head in pillow; *extreme* sensibility to light and noise; eyes red, sparkling, and protruding; violent delirium; drowsiness; stupor; with occasional *frantic screams*; convulsions; vomiting, and occasional involuntary evacuations. The medicine until effusion sets in.

The sheet anchor, after vomiting sets in.—*Hughes.*

Bryonia.—*Impending effusion.* Face dark “crimson-red”; dry lips; dry, brownish tongue; hasty, impetuous drinking and swallowing; constipation; suppression of urine; dry heat, especially of head; drowsiness; chewing motion of jaw.

Helleborus.—After exudation. Rolling the head; automatic motions of one arm and one leg; soporous sleep, with screaming and starting; lower jaw sinks down; chewing motion of mouth; squinting; pupils dilated; forehead wrinkled, and covered with cold sweat.

One of the most important remedies.—*Laurie.*

Digitalis.—Sometimes called for in second stage, after effusion. *Pulse slow, weak, and irregular*; sopor; slow, heavy breathing; sleep, with frequent startings; convulsions.

Has high repute.—*Hughes.*

Cuprum.—*Hydrocephalus following catarrhal fever, or, metastasis during exanthematic fever.* Stage of effusion. Hot head; deep sopor, with twitching and jerking of the limbs; coldness of the hands, and bluish appearance of fingers.

Sulphur.—“If others fail.”—*Hughes.*

Iodine.—“Ineipient stage.”—*Jousset.*

Calcarea carb.—“Scrofulous subjects.”—*Jahr.*

DOSE.—Our best observers unite in affirming that frequently repeated doses of low attenuations are preferable in this disease.—*Baehr.*

HYDROCEPHALUS — CHRONIC.

Calcarea carb.—Scrofulous diathesis.

Arsenicum iod.—Tubercular cachexia.

Sulphur.—“With *Calc. carb.*, accomplishes almost incredible results.”—*Jousset.*

DISEASES OF THE SKIN.

LEADING REMEDIES.

Arsenicum.—The cutaneous affections to the treatment of which *Ars.* belongs are those which involve the more superficial structures of the skin; hence, in *branny, scurfy* eruptions, and those marked by the presence of papules, or *minute vesicles*, on inflamed bases. It should be used for *dry, scaly* eruptions, accompanied by *intense burning of the surface*.

VARIETIES.—*Pityriasis; Psoriasis; Herpes zoster; Prurigo; Eczema (chronic); Lichen; Pemphigus; Urticaria; Impetigo; Ecthyma; Lupus.*

Antimonium tart.—In toxic doses this drug excites a dermatitis, first papular, then vesicular, and lastly *pustular*, and its therapeutic sphere lies in the treatment of *pustular eruptions*, the pustules being large, round, full, with red areolæ.

VARIETIES.—*Ecthyma; Impetigo erysipelatodes; Syccosis; Acne.*

Apis mel.—Indicated in skin affections not going on to destruction of tissue, but accompanied by excessive itching, especially of a *burning, stinging* character. Also, if there be œdema of the part.

VARIETIES.—*Urticaria; Lichen; Erythema nodosum; Lupus.*

Croton tig.—Adapted to the treatment of eruptions characterized by the appearance of *minute*, closely set, red papules, which gradually become vesicles and pustules, which break, become confluent, and form scabs, the process being accompanied by intense *burning* and *itching*. In relieving the *itching* of *eczema* it often has a magic effect.

VARIETIES.—*Eczema rubrum, faciei et genitale.*

Graphites.—Skin affections characterized by *rhagades, fissures*, excoriations in folds of the skin, and the exudation of a *sticky, glutinous*, transparent fluid from raw places or sores; itching eruptions, secreting a corrosive serum.

VARIETIES.—*Eczema impetiginodes; Mentagra; Impetigo; Psoriasis palmaris; Crusta lactea.*

Lycopodium.—Eczematous, suppurating eruptions on the head; eruptions which bleed easily, and form thick crusts; unhealthy skin, with indolent, suppurating inflammations, and swollen cervical glands.

VARIETIES.—*Impetigo; Porrigo capitis (dry); Intertrigo; Plica Polonica; Eczema.*

Hepar sulph.—Adapted to *scrofulous* subjects, in whom the slightest injury *suppurates*; eruptions moist, in-

clined to *ulcerate, exceedingly sensitive to the touch; bleed easily*; eruptions spreading by new pimples beyond the main excoriation; vesicular or pustular eruptions in flexures of joints, elbows, knees, and between scrotum and thighs; abscesses, whitlows, boils.

VARIETIES.—*Eczema impetiginodes; Crusta lactea; Intertrigo; Impetigo; Herpes labialis.*

Mercurius.—Eruption of innumerable, minute, transparent vesicles, on a light, rose-colored efflorescence, occupying a large portion of the skin, with pricking and itching; *itching* eruptions, with *excoriating* discharges; excessive perspiration, viscid, of strong odor, occurring chiefly at night.

VARIETIES.—*Intertrigo; Eczema; Rupia; Ecthyma; Lepra; Impetigo; Psoriasis.*

Mezereum.—Eruptions characterized by papulation, vesiculation, pustulation, and the formation of thick crusts, with intolerable itching; itching occurring in the evening when in bed, aggravated or changed to burning by touch or by scratching; sensitiveness to touch; ulcers, with red areola, sensitive and easily bleeding; painful at night; the secretions tend to form an adherent scab, under which pus collects.

VARIETIES.—*Eczema; Impetigo; Herpes zoster, Pityriasis versicolor; Pruritus; Prurigo senilis; Mentagra; Erythema.*

Rhus.—Vesicular eruptions on any part of the body; burning and redness over large cutaneous surfaces, which soon swell and become covered with vesicles, accompanied by almost intolerable itching and burning; has a tendency to invade large surfaces rather than penetrate deeply into tissues.

VARIETIES.—*Eczema; Herpes zoster et labialis; Pemphigus; Erythema nodosum; Urticaria; Prurigo.*

Sepia.—Vesiculo-pustular eruptions, with itching and cracking of the skin, chiefly affecting the joints, with a *yellow, earthy color* of the skin, and “liver spots” in various parts; women with disease of the uterus.

VARIETIES.—*Chloasma; Tinea circinata; Psoriasis; Crusta lactea.*

Sulphur.—Scrofulous subjects, and those with “unhealthy” skin—every injury suppurates; papular, vesicular, and pustular eruptions, with voluptuous itching, increased by scratching, and by the warmth of the bed. Has a wide range of application.

VARIETIES.—*Prurigo; Farus; Impetigo; Acne; Eczema; Porrigo capilis; Lichen; Scabies.*

SKIN DISEASES.

Acne.—*Ant. tart., Bell., Hep. sulph., Kali brom., Kali iod., Merc., Puls., Sulph.*

LOCAL.—Puncture each pimple with the fine point of a lancet; encourage bleeding by warm water, then apply hot water several times daily, ten minutes at a time. Press out all comedos. If indolent, apply a stimulating lotion—R. *Sulph. subl., ℥ij; Camph., ℥j; Aqua, ℥iv.* Mix. To prevent, attend to diet (avoid fats) and hygiene (wash parts well every night with castile soap and soft water, making friction with flannel).

Alopecia.—*Ars., Fluor. ac., Phos., Phos. ac., Sulph.*

LOCAL.—R. *Tr. Canth., ℥j; Ac. acet., ℥jss; Glycerine, ℥ss; Spts. Rosemary, ℥jss; Aqua Rosæ, ad ℥viiij.* Mix. Apply to scalp, and rub in well night and morning.

Barber's Itch.—(*Tinea Trycophytina*). Shave carefully and apply OINT. *Merc. precip. rubr.*

Chloasma.—*Sepia, Sulph., Lyc., Guar.*

Comedo.—*Baryta carb., Bell., Nitr. ac., Sulph.*

LOCAL.—Press out the "grub"; shampoo the face, follow by friction with flannel. Apply a lotion of *Borax* and water. Treat dyspepsia, amenorrhœa, leucorrhœa, or other attendant disorder.

Ecthyma.—*Ant. tart., Ars., Lach., Merc., Juglans.*

LOCAL.—Remove scabs and treat the local sores with *Calendula* lotion. Correct cachexia by diet, air, and baths.

Eczema.—*Croton tig., Rhus, Canth., Graph., Ars., Merc., Hep. sulph.*

LOCAL.—Early stages, soothing lotions. Itching may be allayed by lotion of *Croton* or *Rhus*. To protect the surface from air, use—R. *Oxide of Zinc, ℥ij; Calamine powder., ℥ss; Glycerine, ℥ij; Rose water, ℥viiij.* Mix. In chronic eczema, wash with mild soap, to remove scabs, then anoint with *Cosmoline*, twice daily. In eczema of the hands, with acute inflammation, soak them every night in a weak solution *Sodæ bicarb.*, in water hot as can be borne, ten or twenty minutes. Then anoint with *Ol. Olivæ, Aqua calcis, part. aeq., Bism. subnit., ℥j.* Mix. If the itching is severe, add *Mur. ac. dil., ℥j.* Apply on soft muslin and cover with oil silk. *Eczema Impetiginodes.*—Use an ointment of powdered *Graph.* and *Vaseline*.

Erythema.—*Acon., Apis, Bell., Mez., Rhus.*

Erythema Nodosum.—*Arn., Apis., Rhus.*

Herpes.—*Herpes Labialis: Rhus., Nat. mur., Merc., Hep. sulph. Herpes Circinatus: Tell. Herpes Zoster (Shingles): Ars., Rhus., Mez.*

LOCAL.—*Herpes Zoster:* Protect from irritation; anoint with *Vaseline*, dredge freely with flour, and cover with a layer of cotton wool.

Intertrigo.—*Cham., Calc. carb., Hep. sulph., Merc., Sulph.*

LOCAL.—Keep the parts *clean* and *dry*. Anoint with *Hydras.* and *Vaseline*. Dust with equal parts *Oxide of Zinc* and *Lyc. seeds.* *Borac. ac.* and *Vaseline,* very efficacious to allay itching.

Lichen.—*Sulph., Ant. crud., Apis., Ledum.*

LOCAL.—Frequent alkaline baths. Soothing applications to allay itching. Improve the general health.

Pemphigus.—*Rhus, Ars.*

Pityriasis.—*Ars., Canth., Graph., Mez.*

LOCAL.—Frequent baths, with hard rubbing. Apply—*R. Borax, ℥j; Glycerine, ℥j; Rose water,* to ℥viiij. Mix.

Prurigo.—*Ars., Mez., Rhus, Sulph.*

LOCAL.—Use daily cold bathing. Avoid *stimulants* in drink or diet. Avoid scratching. Apply cold compress of *Mez.* lotion.

Pruritus.—*Calad., Ac. nit., Collins., Lyc., Mez.*

LOCAL.—Treat the primary condition on which it depends. Relief may sometimes be obtained from the use of grain doses of *Chlo. Hyd.* *Hamam.* lotion to the part, or *Anodyne* lotions. *R. Opium,* eight grains; *Kreos.,* ten drops; *Vaseline, ℥ij.* Mix. *Camph., ℥j; Borax, ℥ij; Alcohol, ℥jss;* *Rose water,* to ℥viiij. Mix. Local applications of a 4 per cent. solution of *Cocaine* give great relief.

Psoriasis.—*Ars., Graph., Merc., Sep., Sulph.*

LOCAL.—Soften the scales by applying a wet compress, covered with oiled silk; when sufficiently macerated, remove patches and apply—*R. Red precipitate,* finely powdered, *White precipitate, aa* five grains; *Vaseline, ℥j.* Mix.

Tinea Versicolor.—First wash well with soap, then apply *Hyposulphite of Soda, ℥vj; Rose water, ℥vj.* Mix. —*Lilienthal.*

Urticaria.—*Ant. crud., Apis, Ars., Dulc., Rhus, Urt. urens.*

Of late I have found *Chloral,* in grain doses, sufficient.—*Hughes.*

LOCAL.—Warm bath often rapidly curative. To allay itching—*Grindelia* lotion. Or, warm water acidulated with *Acetic ac.*

DISEASES OF THE EYE.

HORDEOLUM.

REMEDIES.

Pulsatilla, Mercurius, Hepar sulph., Staphysagria, Sulphur.

LOCAL.—Hot compresses. Open the abscess when it points. Local application of *Iodine*, early, will sometimes abort.

BLEPHARITIS MARGINALIS.

REMEDIES.

Mercurius, Arsenicum, Graphites, Calcarea carb., Hepar sulph., Pulsatilla, Silica, Sulphur.

LOCAL.—Remove the exciting cause. Soak the crusts with solution *Soda bicarb.*, ten grains to $\bar{\text{z}}\text{j}$ water. Rest the eyes. Avoid irritating atmosphere. Observe *strict cleanliness*. UNGUENTS: R. White precipitate (*Hydrar. Amm. (Chlo.)*) one-half grain to *Vaseline*, $\bar{\text{z}}\text{j}$. R. Red precipitate (*Hydrar. Oxid. rubr.*) two grains to *Vaseline*, $\bar{\text{z}}\text{j}$, for *severe* cases.

CATARRHAL OPHTHALMIA.

(CONJUNCTIVITIS SIMPLEX.)

REMEDIES.

Aconite, Belladonna, Euphrasia, Pulsatilla, Sulphur, Arsenicum, Graphites.

LOCAL.—Cold compresses. *Borax* solution (eight grains to $\bar{\text{f}}\bar{\text{z}}\text{j}$ water); or, *Boracic ac.* (five grains to $\bar{\text{f}}\bar{\text{z}}\text{j}$ water), a few drops in the eye three times a day.

PURULENT CONJUNCTIVITIS.

REMEDIES.

Aconite, Argentum nil., Pulsatilla, Apis mel., Calcarea carb., Calcarea phos., Hepar sulph., Mercurius, Sulphur.

LOCAL.—Cold compresses. Keep the eye clear of secretions.

OPHTHALMIA NEONATORUM.

REMEDIES.

Argentum nil., Pulsatilla, Hepar sulph., Mercurius, Apis mel.

LOCAL.—*Cleanliness.* Constant removal of the discharge every five, ten, or fifteen minutes, day and night, until discharge lessens, then not so frequently. Brush the everted lids with *Arg. nit.* solution (one grain to f̄j). If the cornea becomes affected, *Atrop.* solution (one-eighth grain to f̄j water), a drop in the eye every three hours.

GONORRHOICAL OPHTHALMIA.

REMEDIES.

Argentum nit., Pulsatilla, Apis mel., Calcarea phos., Hepar sulph., Mercurius, Sulphur.

LOCAL.—Cold compresses; ice bags; constant removal of discharge. Apply *Arg. nit.* solution (five to ten grains to f̄j. *aqua*) once daily. Use *Chlorine* water (dil. one-half, or *Boracic ac.* (4 per cent.), in cleansing the eye. Corneal implication requires *Atrop.* or *Eser.* solution (four grains to f̄j *aqua*).

PHLYCTENULAR OPHTHALMIA.

REMEDIES.

Mercurius cor., Aurum, Calcarea carb., Sulphur, Rhus, Graphites, Arsenicum.

LOCAL.—Shade the eyes. Bandage rarely necessary. Severe pain may require solution *Atrop.* once or twice daily.

GRANULAR LIDS.

REMEDIES.

Aconite, Euphrasia, Arsenicum, Mercurius iod., Belladonna.

LOCAL.—Cold applications; ice bags. *Sulphate of Copper* or *Alum* to granulations. *Tannic ac.* (ten grains to *Glycerine* f̄j), applied by camel's-hair brush to thickened conjunctiva; or, solution *Arg. nit.* (five grains to f̄j. *aqua*). Where cornea involved and pain, *Atrop.* solution may be useful.

KERATITIS.

DIFFUSE.—*Apis, Ars., Aur., Baryta iod., Hep. sulph., Merc., Sulph.*

LOCAL.—*Atrop.* solution (two grains to f̄j *aqua*) if there is much pain.

PHLYCTENULAR.—*Ars., Graph., Calc. carb., Merc., Euphr., Hep. sulph.*

LOCAL.—Smoke-colored glasses. Cleanliness. *Yellow oxide of Merc.* (two grains to f̄j *Vaseline*), a piece the size of a millet seed between the lids once a day.

SUPPURATIVE.—*Merc. sulph.*, *Hep. sulph.*, *Calc. phos.*

LOCAL.—Hot applications applied fifteen minutes, then off half an hour, then again applied. *Atrop.* solution; sometimes *Eser.* solution.

ULCERATIVE.—*Hep. sulph.*, *Calc. phos.*, *Merc.*, *Ars.*, *Sulph.*

LOCAL.—Bandage. *Atrop.* solution if the ulcer is central; *Eser.* when the ulcer is peripheral.

IRITIS.

SEROUS.—*Gels.*, *Bry.*, *Kali hyd.*, *Phos.*

PLASTIC.—*Merc. sol.*, *Merc. cor.*, *Hep. sulph.*, *Bell.*

SUPPURATIVE.—*Hep. sulph.*, *Merc. sol.*, *Sil.*, *Sulph.*

SYPHILITIC.—*Kali hyd.*, *Merc. cor.*, *Asafæt.*, *Aur.*, *Nitr.*
ac.

LOCAL.—Hot, dry applications. *Atropine* solution (four grains to ʒj *aqua*), one drop every three or four hours. Keep the eye and that side of the head warm.

GLAUCOMA.

REMEDIES.

Colocynthis, *Arsenicum*, *Gelsemium*, *Belladonna*, *Bryonia*, *Phosphorus*.

LOCAL.—Iridectomy. *Eser. sulphate* (two grains to ʒj *aqua*), a drop every two to three hours, to contract the pupil. Complete rest of the eyes during attacks.

DISEASES OF THE EAR.

OTALGIA.

REMEDIES.

Aconite, *Belladonna*, *Pulsatilla*, *Arsenicum*, *Mercurius*.

LOCAL.—Hot, dry applications; *Acon.* tincture in hot water instilled into the ear; *Morphine* or *Atropine* (one grain to ʒj) in hot water, and three or four drops in the ear. (All these solutions are very dangerous if there is any perforation of the drumhead.)

MIDDLE EAR—ACUTE INFLAMMATION.

REMEDIES.

Aconite, *Pulsatilla*, *Belladonna*, *Mercurius*, *Hepar sulph.*

LOCAL.—Warm applications; warm *Olive oil* and *Laudanum*, equal parts: hot water (110° F.) introduced by a medicine dropper, or from a small sponge. Open the Eustachian tube with an air bag; puncture the drumhead if bulging; avoid poulticing.

SUPPURATIVE INFLAMMATION.

(OTORRHOEA.)

REMEDIES.

Silica, *Sulphur*, *Calcareo carb.*, *Arsenicum*.

LOCAL.—Cleanse the ear with absorbent cotton on a wooden toothpick, and apply *Boracic ac.*, pulverized. If necessary, syringe the ear with warm water and *Carbolic ac.* (ten drops to $\text{f}\bar{\text{z}}\bar{\text{i}}\bar{\text{j}}$ *aqua*) or *Boracic ac.* solution (ten grains to $\text{f}\bar{\text{z}}\bar{\text{j}}$ *aqua*), and dry the ear with absorbent cotton afterward. *Mastoid complication*—Incision over mastoid process, one inch long, and about three-fourths of an inch from, and parallel to, the auricle.

CONSTITUTIONAL DISEASES.

ERYSIPELAS.

PROGNOSIS.—Generally favorable. *Unfavorable* in the aged; in drunkards; if gangrenous; if thrombosis occur; extension to the larynx; high degree of blood poisoning; phlegmonous variety; metastasis to the brain.

LEADING REMEDIES.

Belladonna.—Smooth, *bright, shining* red skin; congestion of head, with throbbing carotids; intense fever; tendency to attack brain; delirium.

The remedy so long as color is *bright-red*, and fever high.—*Hughes*.

Apis.—Burning, stinging pain in the affected part; skin pale; *oedematous swelling*; dryness of the throat; *oedema glottidis*.

Rhus tox.—*Vesicular* erysipelas; dark, bluish redness of the affected part, with burning and itching.

SPECIAL REMEDIES.

Graphites.—Wandering erysipelas.

Cantharis.—Vesicular. From *Arnica*.

Aconite.—Fever. *Phlegmonous* erysipelas.

Stramonium, Rhus.—Secondary meningitis.

Lachesis.—Dark purple; threatened gangrene.

Lycopodium, Hepar sulph.—Local, *without fever.*

Hepar sulph.—Phlegmonous: to promote suppuration.

Arsenicum.—Typhoid condition; disorganization of blood.

Graphites, Sulphur.—To complete cure, and remove swelling.

GENERAL MEASURES.

The best local treatment is application of cloths moistened in tepid water, containing *Verat. vir.* tincture, a drachm to two ounces of water. As soon as there is evidence of suppuration in the subcutaneous cellular tissue, make long and free incisions through the skin. After incising, apply a poultice, and provide for *thorough drainage* and escape of pus. Do not expose the skin to variations of temperature. Do not paint with collodion, unless the inflammation is of very *limited* extent. Dry flour or powdered starch dusted over will allay suffering from heat and pain. Give plenty of pure air.

Diet.—Keep up the strength by nourishing food, milk, broths, and beef essence; cool drinks to slake thirst.

ACUTE ARTICULAR RHEUMATISM.

SYNONYM: *Rheumatic Fever.*

PROGNOSIS.—Seldom fatal. *Unfavorable:* Delirium and coma; scanty excretion of solids in the urine; previously-existing heart disease.

LEADING REMEDIES.

Aconite.—Intense febrile movement; pulse full and strong; great thirst, anxiety, and restlessness. Especially for inflammation of large joints, which are red, swollen, and exceedingly sensitive to contact.

No remedy more adapted to rheumatism.—*Hempel.*

Bryonia.—Fever of adynamic form; the articular swelling pale, or dark-red, and exceedingly painful, aggravated by contact or the slightest motion. Follows well after *Acon.*

A leading remedy for acute and chronic.—*Baehr.*

Rhus.—Adynamic fever; great restlessness; parts red and swollen; pains drawing, tearing, burning; feels worse when at rest; better on continued motion. Especially lower extremities, and when brought on by getting wet.

Occupies a high place among the remedies for rheumatism.—*Hughes.*

Mercurius.—High fever; quick, hard pulse; obstinate inflammation of a single joint; puffy swelling, pale or light-red; tearing, burning pains; deep-seated, as if periosteum affected; *much* worse at night; sour perspiration, without

relief; breath foul; tongue with thick, yellow coating; appetite gone; very sensitive to cold.

Pulsatilla.—Sub-acute cases, with little fever, the pains shifting frequently from part to part; pains violent, drawing, and jerking; not much redness or swelling; chilliness.

In sub-acute rheumatism extremely useful.—*Hughes*.

SPECIAL REMEDIES.

Sulphur.—Chronic rheumatism.

Invaluable to prevent the lingering of convalescence, or the passing of the disease into a chronic form.—*Hughes*.

Caulophyllum.—Rheumatism of the wrists and finger joints, and of small joints.

Actæa.—Articular rheumatism of the lower extremities; severe attack; sudden onset.

Viola od.—Rheumatism of wrists in persons of highly nervous organization.

Belladonna.—Red, shining swelling. Frequent doses at night for insomnia.

China, Sulphur.—Acute articular; fever of remittent type.

Spigelia.—Carditis of rheumatic fever.

CHRONIC RHEUMATISM.

REMEDIES.

Bryonia, Rhus, Rhododendron, Ledum, Pulsatilla, Dulcamara, Sulphur, Mercurius, Kali hyd., Kali bi.

GENERAL MEASURES.

Rest and warmth are the cardinal principles in the treatment of rheumatism. Keep the patient *quiet*, in a *warm* bed, and covered with soft *blankets*. *Do not let a draft of air strike him*, or let him get the slightest chill. Cover the affected joints with raw cotton, keeping it on for days. Use no baths if the skin acts freely; if, however, the skin is hot and dry, give the patient a hot pack. Examine the heart at every visit. If the pain is excessive, great relief will follow the use of

R. Carbonate of potash - - - - -	ʒj;
Tr. Opium - - - - -	vj;
Warm water - - - - -	Oj. Mix.

Apply locally by a soft cloth, and cover with dry cotton.

I have seen so much relief follow its use that I should be sorry to deprive a sufferer of it.—*Hughes*.

Diet.—The use of beer, ale, wine, brandy, and all malt or spirituous liquors, must be *strictly prohibited*. Use no *sweets*. Lemonade is harmless,

DROPSY.

LEADING REMEDIES.

Arsenicum.—Great debility and prostration; anxiety; restlessness; emaciation; dyspnœa; burning thirst; œdema of face, hands, and feet, and anasarca from disease of the heart.

Suitable in all forms of dropsy, more particularly that depending on heart disease, and œdema of the lungs.—*Baehr.*

Apis.—Acute febrile dropsy; dropsy complicated with strangury, suppression, or other urinary disorder. Unabsorbed effusions after serous inflammation. Post-scarlatinal dropsy. Absence of thirst and suddenness of œdema indicate this remedy.

Apocynum can.—Restores urinary secretion. Urine scanty, thick, yellow, and turbid. Has cured anasarca, hydrothorax, and ascites, and hydrocephalus supervening on typhoid. (Of no use in hydrocephalus from tubercular meningitis, or ascites from cirrhosis of liver.)

DOSE.—One to five drops of mother-tincture, or drachm doses of infusion of *fresh root*, an ounce to a quart of water.

Has made many brilliant cures.—*Hale.*

Digitalis.—Small, feeble, irregular pulse; pale face; livid lips; distressing dyspnœa.

Especially for cardiac dropsy. Must give large doses.—*Hughes.*

Valuable in almost every variety; often succeeds in most desperate cases.—*Ruddock.*

Bryonia.—Edematous swelling of joints. Hydrothorax. Dropsy associated with chest symptoms—cough, dyspnœa, stitching pains in region of heart; disease of liver.

Helleborus.—Urine scanty, dark-colored, depositing sediment like coffee-grounds. Useful in hydrocephalus, hydrothorax, anasarca, and dropsies following scarlet and intermittent fevers.

Senecio.—Abdomen very tense; feet and legs swollen; urine scanty and high-colored, or profuse and watery. With liver symptoms, from peritonitis, or abdominal tumors.

China.—Dropsy from exhausting discharges. General debility; countenance pale or sallow; organic affections of liver or spleen.

Aconite.—Recent febrile dropsies.

Ferrum.—Anæmic or chlorotic females.

Sulphur.—Edematous swellings following skin affections or suppressed eruptions.

GENERAL DROPSY.—*Digit., Apis, Ars., Bry., Apoc., Senega.*

DROPSY OF

HEART.—*Digit., Spig., Ars.*

CHEST.—*Bry., Digit., Ars., Hell.*

JOINTS.—*Acon., Puls., Bry., Iod.*

BRAIN.—*Hell., Apis, Merc., Bry.*

ANKLES.—*Ferr., Bry., Chin., Ars.*

ABDOMEN.—*Apoc., Ars., Chin., Crof.*

SCROTUM.—*Iod., Rhod., Puls., Graph.*

DOSE.—“Dropsy requires to be treated with larger doses than almost any other disease.”—*Baehr.*

GENERAL MEASURES.

If the *abdomen* be so distended as to seriously embarrass respiration and the heart's action, evacuate with trocar and cannula, or aspirator. Introduce in mesian line, midway between the navel and pubes. Draw a sheet around the abdomen, and tighten it as fluid is *gradually* withdrawn. If the legs are much swollen, the skin *tense*, make an incision three-quarters of an inch long over each malleolus. Keep a warm sponge, moistened in weak *Carbolic ac.* solution, to each incision.

Diet.—Give all the water that patient wants—large quantities of soft water are beneficial. In renal dropsy a systematic course of skim-milk diet has proved beneficial. The patient should be well nourished, receiving a liberal quantity of nutritious, digestible food.

Hygiene.—Warm baths and vapor baths are useful in promoting perspiration. The clothing should be warm, and the abode high and dry.

DIPHTHERIA.

PROGNOSIS.—Grave. *Unfavorable*: Exudation dark, thick, extensive; extension to larynx or posterior nares; great fetor of breath; early pharyngeal paralysis; slow and *intermittent* pulse; persistent vomiting; epistaxis; great glandular swelling. The younger the child, the more unfavorable. *Favorable*: Affected surface small. So long as the exudation confines itself to the fauces and anterior pillars of the pharynx, and is not *thick* or *putrid*, the prognosis is favorable.

LEADING REMEDIES.

Kali bi.—Croupy cough, preceded by wheezing and panting; pain in chest; uneasiness in stomach; nausea; fauces covered with dirty-yellow exudation, which is tough, stringy, and tenacious; discharge from nostrils of yellow, corrosive mucus.

In *nasal* diphtheria I find it specific; in laryngeal, it does all that medicine can do.—*Hughes.*

Mercurius cyan.—*Malignant diphtheria.* The disease comes on suddenly, develops quickly, and patient is rapidly prostrated. Putrid sore throat; the exudation dark-gray, thick, and putrid, occupying the whole throat, and extending to the nasal fossæ.

Bromine.—Laryngeal diphtheria, the exudation beginning in larynx, or beginning in fauces and extending to larynx. Suffocating cough, with hoarse, whistling, croupy sound. *Iodine* in sthenic cases.

Belladonna.—Mild cases. Great dryness and redness of throat, with *high fever*.

Suitable only in the beginning.—*Raue*.

Phytolacca.—Throat dry and swollen; difficult deglutition; exudation grayish-white; great prostration; high fever; *violent aching in back and limbs*.

Acts in truly specific manner.—*Hughes*.

My experience has been very favorable, giving it in one or two drops of the tincture.—*Bayes*.

Apis mel.—Great prostration from beginning; great œdema of throat and tonsils; surface glossy, and of purplish color; burning pain and dryness of throat, extending into ears; dirty-gray exudation; high fever; œdematous swelling of face and neck.

I have seen striking results from it, and can commend it highly.—*Hughes*.

Mercurius iod.—Great swelling of parotid and submaxillary glands; tonsils much swollen; *putrid* sore throat. Cases marked by great putridity, with dirty coating on tongue, and fetid breath.

Lachesis.—Small amount of exudation; throat purple, or livid; *prostration very great*, with weak pulse; cold, clammy perspiration.

Muriatic ac.—Exudation gray; breath foul; lips dry, blackish, and cracked; tongue *dry*; the membrane begins to invade the larynx and nose, from which there is a darkish, fetid discharge; extremities cold; pulse weak and compressible; general prostration.

It has some efficacy when symptoms of blood-poisoning are present.—*Hughes*.

Kali perm.—Breath very foul; general and excessive prostration; foul exudation over fauces, with extension into *nasal fossæ*, with thin, excoriating *discharge from the nose*. Septic forms.

Cantharis.—Excessive pain on swallowing; throat looks as if blistered; expectoration of blood; extreme prostration; sinking turns; cold extremities; scanty urine, with albuminuria.

It has served me well.—*Hughes*.

GARGLES AND SPRAYS.

Alcohol.—Diluted with three parts water. Use as a gargle.

Kali perm.—Four grains to ζ vij. *aqua*. Use as a gargle when the exudation is putrid, the breath foul, or there is a thin discharge from the nose.

Liquor calc. chlor.—Use in an atomizer as a spray to the throat.

Of virtue in the most malignant cases.—*Neidhard.*

GENERAL MEASURES.

Quarantine the patient, if possible, in a light, airy, upper room. Send other children from the house. Keep the sick-room *well ventilated*. Temperature 70° F. Throw all soiled rags into the fire; disinfect all soiled linen. Do not inhale the patient's breath, *or let a piece of the membrane come in contact with a mucous or abraded surface.*

Absolute rest in the *recumbent* posture is necessary. Early in the disease let the patient take bits of ice in the mouth. Later, use the steam atomizer, and at frequent and regular intervals let the patient inhale the vapor. If the secretions are putrid, the antiseptic gargles and sprays must be used at *frequent* intervals in order to be of benefit. Keep the nasal cavities *clean*. Put *Chlorine water* into the spray cup of the atomizer. In convalescence there is danger of paralysis of the heart on over exertion. Patient should not attempt to swallow *solid* food till the muscles of the pharynx are fully restored. In adynamic cases do not use cold drinks or cold applications.

Diet.—Highly important to keep the patient *well nourished*. Begin early. Give to the patient all the *milk* that he can be induced to take—iced, boiled, warm from the cow, or in any way to suit his fancy. Occasionally give a glass of milk with a beaten egg in it. Beef tea and coffee *better* as stimulants than alcohol. Make a cup of strong coffee, add scalded milk one-half; sweeten to taste; beat the yolk and white of an egg together, pour the hot coffee and milk over them, and serve. This is very *nourishing* and *stimulating*. If the patient *cannot* swallow food, he *must* be nourished by enemata. Give plenty of water to slake thirst. Ice cream and water ices may be given freely, only taking care not to chill the stomach.

ASIATIC CHOLERA.

SYNONYMS: *Serous Cholera; Malignant Cholera.*

PROGNOSIS.—Always grave. Varies, however, according to the period of the epidemic, as it is most deadly at the commencement of an epidemic, whereas those occurring later in its course are more apt to be followed by recovery.

Complications.—Suppression of the urine; gastritis and enteritis; pulmonary congestion; meningitis; sloughing of the cornea; abscesses over the body; coagula in the right heart or pulmonary arteries; hemorrhage of the bowels.

LEADING REMEDIES.

Camphor.—*Early* in the attack. Patient suddenly loses strength, and looks pinched and blue; the skin becomes very cold; the voice deep and husky; the skin shrivels; intense distress and anguish at pit of stomach and burning in the bowels, the patient tossing in agony; sometimes nausea and vomiting, but generally the evacuations both up and down are moderate and infrequent. Dose.—“Give the patient three to five drops of the tincture, on a little sugar, every five minutes, and, in the intervals, assiduously rub him on the neck, chest, and abdomen with the same medicine, until the icy coldness of the body gives place to a return of vital warmth.”—*Hahnemann*.

It is our firm belief that *Camph.* is an almost infallible remedy if given from the very onset.—*Dr. Russell*.

Very few of the cases went into collapse when *Camph.* was given in the first stage.—*Dr. Proctor*.

Veratrum alb.—Cases marked by *excessive vomiting and purging, with violent abdominal pains*. Especially indicated when attack commences with vomiting and purging. Pale and sunken countenance; hollow eyes, with blue margins; repeated and violent vomiting, with frequent, copious, watery, rice water evacuations; violent colic, especially about the umbilicus. Dose.—“Almost all observers agree in recommending the lower preparations, even the strong tinctures, frequently repeated.”—*Baehr*.

Arsenicum.—*Sudden and extreme prostration; vanishing of the pulse; great dyspnœa; inexpressible anguish; constant tossing about; violent thirst, yet the least quantity of liquid is thrown up immediately; burning distress in the region of the stomach; complete suppression of urine.*

The medicine most trusted in collapse.—*Hughes*.

Cuprum ac.—Loss of consciousness; spasmodic cramps of fingers and toes; audible gurgling of liquids down the œsophagus; ineffectual efforts to vomit; the diarrhœa has ceased, but loud gurgling in bowels, indicating paralysis of the intestines. Symptoms indicating general paralysis of organism. Also recommended as prophylactic. Give doses of the remedies at frequent intervals.

SPECIAL REMEDIES.

Hydrocyanic ac.—Pulselessness; respiration slow, deep, gasping, taking place at long intervals.

It would seem at times to restore animation to a corpse.—*Dr. Russell*.

Secale, Phosphorus.—Profuse, watery stools, after violence of attack is past.

Phosphoric ac., Rhus.—Supervening typhoid condition.

Terebinthina., Cantharis.—For continued suppression of urine, if *Ars.* fail.

GENERAL MEASURES.

Place the patient immediately in a warm bed. Keep him at perfect rest on his back, and surround him with hot bottles. Make friction with warm flannels. The room should be warm, but well ventilated. No food can be taken. Enemata of warm milk, even though rejected, are beneficial.

Use antiseptic precautions in disposing of discharges and soiled linen, as directed in Part IV.

Diet.— During the prevalence of cholera it is not necessary that those unaffected should adopt a rigid system of dietary. Better continue taking the ordinary wholesome food to which one is accustomed, than to make any decided change. Of course, during cholera season, as at all times, unripe fruit, decaying vegetables, decomposing meats, and drinks of bad quality are to be avoided with the greatest care. It is a mistake to forbid the use of fruit simply because it is fruit. That which is *fresh, ripe, and clean* may be indulged in. But *unripe* fruit, or that which is in the least decayed, should be avoided at all times, and more especially in cholera season. As a rule, succulent vegetables, such as cabbage, squash, corn, cucumbers, and the like, as well as all rich foods, salads, and pastries, should be avoided. The rule should be, to *avoid everything which would be liable to create indigestion, or to produce looseness of the bowels.* Fruits and vegetables which come from market should be well washed with pure water before being eaten. No nourishment can be given to cholera patients at the time of the attack. After the violence of the attack has passed, *scalded milk*, diluted with water, may be sparingly administered. *But great caution must be exercised throughout the period of convalescence.* No solid food should be given until recovery is fully established, and the stools are consistent and fecal. *Any violation of the above rule may be followed by fatal relapse.* During the period referred to give only scalded milk and light broths.

Convalescence.—A return to ordinary diet must be gradual, as an attack of indigestion may excite relapse. Give *no solid food* till stools are consistent and fecal. Begin with milk, thin gruels, chicken broth, and digestible liquid food.

Precautions.—Close all surface wells, and those in the vicinity of drains and cesspools. Remove all filth, and use disinfectants freely. Corpses should be *immediately* placed in a coffin containing a mixture of lime, charcoal, and carbolic acid, and at once disposed of by burial or cremation. In cholera season direct your patients to observe regular habits in all things. All drinking-water must be boiled and filtered. Give strict attention to the first appearance of a diarrhœa.

CHOLERA INFANTUM.

PROGNOSIS.—Uncertain. *Favorable:* Cessation of vomiting; diminution in frequency and quantity of discharges; quiet, natural sleep; even temperature of the body and limbs; diminution of thirst; returning appetite. *Unfavorable:* Extreme restlessness and jactitation; or, early apathy, stupor, or convulsions; incessant and obstinate vomiting; excessive frequency and copiousness of stools; Hippocratic countenance: extremities cold, blue, and shrunken. To detect the earliest loss of flesh, examine inside the thighs.

LEADING REMEDIES.

Veratrum alb.—Vomiting and purging, the latter predominating. After vomiting or purging, *great exhaustion, cold sweat on forehead;* severe colic; stools profuse and watery.

The chief remedy.—*Jousset.*

A remedy of great value, and one very often required.—*Bell.*

Ipecac.—Vomiting, and *almost constant nausea;* stools grass-green, or white, with fermented appearance, like yeast; colic and sick stomach before and during stool.

Verat. alb. and *Ipec.* are undoubtedly the most important of all remedies.—*Raue.*

Arsenicum.—*Great prostration; extreme restlessness and unquenchable thirst;* cold extremities; face pale and cadaveric; skin dry and shriveled; stools thick, dark-green, or *dark, watery, offensive.*

The symptoms which most clearly distinguish it are the characteristic thirst and restlessness.—*Bell.*

Croton tig.—Yellow, watery stool; aggravation from food and drink; stools expelled suddenly and with great force.

Its proper application will render success certain and brilliant.—*Bell.*

Podophyllin.—Gagging and empty retching, without vomiting; moaning, with half-closed eyes and rolling head from side to side; stools profuse, *painless,* watery, with meal-like sediment.

Ranks among the first to be referred to.—*Bell.*

Mercurius.—Dark-green stools, slimy or bloody, frequent, excoriating, and scanty, with tenesmus and colicky pains; tongue coated, swollen, soft, and flabby.

Camphora.—Attack very sudden; great and rapid sinking; child in stupor; utter prostration; face pale, livid, purple, icy cold; vomiting and purging sometimes absent.

Æthusa.—Child lies in an unconscious state. *Grave symptoms*—thumbs clenched; eyes fixed and staring, pupils dilated; great prostration; continual gagging; great frequency of stools; symptoms of hydrocephaloid.

Suitable to a severe form of cholera infantum.—*Bell.*

Aconite.—Early in attack, with hot skin, quick pulse, thirst, restlessness, high fever; stools green, watery, with cutting pain and tenesms.

Only useful in very beginning.—*Bell.*

Belladonna.—Hot head; flushed face; cold feet; great dryness of mouth and lips; *great drowsiness*, with sudden starting during sleep; stools green.

Calcarea carb.—Sour vomiting; open fontanelles; old-looking, wrinkled face; profuse sweat on head during sleep; cold extremities; emaciation; bloated abdomen; stools whitish, watery.

The stools of less importance than the person and concomitant symptoms.—*Bell.*

Apis mel.—Tongue dry and shining; *no thirst*; skin hot and dry; stools greenish, yellowish, slimy mucus; abdomen tender to pressure; symptoms of hydrocephaloid; stupor, interrupted by shrill cries; head hot; eyes red; hands cold and blue; abdomen tender, sunken; urine suppressed.

One of our most precious remedies, corresponding to a low and dangerous condition.—*Bell.*

GENERAL MEASURES.

Keep the child in a *cool, shaded* place, and let it have an *abundance of fresh air*. Avoid close, ill-ventilated apartments. No matter how sick it may be, take it riding, or, if possible, boating on the water. *Cool, fresh, pure air* necessary to recovery. Give it frequent, cool sponge baths, or full baths, putting it into water at 85° F., and gradually cooling it down to 75° F.

Diet.—Of highest importance. If the child cannot nurse at the breast, its food should consist of *fresh, pure* milk, diluted with barley water and lime water. (*Vide* Part IV., *Infant Diet*.) If there be great debility and prostration, give beef tea, or wine whey. Use no starchy foods whatever. If sufficient food cannot be taken by the stomach, use inunctions of oil to the abdomen and extremities. If water be rejected from the stomach baths will supply fluid for the blood, and bits of ice slake thirst. *Absolute* cleanliness of bottle, and *absolute* purity of milk and other food, will accomplish all that can be in this direction.

DIABETES MELLITUS.

LEADING REMEDIES.

Phosphoric ac.—Frequent urging to urinate, pain in the loins, emaciation and prostration. Particularly valuable in cases of *nervous origin*. Dose.—1x diluted, several times a day.

Stands in the highest place among the remedies for diabetes.—*Hughes.*

Uranium nit.—Cases originating in dyspepsia or assimilative derangements; excessive thirst. Dose.—“The practitioners who have employed it have generally given strong and increasing doses of the first-decimal trituration.”—*Hughes*.

Arsenicum.—Insatiable hunger; unquenchable thirst; pale skin; loss of strength; dryness of mouth and throat; excessive urination; watery diarrhœa.

CONSULT—*Helen.*, *Kreos.*, *Plumb.*, *Arg. nit.*

GENERAL MEASURES.

The diabetic should be warmly clad in flannels, and avoid cold winds, and exposure of all kinds.

Diet.—Must be free from starch and sugar. Exclusive milk diet often benefits. Gluten bread must be substituted for that made of white flour.

Avoid.—*Vegetables:* Arrowroot, asparagus, bread, biscuit, beans, beets, crackers, carrots, macaroni, oat meal, pastry, potatoes, peas, rice, sago, sugar, turnips, tapioca, vermicelli.

Fruit: Apples, grapes, pears, bananas, peaches, plums, pineapples, raspberries, and other sweet fruits.

Beverages: Wine, beer, brandy, ale, cider, and all *alcoholic* and *sweet* drinks.

ALLOWABLE.—*Vegetables:* Artichokes, cabbage, celery, cresses, cucumbers, olives, greens, lettuce, pickles, spinach, mushrooms.

Fruits: Lemons, cherries (sour), currants, gooseberries, strawberries, and acid fruits generally.

Meats: Beef, mutton, poultry, game, fish, oysters, cheese, eggs, etc.

Gratify the thirst by an abundance of soft water.

LITHÆMIA.

SYNONYMS: *Lithiasis; Uric-acid Diathesis.*

CAUSES.—Over-indulgence in stimulants, or rich, nitrogenized food, with a sedentary life.

REMEDIES.

Plumbum, Nux v., Lycopodium, Sepia, Sulphur, Hepar sulph., Calcarea carb., Podophyllin, Hydrastis, Arsenicum, Nitro-mur. ac.

Regimen.—*Active out-door exercise.* Daily salt water sponge-bath. Keep warmly clad, and avoid chill.

Diet.—Highly important. Avoid meats, oysters, eggs. Adopt mixed *vegetable* diet. *Celery* said to be especially beneficial. Use *no stimulants*—wines, brandy, ale, or beer. Use no pastries, *sweets*, or anything which will cause indigestion. Avoid late dinners and late suppers. Eat slowly, and masticate thoroughly. Drink an abundance of pure, soft water. *Vichy* water has cured.

PART II.

OBSTETRICS.

ABORTION.

LEADING REMEDIES.

Sabina.—Threatened abortion in the *early months* of pregnancy. Sensation of heat and soreness in the womb, with drawing pain from the back through to the pubes. Sometimes succeeds even if pains and a red discharge have set in.

One of the best remedies we have to prevent abortion.—*Guernsey.*

Secale.—Threatened abortion in the *later months.* Even when decided hæmorrhage is present, ten-drop doses of tincture every three or four hours check it, pregnancy going on to full term. Copious flow of black, liquid blood; worse from slightest motion.

Secale and *Sab.* most in repute for correction of the habit of abortion.—*Hughes.*

Aconite.—Rapid pulse; hot skin; great excitement of the circulation.

Acon. will accomplish more than any other remedy, if there be great circulatory excitement.—*R. N. Foster.*

Actæa.—Rheumatic subjects; irritable uterus; complains much with even slight pains.

Has been successfully used to prevent habitual abortion.—*Hale.*

Caulophyllum.—*Severe* pains in back and loins; uterine contractions feeble; slight flow.

Viburnum.—Given before membranes are injured, when pains are spasmodic, often succeeds.

Arnica.—When from fall, blow, or other injury.

Ipecac.—Nausea; discharge of bright-red blood; faintness.

GENERAL MEASURES.

Morphia sulph., by hypodermic injection, when symptoms are *urgent*, will sometimes succeed when it is too late to accomplish anything by other drugs. DOSE.—One-eighth to one-quarter grain. Repeat if necessary. Deodorized

Tr. Opium, by rectal injection, keeping woman quiet on her back for days, sometimes tides over. Also, *Scapnia*, in one-half grain doses, every thirty or forty minutes, will often stop the pains, the patient going on to full term.

Predisposition to abortion may often be corrected by administering the appropriate remedy. Dose, twice daily, from cessation of menses until after the period at which the accident has before occurred. *Apis, Caul., Act., Helon., Sep.,* and *Sulph.*, will be found particularly useful.

In subjects of *habitual* abortion, build up the general health and strength by generous diet, systematic exercise, an abundance of fresh air, and regular bathing. All tendency to cough, indigestion, diarrhœa, constipation, rheumatism, irritable bladder, ovarian disease, or other malady, should be corrected by appropriate medication.

Should miscarriage *threaten*, direct the patient to lie down *at once*, on a bed having a *hard* mattress, with *light* covering over her. In this position she must remain at *perfect rest*, avoiding all motion, and mental excitement. This is very important, and must be insisted upon. Keep the apartment *cool* and *quiet*. Whatever food is taken must be *plain* and *unstimulating*, such as tapioca, rice, toast, or milk; beverages should be *cold*.

MISCARRIAGE.

If the womb lose the fruit of conception prior to the seventh month, it is called *miscarriage*; after that period, *premature labor*. The latter is to be treated as labor at full term. If the sac ruptures in early months, the *liquor amnii* escapes, and, of course, repair cannot take place, so that there will be constant leakage, and abortion is hard to prevent; but the threatened catastrophe *may* be averted by long-continued *rest*. If the rupture is near the cervix, however, abortion is *inevitable*.

SIGNS.—Increasing frequency and severity of pains; continued flow; and, especially, protrusion of *ocum*.

TREATMENT.—*Tampon* immediately. *Never tampon the vagina after the seventh month*. An exception may be made to this, however, if the physician can stay by the patient and *keep his hand over the uterus*.

The *best* tampon is a large sponge; moisten it, wring it dry, compress it, and crowd it into the vagina through a speculum. Do not leave a sponge in the vagina longer than three or four hours. At the end of that time take it out, and renew if necessary.

In the absence of the above, a *tampon* may consist of pledgets, or small balls, of raw cotton, each one tied with a string, one end of which should protrude, to facilitate removal; or, a soft silk or cambric handkerchief may be

DURATION OF PREGNANCY.

DIRECTIONS.—Find in the upper horizontal line the date on which the last menstruation ceased; the figure beneath gives the date of expected confinement (280 days).

Jan.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Nov.		
Oct.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7			
Feb.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28					Dec.	
Nov.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5						
Mar.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Jan.		
Dec.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5			
Apr.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			Feb.	
Jan.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4				
May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mar.		
Feb.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4		5	6
June	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			Apr.	
Mar.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6				
July	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	May.		
Apr.	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7			
Aug.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Jun.		
May	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7			
Sep.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			Jul.	
June	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7				
Oct.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Aug.		
July	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7			
Nov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			Sep.	
Aug.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6				
Dec.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Oct.		
Sep.	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7			

employed, inserting first one corner, and gradually stuffing in the entire kerchief. *All tampons* should be well oiled before insertion, using carbolized oil.

Do not leave any *tampon* in longer than twelve hours. When it is removed, the entire contents of the womb will probably be expelled. If not, repeat, first washing out the vagina with carbolized water, or, what is equally as good, water with a little whiskey or alcohol in it. *Examine carefully* all clots which come away, to see if they contain the *entire ovum*.

Profuse hemorrhage is to be treated by the *tampon*, cold, and the appropriate drug, or injections of hot water (110° F.).

If a portion of the *ovum* or placenta remain in the uterus, take measures to bring it away *without delay*, using a *wire curette* in preference to a blunt hook. Depress the uterus, with one hand placed above the pubes, and attempt its withdrawal with the finger of the other, using gentle yet persistent effort. Failing in this, use the placental forceps, or wire curette. If the mass be allowed to remain, there is danger of secondary hemorrhage, or of septicæmia. *After-treatment*, as after labor.

TO DETERMINE SEX IN UTERO.

The only method possessing any element of reliability is by the rate of the fetal heart beat, according to the following table:

- From 110 to 125, almost certainly male;
- From 125 to 130, probably male;
- From 130 to 134, doubtful — chances male;
- From 134 to 138, doubtful — chances female;
- From 138 to 143, probably female;
- From 143 to 170, almost certainly female.

PARTURITION.

TAKE TO CASE OF LABOR.— Forceps, soft-rubber catheter, *Ergot*, *Chloroform*, *Ammonia*. For *perineorrhaphy*— curved needles, silver wire or silk sutures, blunt-pointed scissors. For *craniotomy*— perforator, craniotomy-forceps, decapitating hook.

EXAMINATION.— *Observe*— condition of bladder and rectum, vagina, and os and cervix uteri; condition of membranes; pelvic capacity; determine presentation and position; Make out *presentation* before membranes rupture. Do not press on membranes *during* a pain.

RIGID OS UTERI.— **Aconite.**— Os hot, dry, and sensitive; patient feverish and restless.

Belladonna.—Spasmodic rigidity of the muscular fibers of the cervix.

Gelsemium.—Give five to ten drops of *Gels.* in a cup of hot water, in divided doses.

It often acts like magic in producing dilatation, and promoting labor.—*J. S. Douglas.*

LOCAL.—Apply *Bell.* cerate. Warm vaginal injections. Digital dilatation.

TOUGH MEMBRANES.—Notch the finger-nail like a saw, and rub it to and fro on the bag until it gives way; or use silver catheter, or a lead pencil.

TUMEFACATION OF ANTERIOR LIP.—In interval of pains press the tumor up above the crown of the head, and keep it there during two or three pains, until it is fully retracted.

CYSTOCELE.—Evacuate bladder by means of soft-rubber, or silver (male) catheter, or, failing in this, use aspirator to draw off contents.

HYMEN.—Make crucial incision, if spontaneous rupture does not occur.

RIGID PERINEUM.—Apply hot fomentations. Between the pains, with two fingers, make backward traction on the perineum to overcome the rigidity and cause the muscles to relax.

Chloroform.—Should not be given to complete anaesthesia. It is in the following conditions contra-indicated:—

1. Do not give it to a woman who has a tendency to flood at every confinement.

2. Do not give it when labor is complicated with severe vomiting, or with heart or lung troubles.

3. Do not give it to complete anaesthesia, except for operations, convulsions, or spasms of cervix, and then one person should devote his entire attention to it.

4. Stop its administration if the pulse becomes weak or the respirations irregular.

AFTER-PAINS.

LEADING REMEDIES.

Arnica.—Violent pains, with bruised, sore feeling, pressure on the bladder, and retention of urine; after difficult labor.

Gelsemium.—Numbness of extremities; uterine cramps extending upward and backward. Use drop doses of the tincture.

The medicine on which I am accustomed to rely.—*Hughes.*

Crocus.—For severe and long-lasting after-pains.

No drug that I know of equals it.—*R. N. Foster.*

Actæa.—Rheumatic subjects; excessive irritability, and over-sensitiveness. *Macrotin* acts very promptly.

Caulophyllin.—After protracted and exhausting labor. *Spasmodic* pains across the lower part of the abdomen, extending into the groin.

Belladonna.—Severe bearing down, as if everything would protrude; pains appear and disappear suddenly; the least jar hurts her.

Chamomilla.—Great nervous excitability; pains *very distressing*, rendering patient irritable and ill-natured.

Coffea.—Great sensitiveness, with nervous excitability; pains *driving to despair*; wakefulness.

Secale.—Pains *long and severe*.

Ignatia.—Cramp-like, with sadness and sighing.

GENERAL MEASURES.

Hot fomentations over the abdomen, or warm vaginal injections, sometimes relieve. If due to clots retained in the uterus, make pressure on the fundus, and evacuate contents of the womb.

As a rule do not attempt to check after-pains for at least six hours after delivery, as they are often merely caused by efforts of the uterus to expel clots or portions of membrane.

DYSTOCIA.

PROLAPSE OF CORD.

(*Frequency—1 in 300 or 400.*)

If there be *no pulsation* in the cord, do not interfere. Otherwise, place the patient in knee-chest position, and, if possible, reposit the cord well into the uterus with the hand, or by means of a loop of tape attached to the end of a gum catheter. Failing in this, terminate labor as quickly as possible by the forceps.

PLACENTA PRÆVIA.

(*Frequency—1 in 500.*)

If there be hemorrhage due to placenta prævia, immediately draw off the water by means of a silver catheter passed through the placenta. Keep up a firm pressure on the fundus, so that the presenting part shall impinge on the placenta. Now *tampon* the vagina and wait for dilatation. Do not neglect the bladder. When dilatation is complete, and the placenta is implanted *centrally*, oil the back of the hand, pass it between the placenta and uterine walls, and *first* deliver the placenta, and then deliver the child with the forceps. If the placenta is implanted *laterally*, work at one side, and deliver the child with forceps.

BRAXTON HICK'S METHOD.—Bring the patient to the edge of the bed and administer chloroform. Then turn by

the bi-mannal method. Introduce the whole hand into the vagina; pass one or two fingers into the cervix (do not wait for the cervix and os to become sufficiently dilated to admit the whole hand); rupture the membranes and turn. If the placenta is in your way, try to rupture the membranes at its margin, but if this is not feasible, do not lose time—perforate the placenta with your finger, get hold of a leg as soon as possible, and bring it down. The leg and breech, by this method, act as tampon to the ruptured vessels of the placenta. *Do not extract the child at once*—let it come by itself, or use only gentle and rare traction. The child will generally be born in one or two hours.

POST-PARTUM HÆMORRHAGE.

As soon as it is discovered that the woman is “flooding,” quickly but carefully pass the hand into the uterus, and *turn out all clots*, fragments of placenta, etc., clearing the uterus of all contents—grasp the *fundus* with the other hand (previously dipped in cold water, if this can be done *without delay*), and hold the uterus *firmly, pressing it down into one of the iliac fossæ* with a firm, grasping pressure. Have the nurse pour a small quantity of cold water upon the abdomen from a height of several feet. As quickly as possible follow this by passing the nozzle of a syringe into the cavity of the uterus, and inject a stream of hot water—110° to 115° F. If the delay would be too great in providing for hot-water injection, use cold water, or pass a piece of ice into the uterus.

As soon as the hæmorrhage has been sufficiently controlled, to guard against a *recurrence*, lower the shoulders and elevate the hips; tie bands about the extremities, as near to the body as possible (let them be *snug*, but not *too tight*); put on a snug binder, with a compress over the uterine; give indicated remedy—*Ipec.*, *Chin.*, *Secale*, *Sab.*, etc., according to indications on page 122.

If alarming flow *persist*, compress the abdominal aorta to left of spine, on a line with the navel, or, as *last resort*, inject into the uterus a solution of *perchloride of iron*—*two ounces to one pint* of water. This, preferably by means of a *fountain syringe*, should be slowly and gently injected through the uterus, previously seeing that it is clear of clots. *Transfusion* is often successful in restoring the woman even when exsanguine.

VERSION.

PODALIC.—Best performed before rupture of the membranes. Os must be dilated or dilatable. Evacuate the

bladder and rectum. Anæsthetize the patient. Bring the hips to the edge of the bed. Bare the arm, and anoint the arm and hand, *except* the palm. Use the hand whose palmar surface corresponds to the face of the child. Work *between* the pains. With one hand on the abdomen, introduce the other into the vagina; pass it on between the membranes and the uterine walls; carefully search for the feet; rupture the membranes; grasp one foot and bring it down, at the same time pressing the head upward with the other hand, to aid the *turning* process. After the breech has become engaged, labor may be at once terminated, or left to the efforts of nature.

COMBINED METHOD.—To be employed when the os is but slightly dilated. Introduce one or two fingers of one hand into the os, with the other hand on the abdomen. Determine the location of the head and breech, and, by combined action of the two hands, gradually “work” the head downward and the breech upward, until the head is brought to present at the os, when the membranes should be ruptured.

WHEN REQUIRED—Version is called for in placenta prævia, prolapse of cord, transverse presentation, presentation of arm, death of mother, rupture of uterus, convulsions, or any state in which speedy delivery is demanded, or where the forceps will not accomplish the delivery of the child.

FORCEPS DELIVERY.

Parts must be dilated or dilatable. Evacuate the bowels and bladder. Anæsthetize the patient, unless the child's head is at the outlet, when it may not be necessary. Immerse the blades in warm water. Have the woman lying across the bed, with her hips at the edge, the thighs separated, and held by assistants. Rupture the membranes, if still intact. Anoint the *convex* surfaces of the blades with lard or oil. Take position between the separated limbs of the patient. Take the *male blade* into the *left* hand; hold it almost upright; pass two fingers of the *right* hand a short distance within the cervix, on the woman's *right* side, between the fetal head and uterine wall, then introduce the point of blade along the inside of the fingers, and pass it, gradually lowering the handle, until the convexity of the child's head is well grasped by the fenestrated portion of the blade; depress the handle near to the perineum. Now take the *female* blade in the *right* hand, and, beginning with the blade upright, in similar manner, but by reversed movements, pass the blade in the *right* side of the vagina and cervix, bring the handle down, and lock the two. Proceed *gently*, and use *no force*.

TRACTION.—As a rule, make traction only during a pain. The *direction*, if the head is *high*, should be *first downward*; but as the head gradually descends, more and more *upward*, until just before the head escapes from the vulva, when traction is almost at right angles with the long axis of the woman's body. *Generally*, the direction in which the blades point determines the line of traction.

WHEN TO USE THE FORCEPS.

PRECAUTION.—If the forceps must be resorted to, it is better not to delay; rather use them a little early in the labor, than wait too long.

1. In the second stage, as soon as labor flags; pains severe, uterine contractions sufficiently powerful, yet the head makes no descent or advance.

2. Presentation fair, head in the vagina, soft parts swollen, the perineum rigid, and the pains, though severe and trying, cease to be actively progressive.

3. In posterior-occipital positions, where rectification of the position and normal rotation cannot be effected.

4. In cases of puerperal convulsions, dangerous hemorrhage, extreme exhaustion, rupture of the uterus when the head is within reach of the forceps, some cases of placenta prævia, after first trying the colpeurynter or tampon, uterine-motor stimulants (*Ergot*), and dilating the os.

5. In complicated labors, when the hand or arm descends with the head; prolapse of the cord—other expedients having been tried in vain.

6. In breech presentations, to extract the after-coming head as soon as the body has been delivered. In such cases delays are always dangerous to the child.

7. In moderately contracted pelvis, when the head is so compressed as to require assistance.

8. In cases of pendulous abdomen, where we have a pendulous uterus, so that the expulsive pains are misdirected.

9. In face presentations, where the difficulty lies in the lower outlet, and we fail to bring the chin forward under the symphysis pubis; even here the forceps are preferable to turning.

10. In cases of complete impaction of the foetal head, the forceps are always indicated.

11. When the mother has an organic disease of the heart; is subject to attacks of violent palpitation, followed by syncope; is in the last stage of pulmonary phthisis; has a hernia liable to strangulation, or is asphyxiated.

12. In prolonged labor for want of uterine power, and in complete inertia of the womb.

13. Any other complications or emergencies that may suddenly set in during labor, causing a delay calculated to endanger the life of mother or child.—*T. G. Comstock.*

CRANIOTOMY.

Place the patient in position as for the application of the forceps. Evacuate the bladder and rectum. Pass the fingers of the left hand up to the fetal head, and carefully pass the *perforator* along its palmar surface until it reaches the head, taking care that none of the maternal soft parts be injured. Perforate the cranium; break up and evacuate its contents. *Expulsion of child* may sometimes be effected by the forces of nature. If not, apply craniotomy forceps, and deliver much the same as in ordinary forceps case.

TWINs.

As soon as the first child is born and separated from the mother, apply a binder about the abdomen, and wait for the expulsion of the other. Do not attempt removal of the placenta of the first child until after the birth of the second. If the two placenta remain in the vagina, twist the cords together and deliver in the ordinary manner. But *be sure* to tie the placental end of the cord of the first child *as soon as* it is delivered.

ASPHYXIA OF THE NEW-BORN.

Clear the air-passages of mucus, etc., with finger wrapped with a handkerchief, the child being inverted. Provide for supply of fresh air. Make upward friction on lower limbs. Sprinkle the face and chest alternately with hot and cold water, or, slap the buttocks. If not very soon successful, resort to *artificial respiration*. Infant on its back; draw the tongue forward; carry the arms well above the head; then bring them down to the sides, with elbows flexed, and press them against the sides of the chest. Repeat about twenty-five times per minute. As soon as respiration is restored, apply heat to the body and extremities, and give five drops of brandy in half a teaspoonful of milk and water.

RETAINED PLACENTA.

If due to *uterine inertia*, grasp the fundus through the abdominal walls, and manipulate to excite contractions. If the placenta is *adherent*, pass the hand into the uterus, and gently and carefully detach. Leave no fragments. See to it that the uterus is firmly contracted afterward. Follow by antiseptic injections. If from *hour-glass contraction*, insinuate the hand, in conical shape, into the ring, and

gradually and steadily overcome the resistance of the circular uterine fibers. Inhalations of *Amyl nit.* will aid.

ADHERENT PLACENTA.

Pass the hand into the uterus, and gently and carefully detach the placenta from the uterine walls, being sure that *no fragments* remain.

An excellent method, also, is to inject cold water into the placenta through the umbilical cord.

METHOD.—Divide the umbilical vein transversely, securely tie into it the nozzle or tube of a fountain syringe, and inject cold water slowly and carefully.

This method is unfailingly successful in causing the detachment and expulsion of the adherent placenta, and does no harm to the mother.

PUERPERAL ECLAMPSIA.

(Frequency—1 in 500.)

LEADING REMEDIES.

Belladonna.—Convulsive movement of limbs and muscles of the face; dilated pupils; red or livid countenance; fixed or convulsive eyes; foam at the mouth; involuntary escape of urine and feces; renewal of the fits at every pain; more or less tossing between the spasms, or deep sleep, with grimaces, or starts and cries, with fearful visions.

If the patient is actually in a convulsion, or the fits are recurring rapidly, *Bell.* is the classical remedy.—*Hughes.*

Gelsemium.—In those cases in which the spasms occur with a *rigid os uteri.* Dose.—Five drops of tincture.

Veratrum vir.—Great arterial tension, with full, hard, bounding pulse. Dose.—Three drops of tincture.

Hyoscyamus.—Bluish color of face; twitching and jactitation of almost every muscle in the body—of face, eyelids, and all. Almost constant delirium.

A valuable remedy when due to reflex excitability.—*Hughes.*

Aconite.—Hot, dry skin; thirst; restlessness; cerebral congestion; general plethora.

Acts like a charm.—*Guernsey.*

Opium.—Sopor, with stertorous breathing; incoherent wanderings, with redness, swelling, and heat of the face.

Chamomilla.—From mental emotion, excited by a fit of anger; great excitability.

GENERAL MEASURES.

Remove all sources of irritation; empty the bladder and rectum. Place a piece of rubber, or similar substance, between the teeth. If all other means fail, give *Chloroform*

to control the paroxysms, and terminate labor as soon as possible. If the urine is albuminous, and convulsions are *uræmic*, then, too, the pressure on the ureters must be relieved by *emptying the uterus*. If convulsions *persist*, and the cervix is unyielding, *incise it*.

PUERPERAL MANIA.

CAUSES.—Great drains upon the system from too frequent pregnancies, prolonged lactation, or hæmorrhage. Loss of sleep. Also mental shock following delivery. Heredity predisposes.

DURATION.—Twelve weeks (sometimes less) to six months in most cases. The longer it persists after six months, the more doubtful is ultimate recovery.

PROGNOSIS.—Generally favorable both as to life and mind. Mortality slight under proper treatment. Melancholia more grave than Mania.

Stramonium.—*Furious rage*; loquacious delirium; throwing off the bedclothes; nymphomania; lascivious talk. In puerperal mania, it stands highest among remedies.—*Hughes*.

Belladonna.—Paroxysms of rage; insomnia; marked congestion of the brain, with eyes bright and shining.

Hyoscyamus.—Delirium of mild type; incessant, incoherent talking.

Simple mania, characterized more by agitation than excitement, due to the existence of obscure illusions and hallucinations.—*Lawson*.

Cannabis ind.—Mental delusions of an exalted character.

Cimicifuga.—“Worthy of most confidence in puerperal melancholia.”—*Hughes*.

Mercurius.—Symptoms pointing to phrenitis.

GENERAL MEASURES.

The cardinal principles in treatment are to give the woman *rest and food*. *She must have sleep, and must be kept well nourished*. In order to procure sleep give *Chloral hyd.*, thirty to forty grains. After the patient has become narcotized its effect may be maintained by rectal injections of the same medicine, the dose being increased by one-fourth.

If food and medicine be refused by the patient, they must be forcibly administered. The food must be liquid in form—milk, soups, broths, gruels. The patient must be securely held by assistants, a dessertspoon forced between the teeth and held in that position, when liquid food, a tablespoonful at a time, may be deposited in the mouth.

If this method fail resort must be had to feeding through the nares. Attach a soft-rubber catheter (No. 8) to the

tube of a fountain syringe, and, the patient being held, pass the catheter (previously lubricated with *Glycerine*) through one nostril to the fauces and beyond into the œsophagus. In this way a quart of milk, containing the medicine when desired, may be administered. Repeat two or three times a day.

Skillful nurses should have entire charge of the patient, all family friends, and especially the husband, being rigidly excluded. Change of air and scene sometimes has a marked effect as convalescence approaches.

LACERATION OF PERINEUM.

PREVENTION.—Freely lubricate the perineum, with cosmoline, oil or lard, internally and externally. With two fingers in the dilated anal orifice, and the thumb on the crown of the child's head, make pressure upward and forward, toward the pubes.

FREQUENCY.—Average of six observers, 27 per cent. of all cases; more frequent in primiparæ than in multiparæ. Examine for it after every labor.

OPERATION.

IMMEDIATE.—As soon as the placenta is delivered cleanse the vagina, and if the laceration is *slight*, tie the knees together. If considerable, cleanse thoroughly, bring the wound together by interrupted silver-wire sutures, three or four to the inch. Enter suture about an inch from the cutaneous margin of the wound, bringing it out on the mucous membrane of the vagina, very near the raw surface; carry it to the other side; bring together, and twist the ends. Often the wound will heal without operation if a pad, about the size of two fingers, made of cloth, be placed up against the perineum and kept in place, the knees tied together, and ordinary precaution used.

SECONDARY.—Patient should be in good health; child weaned; time, a few days after monthly period.

INSTRUMENT.—Scalpel; scissors, curved on the flat; long, rat-toothed forceps; blunt-edged perineum needle; surgeon's needles, curved; silver wire; needle holder; flexible catheter.

Patient etherized; lithotomy position; labiæ held apart by hands of two assistants; shave the hair from the part; two fingers in the rectum; draw the surface tense; begin in the *angle* of the fissure, next to the rectum, and freshen the surface in triangular shape by snipping with the scissors and denuding with the knife; torsion bleeding arteries; be sure that the *entire* area of the surfaces to be brought into apposition is freshened. Success depends on the care with which the sutures are applied. Pass the perineum needle

from the cutaneous surface, deeply through the tissues, and bring the point out on the vaginal surface, close to the edge of the wound; charge the eye of the needle with an end of the suture, and withdraw the needle; unthread it; pass it through the fold on the opposite side; thread it with the vaginal end of the wire; withdraw the needle, carrying the suture in its track. Beginning at the angle, pass sutures at regular intervals, two or three to the inch; coapt the parts, and secure the ends of the sutures by twisting, leaving long ends, which are to be brought together and secured in a short piece of rubber tube.

AFTER-TREATMENT.

Draw the urine; put a pad between the knees, and bind them together; pass catheter three or four times daily, and keep the vagina clean by mild *Carbolic* injections. Draw the urine with care, and hold a piece of lint to catch any drip. Protect the parts by the free use of *Calendula* ointment, prepared with *Vaseline*. Regulate the diet so as to restrain the action of the bowels for five or six days. Remove the sutures, *with great care*, on the seventh day, and let the knees remain bound together for a week following; after that, only at night. Patient should not assume upright position for two weeks.

LACERATION OF CERVIX.

PREVENTION.—“With adequate dilatation there can be no laceration. The indications are, to procure early, prompt, and thorough dilatation, by means of fingers and forceps. If expulsive efforts set in before cervix is sufficiently dilated, urge patient to restrain voluntary efforts; oppose rapid expulsion by pressure against the presenting part, and divert its movements into the proper channel.”—*R. N. Foster*.

TREATMENT.

INDICATED.—When it is the cause of sub-involution, neuralgia, or other serious ill health. Do not operate if pelvic peritonitis or cellulitis present, as indicated by tenderness in neighboring connective-tissue, on pressure with the finger.

PRELIMINARIES.—Large hot-water vaginal injections, once or twice daily, for several weeks; scarification of cervix if mucous follicles enlarged and cystic.

INSTRUMENTS.—Vaginal douche; Sims' speculum; volsella; double tenaculum; bistoury and scissors; dissecting forceps; short needles, straight and curved; needle holder; medium silver-wire sutures.

TIME.—The week following the menstrual flow.

OPERATION.

Patient anesthetized; lithotomy position; large, carbolized, hot-water vaginal injection should be administered

just before the operation; dilate the vagina with speculum; draw down the cervix with volsella or tenaculum; approximate the edges of the cleft, to see how much tissue must be removed; now open the cleft with double tenaculum, in the hands of an assistant: with long-handled, curved scissors, freshen the edges of the cleft in V shape, the broad end in the *angle* of the cleft, and the narrow one toward the external os; hook up with small tenaculum the portion to be removed and keep it on the stretch while it is being separated, and if possible, remove it in a single piece from side to side; get rid of *all cicatricial tissue*, particularly in the *angle* of the cleft, using *bistoury*, but looking out for the *circular artery*, near the vaginal junction, where tissues must be removed very superficially. If there be much bleeding during the operation, *hot-water* injections, from time to time, will check. Let the *undenuded* portions, which will form the walls of the future cervical canal, be *broad*, and of uniform size and shape.

SUTURES.—If the tissues are *soft*, use a *round* needle; if *dense, lance-pointed*; sutures *eight inches* long; introduce the *upper* one first,—three or four for each side; pass *beneath* one denuded portion, *across* the fissure, then beneath the *other*. In double laceration, pass sutures of *both* sides before tying any. Tie the sutures *from above downward*. Make accurate approximation of vaginal edges. Remove the sutures, *carefully*, on the seventh day, the *uppermost* one *first*.

AFTER-TREATMENT.

Confine the patient to bed for two weeks; empty the bladder by catheter for forty-eight hours; after that, give a water injection after every act of micturition. If much discharge, warm, earbolized injection once or twice daily.

PHLEGMASIA DOLENS.

LEADING REMEDIES.

Aconite.—Fever; high temperature; rapid pulse; restlessness; thirst.

Belladonna.—Skin moist; sharp pains in leg; cerebral congestion.

Bryonia.—Sharp, shooting pains, aggravated by least motion.

Pulsatilla.—Thirstlessness, and in the characteristic subject. If patient not doing well under other remedies.

Hamamelis.—When symptoms depend on phlebitis extending from uterine into crural veins.

GENERAL MEASURES.

Leg more elevated than thigh; straight or bent, as is more comfortable to the patient, supported on cushions.

Insist upon absolute rest in bed. Apply *heat* and *moisture*, by light poultices, or by flannel stupes, or *Hamamelis* fomentations, covered with cotton wool and oil silk. *After the acute stage is past*, bandage with roller from toes to hip while the œdema continues. Watch for collections of pus; if found, evacuate at once. Do not use friction or rubbing at any stage, lest emboli be detached. Bring up the general health by appropriate constitutional treatment. Do not use the leg until all disease has disappeared; *this is important*.

PUERPERAL FEVER.

LEADING REMEDIES.

Aconite.—If there be chill, followed by high inflammatory fever, with hot, dry skin; quick, hard pulse; mouth and tongue dry; great thirst; vomiting; urine scanty, red, and hot; cutting, burning, lancinating pains in uterus and abdomen, which is hot to touch, and excessively sensitive to slightest pressure.

I believe it to be a most valuable remedy.—*Dr. W. S. Playfair*.

Veratrum vir.—Early stage only. Nausea and violent vomiting; empty retching; much congestion of the head; full, hard pulse. By some preferred to *Acon.* for the first signs of congestion, inflammation, and fever.

Belladonna.—Intense congestion; painful retching and vomiting; abdomen excessively sore and painful; cannot bear the *slightest* jar; violent clutching pains in abdomen, with great heat; meteorism; painful bearing down in pelvis; suppressed lochia; congestion of head, with flushed face and red eyes; throbbing headache and delirium.

When the inflammation attacks the peritoneum, *Bell.* most frequently required.—*Hughes*.

An excellent remedy for the *vomiting*.—*Baehr*.

Bryonia.—If peritoneum involved, and exudation has begun. Stitching, lancinating pains in abdomen, worse from slightest motion; lochia suppressed; digestive organs much involved, though without vomiting; fever not very violent.

Colocynthis.—Severe, cutting, colicky pains in bowels; *excessive tympanites*, thin watery diarrhœa. During paroxysms of violent pain, complexion pallid, skin alternately cold and hot, pulse quick, distressing vomiting.

Quite well indicated when *tympanites* is excessive.—*Hughes*.

An important remedy.—*Baehr*.

Arsenicum.—Sudden sinking of strength; cold, clammy perspiration; insatiable thirst; constant vomiting; burning pain in abdomen; great anguish; extreme restlessness; rapid prostration; symptoms of decomposition of the blood.

Veratrum alb.—Violent vomiting and diarrhœa; suppressed lochia; icy-cold extremities; Hippocratic countenance; cold perspiration; cold breath; threatened collapse.

Deserves preference if disease sets in suddenly, with great violence.—*Baehr*.

Nux v.—When the *uterus* itself is inflamed — puerperal metritis.

I have been astonished at the rapidity of its action.—*Hughes*.

GENERAL MEASURES.

Wash out the vagina and uterus twice daily with a weak solution of *Kali perm.* or *Carbolic ac.* Introduce the nozzle of the syringe well through the cervix; wash the cavity of the uterus thoroughly until the water issuing from the vagina is no longer colored. Unsafe to trust this important treatment to the nurse. Apply over the abdomen a *thin* poultice containing an ounce of *Turpentine*. If tympanites very distressing, enema of *Turpentine* very serviceable. Use every antiseptic precaution in management of the case.

Diet.—Bits of ice in mouth to slake the thirst and allay vomiting. Important to sustain vital strength by abundant nourishment. Give hot milk, strong beef tea, meat broths, and, if prostration great, *café au lait*. If food distasteful, give albumin water. Give small quantities of food at frequent intervals.

AGALACTIA.

LEADING REMEDIES.

Asafœtida.—*Excessive sensibility* of vital organism; veins of breast much distended.

In high repute.—*Hughes*.

Belladonna.—Breasts large and heavy; headache; flushed face; cerebral congestion.

May afford great aid.—*Hempel*.

Pulsatilla.—Often called for — promotes the secretion in many cases.

China.—Debility from loss of animal fluids, particularly of blood.

Calcarea carb.—Lencophlegmatic constitution; extremities cold and damp; inclined to too frequent and too profuse menses.

Sometimes a single dose will effect the desired improvement.—*Hughes*.

Urtica urens.—Entire lack of milk after parturition.

GENERAL MEASURES.

Warm applications to the breast will favor secretion. A strong decoction of the castor-oil plant (*Ricinus Communis*) applied hot by means of soft cloths, has been often successfully used.

DIET.—The use of porter, ale, and other liquors, founded on false principles. The patient should have an abundance of *nutritious, easily digestible* food, such as *milk, cocoa, fresh meats, eggs, broths, and whatever harmless* food the appetite may crave. *Milk diet is the best.*

MASTITIS.

LEADING REMEDIES.

Bryonia.—Breasts heavy, hot, hard, and painful, but not very red; breasts gorged with milk; severe stitching pains in breast; feels sick on first sitting up. Dose.—Sixth or twelfth dilution.—*Hughes.*

The great medicine for mastitis. Specific for mastitis neonatorum.—*Hughes.*

Belladonna.—Breasts swollen, hard, glossy, with red streaks running in radii; throbbing, stitching pain, accompanied by headache and fever.

Phytolacca.—Chill, fever, painful engorgement, and swelling; the drawing of milk impossible; the gland full of *hard, painful nodosities.*

In ordinary *caked breasts* it is considered to be specific.—*Raue.*

Hepar sulph.—Threatening suppuration, or after suppuration has begun; the discharge is scanty, and there is still great hardness of the inflamed parts.

Phosphorus.—Phlegmonous inflammation; breast swollen, red in spots or streaks, hard nodosities. *Fistulous openings,* with watery, discolored, offensive, ichorous discharge.

Has cured fistulous conditions of breast left behind after milk abscess.—*Hughes.*

Apis.—Burning, stinging pains, with œdema.

Conium.—When from contusion. “Specific.”—*Hughes.*

Silica.—Chronic fistulous openings; profuse secretion of pus.

Graphites.—When there are so many old cicatrices from former abscesses, that the milk can scarcely flow.

It has never failed me.—*Guernsey.*

GENERAL MEASURES.

As soon as *hardness* appears, rub with olive oil, from circumference toward the center. Support the breast with sling of broad handkerchief. Apply warm fomentations, by a basin lined with flannel saturated with hot water and *Phyt.* tinct. If pus has begun to form, poultice. In opening abscess, make incision to correspond with radius, and at most dependent part. In old sinuses and chronic suppurating surfaces, two or three times daily inject Labarraque’s Solution (*Liquor Sodæ Chlorinatæ*), one part to ten of water.

The most active stimulant of chronic abscess or sinus I have ever known.—*Dr. Jacobus.*

Binding the inflamed breast snugly, so as to give it firm support against the chest, by broad roller passed round and round the body, will avert the formation of abscess. Re-apply the binder daily, and continue until the inflammation has subsided.

SORE NIPPLES.

Arnica.—Nipples feel *sore* after nursing.

Silica.—Much ulceration and suppuration.

Phytolacca.—Nipples sore and excoriated.

Graphites.—Minute vesicles, exuding glutinous fluid.

GENERAL MEASURES.

The nipples should be *carefully* washed after each nursing, and the child's mouth thoroughly cleansed *before* and *after* being put to the breast. When *sore*, *Hydras*, and *Glycerine*, equal parts, applied, will often cure. If there are suppurating sores, apply a lotion of *Calend. tinct.*, a drachm to an ounce, on soft cloths. If there are *deep* fissures or cracks, touch the raw surfaces with scale of *Arg. nit.* Lotion of *Phyl.* exceedingly useful; apply in cracked or excoriated nipples, or fissures of syphilitic origin. Until the nipple is entirely well, cover it with rubber shield while the child nurses. In those who are subject to sore nipples, bathe daily with *Arnica* lotion.

METRRORRHAGIA.

LEADING REMEDIES.

Ipecac.—After labor or miscarriage; continuous flow of bright-red blood; the patient is cold and pale; gasps for breath; chilliness and nausea.

Very frequently used.—*Guernsey*.

The first remedy I make use of is always *Ipec.*—*Jahr*.

Sabina.—After miscarriage or parturition; plethoric subjects; hemorrhage profuse, painful; blood fluid, and mixed with clots; drawing pains from back to pubes, precedes the flow.

Will help in many cases.—*Baehr*.

Used in frequency next to *Ipec.*—*Guernsey*.

China.—Heaviness of head; ringing in ears; obscuration of sight; fainting; face and extremities cold and pale; drowsiness; weak pulse; twitching and jerking of muscles. After loss of much blood.

Will be found of very great service.—*Guernsey*.

Secale.—Hemorrhage from atony of uterus, after protracted labor, or in feeble, cachectic subjects; uninterrupted, painless flow of dark, fluid blood; great prostration; faint-

ness; palpitation of heart; convulsive movements; cold skin.

Flooding in feeble, cachectic women.—*Lilienthal*.

Belladonna.—Profuse discharge of bright-red, hot blood, with downward pressure; severe pain in the back; *great vascular excitement*; throbbing of carotids; flushed face; red eyes; full, bounding pulse.

Very frequently indicated in uterine hæmorrhage, particularly in that after labor.—*Guernsey*.

Crocus.—Pressure and feeling of weight in pelvis, with feeling of something rolling in abdomen, and discharge of *dark, stringy, viscid, tenacious blood*.

Frequently called for in post-partum hæmorrhage.—*Guernsey*.

GENERAL MEASURES.

TAMPON.—Put the patient in Sims' position; with left forefinger, or Sims' speculum, retract the posterior vaginal wall; with pledgets of cotton, or free end of roller bandage, pack the vagina *posteriorly* to cervix; then *anteriorly*; then *centrally*; until firmly filled by plug, taking care not to obstruct the urethra. After sufficient time has elapsed, remove piecemeal, the patient in same position. Or, take a large sponge, moisten it, and then squeeze all the water out; compress it into small bulk, and pass it into the vagina through a speculum.

MENORRHAGIA.

LEADING REMEDIES.

Crocus.—Discharge black, viscid, stringy, and tenacious; earthy-yellow face; debility and palpitation.

Invaluable in functional form.—*Hughes*.

Sabina.—Plethoric subjects; uterine hyperæmia; drawing pain from back to pubes; blood bright-red.

Will cure large number of cases.—*Matheson*.

Ipecac.—Very profuse; constant nausea.

Secale.—Blood dark; without pain; increased by slightest motion.

Often proves curative.—*Hughes*.

Hamamelis.—Profuse, dark, thin blood.

Chamomilla.—Black, clotted discharge, with severe pains in the back; excessive sensibility, local and general.

Has undoubted control.—*Hughes*.

Nux v.—Menses too early and too profuse; stops for a day or two, and then returns; irritability; sedentary habits.

Trillium.—Menses every fourteen days, lasting seven or eight days; in interval, profuse, yellowish leucorrhœa; blood at first bright-red, but later is pale.

For active flow we possess no better remedy.—*Hale*.

Calcarea carb.—Menses too early, and too profuse and long-lasting; anæmic condition; mal-nutrition; congestion of head.

Sulph. and *Calc. carb.* successfully administered during interval between periods required in majority of cases to insure a radical cure.—*Laurie.*

GENERAL MEASURES.

Hot water bag to lower dorsal and lumbar regions.

DYSMENORRHŒA.

LEADING REMEDIES.

Actæa.—Severe pains in back, down thighs, and through the hips; hysteric spasms, cramps, and tenderness of hypogastrium; between menses, debility, neuralgic pains, tendency to prolapsus; rheumatic, irritable uterus.

Caulophyllum.—Spasmodic dysmenorrhœa; bearing-down pains; scanty flow; sympathetic spasms of adjacent organs, as bladder, rectum, bowels; hysterical spasms of chest and larynx.

I have had great success with *Macrotin* and *Caul.*, 2x trituration.

Viburnum.—Spasmodic dysmenorrhœa; excruciating, colicky pains in lower part of the abdomen, coming on suddenly, preceding menstrual flow, lasting for hours; should be given for a week previous to the flow, in tincture or 1x.

Cocculus.—Sharp, cramp-like pains, with scanty menses; distention of abdomen.

Crocus.—Dysmenorrhœa due to spasm of cervix; menstrual blood thick and dark.

Chamomilla.—Pressure in uterus resembling labor-pains; discharge dark and clotted, with tearing pains; frequent desire to urinate; uterine neuralgia; excessive irritability and impatience.

Pulsatilla.—Menses delayed and scanty; pains so violent she tosses about with cries and tears; blood dark and clotted; flows at intervals; great chilliness; uterine congestion.

Belladonna.—Menses too early and too profuse; blood bright-red; great downward pressure in genitals; face red and bloated; cerebral congestion. Congestive dysmenorrhœa.

SPECIAL REMEDIES.

Hamamelis.—Of ovarian origin.

Borax—Dysmenorrhœa with sterility.

Collinsonia.—Much pelvic congestion.

Coffea.—Excessive nervous excitability.

Sepia.—Chronic, with leucorrhœa and debility.

Gelsemium.—Spasmodic, to palliate during attack.

GENERAL MEASURES.

Hot fomentations across the hypogastrum, or hot sitz-bath at time of the attack if *free* flow. If flow is *scanty*, spinal ice-bag to lumbar and sacral regions; warm drinks; in the spasmodic form, *Gels.* at the time of the attack gives great relief. Dose.—Three to ten drops first-decimal, frequently repeated.

AMENORRHŒA.

LEADING REMEDIES.

Pulsatilla.—Delayed, suppressed, or scanty menstruation; pains in abdomen or loins; hysterical symptoms; nausea and vomiting; palpitation of the heart; loss of appetite; deranged digestion; pale face; lassitude; chilliness, and headache.

For the great majority of cases.—*Hughes.*

Actæa.—Pain in left breast and side; rheumatic tendency; headache; nervous excitement; peevishness; when from uterine derangement. Hysterical subjects.

Sepia.—Delayed menses. Sallow complexion; fair, sensitive skin; feeble, delicate subjects; leucorrhœa; hæmorrhoids and evidence of portal and pelvic congestion.

Conium.—General torpor of the organs. The breasts become enlarged and painful at every period. Complicated with ovarian or uterine disease, or chlorosis.

Aconite.—Sudden suppression from *cold*; congestion of head or chest; young, plethoric girls.

Bryonia.—Bleeding from the nose in place of menstrual discharge; dry, shaking cough; oppression of chest; heaviness or pressure in head.

Phosphorus.—Delicate constitution; weak, sensitive lungs; cough; expectoration of blood, and pain in the chest.

Calcarea carb.—Scrofulous subjects, and those inclined to incipient tuberculosis; cold, damp feet.

Ferrum.—Delay of first menses; debility; languor; palpitation; indigestion; leucorrhœa; sickly complexion; puffiness of face or ankles.

Calc. and *Ferr.* are the chief remedies.—*R. N. Foster.*

Nux v.—Patient of dark complexion, vehement disposition, sedentary habits; acute indigestion; constipation.

Graphites.—Menses delayed, scanty, and painful; constipation; tendency to eczematous cutaneous eruptions.

Next to *Puls.* in frequency of usefulness.—*Hughes.*

Sulphur.—Scrofulous eruptions; temporary flushes of heat.

GENERAL MEASURES.

Keep the feet warm, and the abdomen covered with flannel. Warm foot baths are useful, or, the cold sitz bath. Sit in a bath, with water at 58° or 60° F., five to ten minutes, at bedtime, keeping the legs and feet warm, and the shoulders well covered. After the bath, the patient should be well rubbed, and retire to bed. This is to be used *only in the functional variety*. When due to *constitutional* derangement, apply the *special* remedy, and prescribe nourishing diet, out-door exercise, and every means to restore the *general health*. In atony of uterus *electricity*, with *Conium*.

LEUCORRHOEA.

LEADING REMEDIES.

Alumina.—Profuse, yellow, acrid, corroding discharge, with burning in genital organs, the parts being corroded and inflamed; worse before and after the menses; constipation; inactivity of the rectum.

Ammonium carb.—Watery, burning discharge from the uterus; profuse, acrid, milky leucorrhœa; menses every fortnight, black, coagulated, and profuse; weak, delicate subjects.

Calcarea carb.—Profuse, milk-like, or yellowish discharge, with soreness and swelling of the vulva; too early and too profuse menses; scrofulous subjects, very sensitive to cold, with constant cold, damp feet.

Pulsatilla.—Discharge thick, like cream; or, milky, sometimes giving rise to a burning sensation; indigestion; chilliness; nausea and trembling. Especially for those of relaxed fiber and lymphatic temperament, in whom the menses are irregular, delayed, and scanty.

Vaginal leucorrhœa, in chlorotic subjects.—*Hempel*.

Specific for morbid activity of cervical glands.—*Hughes*.

Sepia.—Pressure and bearing down in pelvis; stinging pain in ovarian region; discharge variable—thick, creamy, yellowish, bland or excoriating, offensive. Leucorrhœa at puberty, during pregnancy, or at climacteric.

Debility and passive uterine congestion, in those who have borne many children.—*Hughes*.

Helonias.—Uterine leucorrhœa, from atony or congestion; general debility from over-lactation, or other drain on the system.

Hydrastis.—Yellow discharge of an extremely tenacious character, often offensive, frequently with long shreds in it. Often accompanied by derangement of the liver and stomach.

GENERAL MEASURES.

Attention to the state of the general health, of which this is usually but a local expression, is necessary. Irrigation of the vagina with cold water is beneficial. *Calend. water* or *Hydras. water* are better than astringent solutions as injections.

PRURITUS VULVÆ.

REMEDIES.

Arsenicum, Sulphur, Mercurius, Rhus ven., Chryso-phanic ac.

GENERAL MEASURES.

Apply compress wet with *Borate Soda*, two ounces; *Salicylic ac.*, one ounce; water, one quart. Also, dilute *Chryso-phanic ac.*, locally. Grain doses of *Chloral hyd.* are often very effective. *Carbolic ac.* lotion locally often relieves.

OVARITIS.

LEADING REMEDIES.

Apis.—Inflammation of right ovary; numbness in right side, extending down the thighs; sharp, lancinating, *stinging* pains in ovary. This is one of our most reliable remedies in ovarian affections.

Pulsatilla.—Sub-acute ovaritis, with menstrual suppression, nausea, chilliness, pressure on bladder and rectum; pains so violent she tosses about in all directions, with cries and tears.

I believe it to be far superior to most of the remedies ordinarily recommended.—*Hughes.*

Belladonna.—Hard swelling of ovary, with stitching, throbbing pains; constant bearing down in pelvis; perspiration; glistening eyes; cerebral congestion.

Lachesis.—Inflammation of left ovary, with swelling tense, pressing pains and stitches; cannot bear slightest pressure on ovarian region.

Hamamelis.—An excellent remedy in more intense form, when the peritoneal covering is not involved.

SPECIAL REMEDIES.

Aconite.—Much fever.

Mercurius sol.—Threatened abscess.

Hepar sulph.—To check suppuration.

Thuja.—Chronic of left side; much pain.

Conium.—Chronic ovaritis, with induration.

GENERAL MEASURES.

Hot fomentations, containing *Hamam.*, over affected part. Rest.

CLIMACTERIC.**LEADING REMEDIES.**

Actæa.—Pain in left side; pain at vertex and irritability of disposition; *faintness at epigastrium.*

It rarely fails to relieve.—*Hughes.*

Lachesis.—Hot “flushes,” burning in the vertex, and faintness.

Of great service.—*Bayes.*

Gelsemium.—Flushes of heat; burning pain in top of head.

Glonoine.—Rush of blood to the head; great giddiness; throbbing, beating, roaring in the ears.

A most efficient remedy.—*Hughes.*

Platina.—Vertigo; palpitation; headache; roaring in the ears. For those in whom menstruation has been profuse and prolonged.

Amyl nit.—Flushes of heat. Give by inhalation.

GENERAL MEASURES.

Frequent warm baths are helpful in tiding the patient over this critical period.

PART III.

SURGERY.

FRACTURES.

GENERAL CONSIDERATIONS.

PROGNOSIS.—*Simple fractures*, if properly treated, usually recover without deformity. *Exception*: fracture of the clavicle.

Compound fractures may be complicated by serious injury and suppuration or gangrene of the soft parts, erysipelas, and septic fever. Prognosis grave in bad cases; guarded in the majority.

Ununited fracture, or delayed union, liable to occur in (1) intra-capsular fractures of femur and humerus; (2) fractures of olecranon and patella; (3) fractures of the tibia in debilitated subjects.

Fibrous union occurs occasionally in cases of delayed union.

SIMPLE FRACTURES.

GENERAL RULES FOR TREATMENT.

1. Reduction, or setting.
2. Immobilization until union is established.

Setting must be carefully and properly done.

Immobilization accomplished by means of fixed and removable dressings.

Fixed dressings are made of plaster of Paris, starch, and the like.

Removable dressings are fracture boxes and splints.

PLASTER OF PARIS BANDAGE.

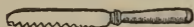
To apply a plaster of Paris bandage:

- (1) Wrap the limb in sheet cotton; (2) bandage it evenly with a common roller bandage; (3) prepare three to six gauze or cheese-cloth bandages, two or three inches wide, and five yards long; in the meshes sprinkle thickly dry plaster of Paris, and re-roll them; (4) place them in a dish,

cover with hot water, and leave them in it until the plaster is well wet; it is then ready to apply; (5) prepare a strip of tin or heavy card-board, one inch wide, and as long as the splint is to be; place this on the anterior surface of the limb — its use is to serve as a protection to the limb when cutting off the splint; (6) apply plaster of Paris rollers as an ordinary roller bandage; (7) have a small quantity of plaster of Paris moistened in a dish, and frequently rub some over the bandage as it is being applied; (8) when all is done, hold the limb in proper position until the plaster sets, *i.e.*, five or ten minutes.

Cautions.—Do not make the plaster too thin; apply quickly and evenly; do not bandage too tightly; protect by cotton upper and lower edges from touching the skin.

In removing, cut on the strip of tin or card-board, with a heavy-bladed knife, a pair of Henry's Plaster Cutters, or, better still, an old steel case-knife filed like a coarse saw.



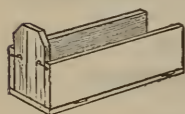
STARCH BANDAGE.

To apply a Starch Bandage:

(1) Apply sheet cotton; (2) bandage with ordinary roller; (3) prepare some starch; (4) apply other roller bandages, and, during the process, rub on plenty of starch; (5) keep the limb in proper position until firm.

FRACTURE BOX.

The fracture box is used in treating injuries of the leg.



It consists of a solid bottom six inches wide and two feet long; two hinged sides, six inches wide and two feet long, which hook on to a foot-rest eight inches long and four inches wide, put at right angles with the bottom. The box is carefully padded with cotton or oakum, to receive the injured limb.

Used in treatment of compound or comminuted fractures, or simple fractures with much effusion.

SPLINTS.

Splints may be improvised of strips of wood, $\frac{1}{2}$ to $\frac{1}{4}$ inch thick, or of heavy manilla board, or sole leather, etc. In order to mold manilla board or leather to the limb, immerse it in boiling water until pliable, then mold to the limb, pad with cotton, and retain in position by means of a bandage.

Caution.—Always pad splints well; especially protect any bony prominences from pressure, and thus avoid sloughing of the skin.

Extension must be applied in some cases to keep the fragments from over-riding. Generally necessary in fractures of the femur and humerus — occasionally in fractures of the tibia and fibula.

If the patient is seen immediately after the accident, before swelling has occurred around the fracture, a fixed dressing may be applied. If so, watch carefully, daily, for the following indications for removing the same: (1) *great pain* (probably due to displaced fragments); (2) *obstructed circulation* (examine the fingers and toes for coldness, cyanosis, and swelling); (3) *looseness of dressing*.

If there be effusion about the fracture, rest the limb temporarily in fracture box or army splint, and apply hot fomentations until the swelling disappears, then dress permanently.

ARMY SPLINT.

A temporary splint may be made of a blanket which is folded lengthwise to a width sufficient to act as a splint in any given case (usually fractures of the leg). Roll from both ends; put the limb between the rolls, and tie a bandage around them in three places.



In cases of fractures near joints, remove the dressings daily as soon as expedient (from fourteen to twenty-one days after injury), and practice passive motion for five or ten minutes, to prevent troublesome ankylosis.

COMPOUND FRACTURES.

GENERAL RULES FOR TREATMENT.

The question of amputation may require the best judgment of the experienced surgeon.

POINTS IN FAVOR OF THE OPERATION.

1. Crushing or tearing injury, rather than a fall, blow, etc.
2. Rupture of main artery, and conditions of collateral circulation.
3. Amount of hæmorrhage.
4. Condition of patient, whether the system would be able to stand the long drain of healing.
5. Shock, reaction, etc.

Treat the external wound antiseptically; remove all foreign matter, dirt, gravel, splinters, etc.; remove all detached pieces of bone in *comminuted* compound fractures; remove all soft tissues that are very badly crushed; wash with antiseptic solution (*Corrosive Sublimate*, 1:1,000; *Carbolic acid*, five per cent.); provide for free drainage; place the limb in a fracture box, or in a *fenestrated* fixed dressing.

UNUNITED FRACTURES.

RULES FOR TREATMENT.

1. Rub the fractured ends against one another for two or three minutes, to irritate, and cause inflammation.

2. Wire the fragments together by drilling holes. Use silver wire.

3. Build up patient's general health.

Separation of articular cartilages is treated on the same principle as fractures occurring near the point involved.

SPECIAL FRACTURES.

FRACTURE OF THE SKULL.

PROGNOSIS.— Depends upon the brain's injury (concussion, compression, or laceration) rather than the fracture. Compression and laceration are grave complications, and often fatal.

Compound or depressed fractures, or fractures of the base, are much more serious than simple fractures of the vertex.

TREATMENT.

In simple fractures without depression, keep the patient perfectly quiet in bed. In compound fractures, try to establish quick union of the external wound; dress it antiseptically; keep the patient in bed. In depressed fractures the fragment should be elevated if there are symptoms of compression, or irritation of the brain. Trephine, if necessary to raise it.

TREPHINING.

Instruments Necessary.— Scalpel, forceps, artery forceps, trephine, bone elevator, quill or straw, sponges, antiseptic dressing, needles and silk, carbolized catgut.

Shave the hair from around the seat of operation; wash with antiseptic wash. If the bone is not exposed, make a U-shaped incision through the soft parts over the injury, and reflect them back so as to expose the fracture. It may be possible to elevate the depressed fragments without using the trephine, if a small splinter can be removed, and thus make an entrance for the elevator underneath the depressed piece; otherwise, apply the trephine on the sound portion of the skull, the edge touching the line of fracture. Saw evenly. After starting, withdraw the center-pin, and again saw. After passing the diploë, go very slowly, in order not to wound the dura mater. Probe the groove frequently with a quill or straw. As soon as the dura mater is felt at one point, tilt the trephine toward the opposite side, and proceed *very gently* until the circular piece is entirely detached; then remove with the elevator. The depressed

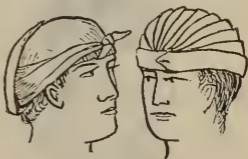
fragment can then be raised by inserting the elevator, and using the sound part of the skull as a fulcrum.

Cautions.—Avoid trephining over any sinus or large vessel. Avoid wounding membranes.

In dressing, provide for free drainage by inserting a small tube across the base of the U. Sew up edges; dress antiseptically, and bandage with handkerchief or capelline.

HANDKERCHIEF BANDAGE.

Use a piece of cloth, one yard square; fold diagonally; put the diagonal on the forehead; pass the two ends behind the occiput, and around to the forehead again; fasten; fold the point hanging at the back up over the vertex, and fasten.



CAPELLINE.—Roller, two inches wide, and six yards long. Begin at the forehead; pass backward and forward until the vertex is closed in; then encircle the head horizontally a few times, and fasten by pins at occiput and forehead.

Fractures of the base of the skull are treated by absolute rest.

FRACTURE OF THE NASAL BONES

PROGNOSIS.—Results not always favorable; may be some deformity; obstinate injury to treat.

TREATMENT.

Replace fragments by inserting a female catheter in the nares, and manipulating. Plug the nostrils with cotton for two or three days in cases of marked deformity.

FRACTURE OF THE FACIAL BONES.

They are rare, and very difficult to treat. No rules can be given. Surgeon must rely on his good judgment and knowledge of anatomy in each case.

FRACTURES OF THE INFERIOR MAXILLA.

PROGNOSIS.—Union in two to four weeks in simple fractures, usually without deformity. Comminuted fractures apt to result in deformity.

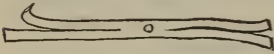
TREATMENT.

In simple fractures of the horizontal portion, use a four-tail bandage. Remove any tooth that interferes with coaptation. The upper jaw answers for a splint. Feed the patient on liquids, milk, broths, etc., by means of a rubber tube, or bent glass tube, passed between the cheek and teeth, to the space behind the molars, or through an opening made by an extracted tooth.

SIMPLE FRACTURE.

DRESSING.

(1) Make a four-tail bandage of a piece of cloth, one yard long and four inches wide; (2) mold a piece of (a) leather, or (b) cardboard to the chin, or (c) make a straight piece of wood, four inches long and one and one-half inches wide, for chin to rest on; (3) pad splint with cotton, and hold in position; (4) apply four-tail bandage to the chin, the lower tails passing over the vertex, the upper passing back of the occiput, and joining at the forehead; (5) fasten by pins where the strips cross, and hold them in position by a piece of bandage passing from forehead to occiput longitudinally over the vertex.



COMMUNUTED FRACTURE.

TREATMENT.

These fractures are difficult to treat. It may be necessary to drill holes in fragment and wire them together, using silver wire. Kingley's interdental vulcanite splint is successful in some cases, but a dentist is required to make it.

DRESSING.

Process.—(1) Replace the fragments, and take a plaster of Paris cast of the teeth and jaw; (2) from this model a vulcanite mold is made, in which the lower jaw fits; (3) in this mold two stout wires are fastened, which run out the corners of the mouth and along the outside of the cheeks; (4) the mouth is fitted to the lower jaw; (5) a bandage is passed under the chin, and around the wire wings. By this means the mold is held firmly on the fracture of the jaw. The lower jaw thus dressed may then be bandaged to the upper one; but the patient may be allowed to open the mouth for the introduction of liquid food.



FRACTURE OF THE HYOID BONE.

PROGNOSIS.—Rarely fatal, but difficult to treat; parts are in such constant motion.

TREATMENT.

Reduce by manipulation, inserting finger of one hand in patient's mouth. Use anæsthetic if necessary. Keep patient perfectly quiet. Apply neck-collar of leather to immobilize the neck. Feed on liquids by means of tube, or introduce food well back in the mouth.

FRACTURE OF THE SPINE.

PROGNOSIS.—Very grave. Complete fractures are usually fatal, particularly when in cervical and dorsal regions. Some cases recover, but usually paralysis remains. Fracture of the vertebral processes not dangerous.

Complications.—Concussion and compression of spine; paralysis of limbs, bowels, and bladder; bed-sores.

TREATMENT.

Perfect quiet in all cases. Extension and counter-extension advisable in some cases. Extension of head is accomplished by means of a leather head-rest, such as is used in the treatment of Pott's disease, to which is attached a weight of three or four pounds, passing over the head of the bed. Extension of body accomplished by raising the head of the bed by two bricks under the legs. Mold sand-bags to the patient's sides, to prevent his moving.

GENERAL MEASURES.

Pay particular attention to the bladder; if paralyzed, catheterize every four hours, and keep parts scrupulously clean to avoid cystitis and sloughing, often fatal complications.

FRACTURE OF THE CLAVICLE.

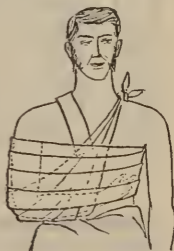
PROGNOSIS.—Usually some deformity; impossible to keep the fragments in exact apposition, on account of opposing action of attached muscles. Union established in two to four weeks.

TREATMENT.

Keep shoulder elevated, and rotated outward and backward. Best results obtained by keeping patient on his back for two weeks.

DRESSING.

(1) Put a small pad in the axilla; (2) raise shoulder by a sling under the elbow; (3) hold arm to the side by a bandage around the chest; (4) if one fragment tilts up, put a compress of cotton on it, and draw it down by a strip of adhesive plaster two feet long and two or three inches wide, running from the anterior to the posterior part of the chest.



FRACTURE OF THE RIBS.

PROGNOSIS.—Speedy union (in two to three weeks) if uncomplicated. If complicated with visceral injury (lungs, heart, liver, etc.), the danger is increased. The danger then is from shock, hæmorrhage, and inflammation.

TREATMENT.

Keep patient in bed two weeks. Immobilize the wounded side by strips of adhesive plaster two inches wide, and long enough to reach from spine to sternum, applied so as to overlap one another. Put a broad cloth bandage tightly around the chest, and hold in place with shoulder straps. Remove the dressing in one month. Apply the adhesive strips during the act of expiration.

FRACTURE OF THE STERNUM.

PROGNOSIS.— Usually favorable if uncomplicated.

TREATMENT.

If fragments overlap they can be set during a deep inspiration; dress as for fractured ribs— adhesive strips across the front of chest, and broad cloth bandage.

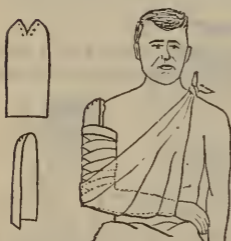
FRACTURE OF THE SCAPULA.

PROGNOSIS.— May be some deformity.

TREATMENT.

Raise the arm by a sling; put a pad over the scapula and in the axilla; bandage the arm and chest.

FRACTURES OF THE HUMERUS.



I. FRACTURE OF THE ANATOMICAL NECK.

PROGNOSIS.— Bony union.

TREATMENT.

(1) Pad in the axilla; (2) molded leather or manilla board splint to the shoulder; (3) bandage the arm evenly; (4) support the hand and forearm in a sling.

II. FRACTURE THROUGH THE SURGICAL NECK.

PROGNOSIS.— Usually favorable; occasionally fibrous union, or atrophy of the bone.

TREATMENT.

(1) Pad in the axilla; (2) carry the elbow forward and inward; (3) splint to the outer side of the arm; (4) bandage; (5) sling.

III. FRACTURE OF THE SHAFT.

PROGNOSIS.—Delayed union occasionally; non-union not uncommon. In oblique fractures union with shortening may result.

TREATMENT.

(1) Long outside splint; (2) short inside splint; (3) bandage and sling. May be necessary to attach a weight to the elbow if the fragments over-ride and cause shortening.

IV. FRACTURE NEAR THE LOWER END.

PROGNOSIS.—The nearer the elbow the more unfavorable. Danger of ankylosis of the joint from disuse.

TREATMENT.

(1) Dress on a right-angled padded elbow splint; (2) bandage; (3) sling. At the end of ten days or two weeks, take off the bandage and practice gentle motion of the elbow; if the fragments are united, repeat this every day to prevent ankylosis.

FRACTURES OF THE ULNA.

I. FRACTURE OF THE OLECRANON PROCESS.

PROGNOSIS.—Ligamentous union not unusual.

TREATMENT.

Dress the arm in extension by long posterior splint. In third week attempt passive motion of the elbow joint.

II. FRACTURE OF THE CORACOID PROCESS.

PROGNOSIS.—Favorable.

TREATMENT.

Dress at right angles on an angular elbow splint. Fractures of the shaft of the ulna or radius are treated on the same plan as fractures of *both bones of the forearm*.

FRACTURE OF BOTH BONES OF THE FOREARM.

PROGNOSIS.—Usually favorable. May be some deformity, and may be some interference with pronation and supination of the hand.

TREATMENT.

(1) Dress the arm held between pronation and supination with an anterior and a posterior broad, flat, well padded

wooden splint; (2) use interosseous graduated compress, if the bones are crowded together; (3) keep elbow at right angles, and suspend hand and arm in a sling; (4) immobilize the wrist, but leave the fingers free.

FRACTURES OF LOWER END OF THE RADIUS.

(COLLES' AND BARTON'S FRACTURES.)

PROGNOSIS.—Some deformity apt to remain, particularly displacement of the ulna outward, and tilting backward of the lower fragment.

TREATMENT.

Simplest and most efficient method of dressing is to use two straight padded splints; the dorsal, three inches wide, extending from the elbow to the metacarpus, padded heavily over the lower fragment to force it forward; the anterior, three inches wide, extending from the elbow to the wrist, padded heavily over the upper fragment.

Use passive motion of the fingers and wrist in two weeks, to prevent ankylosis.

FRACTURE OF THE METACARPAL BONES.

TREATMENT.

Use thickly padded palmar splint.

FRACTURE OF THE PHALANGES.

TREATMENT.

Dress on narrow finger-splint applied on the dorsal or palmar surface.

FRACTURE OF THE PELVIC BONES.

PROGNOSIS.—Grave. Apt to be complicated with rupture of the bladder, urethra, or rectum.

TREATMENT.

Rest in bed. Fragments may sometimes be replaced by manipulation in the rectum.

If bladder or urethra is injured, pass a catheter, and retain it if necessary.

Perineal section demanded in some cases of extravasation of urine.

FRACTURES OF THE FEMUR.

I. INTRA-CAPSULAR FRACTURE OF THE NECK.

PROGNOSIS.—Unfavorable. Rarely bony, usually ligamentous, union; sometimes non-union.

TREATMENT.

Quiet rest in bed for three or four weeks; leather hip-splint; good diet; keep the patient's strength up. At the end of four weeks, let the patient up on crutches.

II. EXTRA-CAPSULAR FRACTURE OF THE NECK.

PROGNOSIS.—Better than in intracapsular; union, bony; but there is apt to be some lameness; union in six or eight weeks.

TREATMENT.

If not impacted, the treatment is the same as for fractures of the upper and middle parts of the shaft.

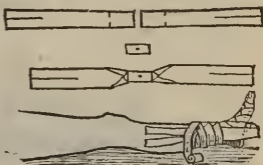
Let patient get up on crutches in four weeks.

III. FRACTURES OF THE UPPER AND MIDDLE THIRDS OF THE SHAFT.

PROGNOSIS.—Deformity not uncommon from overriding and displacement of the fragments. Union in from six weeks to two months.

TREATMENT.

1. **Extension.**—Apply two swansdown plaster strips, three inches wide, one on each side of the leg, from the knee down to a few inches above the ankle; to the free ends of the straps, which should reach eight or ten inches below the sole of the foot, fasten a bit of wood, four inches by two, and attach a cord and weight to this.



2. Bandage from the toes up to the groin, holding four padded wooden splints running on the four surfaces of the thigh over the fracture.



3. Apply Liston's long side-splint.

4. Put the patient on a *hard* bed.

5. Raise the lower end by means of bricks.

6. Mold sand-bags or cushions to the sides of the leg.

7. Use a weight of from eight to sixteen lbs., according to the age of the patient. Light weights in comminuted fractures.



Allow patient to get up and exercise on crutches in four weeks, if everything is favorable, having a long side-splint or a starch bandage on for protection.

IV. FRACTURE OF THE LOWER THIRD.

PROGNOSIS.—Favorable, unless the knee joint is involved.

TREATMENT.

Dress on a double inclined plane.



Fractures of the shaft of the femur may be treated by plaster of Paris fixed dressing, which is applied while the limb is held in extension.

FRACTURE OF THE PATELLA.

PROGNOSIS.—Guarded. Fibrous union not uncommon. Ankylosis probable, unless passive motion is used.

TREATMENT.

Dress limb with knee in extension, and thigh slightly flexed, on an inclined plane.

Effusion reduced by hot fomentations, or aspiration. Draw the fragments together by two strips of plaster, one and one-half inches wide, and long enough to pass obliquely around the knee. Apply them on the figure-of-eight plan. Bandage firmly to prevent effusion. Union in six to eight weeks. Practice passive motion in three or four weeks.



FRACTURES OF THE TIBIA.

PROGNOSIS.—Usually favorable; may be delayed, or non-union. Union occurs usually in six or eight weeks.

TREATMENT.

Put the leg in a fracture-box for two or three weeks; then dress in plaster of Paris or heavy pasteboard splints, and let the patient get about on crutches.

FRACTURES OF THE SHAFTS OF THE TIBIA AND FIBULA.

PROGNOSIS.—May be some deformity from shortening. Delayed union sometimes. Union in six to eight weeks.

TREATMENT.

If there is effusion, use a fracture box and hot fomentations. If shortening, apply extension below the fracture—weight about three pounds. Put on a fixed dressing in two or three weeks; plaster of Paris, or heavy board splints. In four or five weeks, allow patient to go about on crutches.

DELAYED OR NON-UNION OF FRACTURED TIBIA.

1. Produce irritation by rubbing the fractured ends together.

2. If that fails, operate.

Instruments.—Scalpel, bone forceps, or small saw, bone drill, silver wire, needles, silk, etc.

OPERATION.

(1) Make a linear incision across the fracture; (2) snip or saw off any projecting points of bone; (3) drill holes obliquely through the edges of both fragments, and pass a wire through them; (4) draw the pieces together firmly by the wire. One or two wires are sufficient.

Provide for drainage; close the edges; dress antiseptically. Remove the wire in two or three weeks.

FRACTURE OF FIBULA.

(POTT'S FRACTURE.)

PROGNOSIS.—Favorable. Some trouble with the ankle apt to remain.

TREATMENT.

Dupuytren's Method.—Padded board splint, six inches wide, and reaching from the knee to two inches below the foot; pad most heavily above inner malleolus; apply to the inner aspect of the leg; bandage the foot firmly to it by means of figure-of-eight bandage; fasten the knee firmly; do not apply the bandage over the fracture.

Union in six weeks. The patient may get about on crutches in two or three weeks.

DISLOCATIONS.

GENERAL CONSIDERATIONS.

SIMPLE DISLOCATIONS.

PROGNOSIS.— Good in recent, simple dislocations, if properly treated. Danger of becoming again dislocated if the joint is used too freely or too soon after reduction. This may lead to *habitual dislocation*.

If a dislocation is not reduced shortly after the accident, the displaced bone becomes more or less firmly adherent in its new position; the old articular cavity becomes filled with inflammatory products, and the result is an *irreducible dislocation*.

Ball-and-socket joints are reducible after a longer period than any other kind. Dislocated shoulders have been reduced at the end of four months; the hip at the end of two months.

TREATMENT.

Reduction.— Reduce as soon as possible after the accident. Anæsthesia is often required to relax the muscular contractions and deaden pain. Reduction is best accomplished by manipulation (see special dislocations).

Obstacles to Reduction.— (1) Contraction of muscles (overcome by anæsthetics); (2) very small rupture in the capsule of the joint, which is closed by the overlapping of the soft parts; overcome by manœuvring, or by subcutaneous incision of the capsule, if necessary.

In the reduction by manipulation everything depends upon a correct anatomical knowledge.

AFTER-TREATMENT.

(1) Subdue synovial inflammation after reduction by cold or hot compresses; (2) keep the joint at rest for about two weeks before attempting any motion.

If motion is attempted too soon, there is danger of re-dislocation.

HABITUAL DISLOCATIONS.

PROGNOSIS.— Unfavorable for a permanent cure. Danger of becoming dislocated anew every time there is an extra strain upon the joint.

TREATMENT.

Reduce, and immobilize the joint until it has become a little stiff, then practice gentle motion. Treatment often fails.

IRREDUCIBLE DISLOCATIONS.

PROGNOSIS.— Reduction is out of the question on account of adhesions, and obliteration of the original articular cavity.

TREATMENT.

An effort may be made to make a false joint at the point where the head is adherent.

COMPOUND DISLOCATIONS.

PROGNOSIS.—Grave. It is much more serious than a compound fracture. The danger is from suppuration, septicæmia, hæmorrhage, etc.

TREATMENT.

Resection or amputation is demanded in many compound dislocations, especially of the larger joints. If it is deemed advisable to attempt to save the limb, use a thoroughly antiseptic dressing, and dress in a convenient position if ankylosis occurs.

DISLOCATION COMPLICATED WITH FRACTURE.

PROGNOSIS.—Guarded. Danger of ankylosis of the joint.

TREATMENT.

Reduce the dislocation; dress as for an ordinary case of fracture. In ten days practice passive motion of the joint very gently. Repeat at the end of five days, and after that as often as deemed advisable.

SPECIAL DISLOCATIONS.

DISLOCATION OF THE LOWER JAW.

PROGNOSIS.—Good. May be reduced after four months' standing. If not reduced, the jaw will accommodate itself to the new position, and, in time, a certain amount of motion will be acquired.

TREATMENT.

Reduction.—Depress the lower jaw sufficiently to free the condyle from the *eminentia articularis* of the temporal bone, and then push it back to its place.

1. Depress the lower jaw by inserting the thumbs behind the molar teeth and drawing downward. Protect the thumbs from injury by wrapping cloth around them.

2. A piece of wood may be used as a fulcrum, by placing it between the molars, and then prying upon the chin. When the condyle is free, push the jaw into position.

DISLOCATION OF THE VERTEBRÆ.

PROGNOSIS.—Very grave. If recovery follows, the patient is apt to be paralyzed.

TREATMENT.

Any treatment other than absolute rest is extremely dangerous. Patients are apt to die during attempts at

reduction, but some recoveries have followed such endeavor. The indications are to use sufficient extension to disengage the locked parts, and then replace the displaced portion with gentle pressure.

DISLOCATIONS OF THE CLAVICLE.

PROGNOSIS.—Guarded so far as perfect recovery is concerned. Danger of habitual dislocation.

TREATMENT.

Easily reduced, but difficult to retain in position.

DISLOCATION OF THE ACROMIAL END.

Pass a bandage from the elbow up the back, over the dislocation, down the front, under the elbow, up the back, over the shoulder, across the front of the chest, under the opposite shoulder, around the back, and then bind the injured member to the chest by two or three turns of the bandage.

DISLOCATION OF THE STERNAL END.

Keep the chest thrown forward, and the shoulders back; strap a compress over the dislocation with an adhesive plaster.

DISLOCATIONS OF THE HUMERUS.

PROGNOSIS.—Usually good. Occasionally reduction is difficult.

VARIETIES.—Sub-glenoid; sub-coracoid; sub-clavicular; sub-scapular.

TREATMENT.

SUB-GLENOID DISLOCATION.

Anæsthetize the patient if necessary to overcome muscular contractions. While an assistant extends the arm downward parallel with the body, the surgeon pulls the head of the humerus toward the socket.

If alone, the surgeon may seat the patient in a chair, and resting one foot on the chair, place the knee in the axilla, and extend the arm over the knee.

Sometimes much difficulty is experienced in setting.

SUB-CORACOID DISLOCATION.

The treatment is the same as for sub-glenoid dislocation.

SUB-CLAVICULAR DISLOCATION.

Use sufficient extension to free the head of the humerus from the tendons of the biceps and coraco-brachialis, and then proceed as in the sub-glenoid dislocation.

SUB-SCAPULAR DISLOCATION.

This is a very rare dislocation. Treatment is simply extension outward and downward.

N. B.—In all dislocations, immobilize the joint for at least two weeks.

DISLOCATIONS OF THE ELBOW.

PROGNOSIS.—Usually good. Forward dislocations of the radius liable to become habitual.

VARIETIES.—(1) Dislocation of both bones backward, or forward; (2) lateral dislocation of both bones; (3) dislocation of one of the bones.

TREATMENT.

DISLOCATION OF BOTH BONES BACKWARD.

Place the knee in the bend of the elbow, flex the forearm, and make extension on the hand and wrist.

DISLOCATION OF BOTH BONES FORWARD.

Rare. Forced flexion of the forearm and pressure will reduce it.

DISLOCATION OF THE HEAD OF THE RADIUS.

Reduction accomplished by extension of the forearm and pressure upon the head of the radius toward the socket. Dislocations of the ulna very rare.

DISLOCATION OF THE WRIST.

PROGNOSIS.—Good. Simple dislocations of the wrist are rare. Usually complicated with fracture of the radius (Colles' Fracture).

TREATMENT.

Extension of the hand and pressure upon the displaced bones will reduce this dislocation.

DISLOCATION OF THE FINGERS.

TREATMENT.

Easily reduced by extension. Bind on a splint for a week after reduction.

DISLOCATION OF THE THUMB.

Bend the metacarpal joint into the palm of the hand. Press the first phalanx of the thumb backward. Pull the thumb downward toward the tips of the fingers, flex the thumb into the palm of the hand.

DISLOCATIONS OF THE HIP.

PROGNOSIS.—Usually favorable. Sometimes difficult to reduce. Safe to attempt reduction four weeks after injury.

VARIETIES.—(1) Dislocation on dorsum ilii; (2) dislocation in sciatic notch; (3) dislocation into thyroid foramen; (4) dislocation on pubes.

TREATMENT.

DISLOCATION ON THE DORSUM ILII.

Anæsthetic required in all dislocations of the hip. Put

the patient on his back. (1) Flex the knee and hip well; (2) adduct the thigh; (3) rotate outward; (4) suddenly bring limb down in a line straight with the body.

DISLOCATION INTO THE SCIATIC NOTCH.

Method of reduction the same as for dislocation on dorsum ilii.

DISLOCATION INTO THE THYROID FORAMEN.

(1) Flex the hip and knee; (2) abduct; (3) rotate inward; (4) adduct; (5) straighten the leg.

DISLOCATION ON THE PUBES.

Same as in dislocation into thyroid foramen.

DISLOCATIONS OF THE PATELLA.

PROGNOSIS.— Usually favorable, unless there is complete rotation on the axis.

VARIETIES.— Lateral, and on its own axis.

TREATMENT.

Lateral dislocations reduced by relaxing the quadriceps extensor, and manipulating the patella. (1) Put the patient on his back; (2) flex the thigh; (3) hold the knee in extension; (4) press the patella into position. If rotated, try to reverse it by manipulation. It is not always possible.

Ruptures of the ligamentum patellæ, or of the quadriceps tendon, are treated by stitching the ruptured ends together with carbolyzed catgut or silk. Operate under antiseptic precautions, and do not open the knee joint.

DISLOCATIONS OF THE TIBIA.

PROGNOSIS.— Favorable in simple dislocation; usually incomplete.

VARIETIES.— Lateral, backward, and forward dislocations.

TREATMENT.

(1) Lateral dislocations reduced by extension and pressure, or rotation in the proper direction; (2) backward dislocations reduced by extreme flexion; (3) forward dislocations by extreme extension. Compound dislocations usually call for immediate amputation.

DISLOCATION OF THE ANKLE JOINT.

PROGNOSIS.— Usually favorable. May be complicated with fracture of fibula, *i.e.*, Pott's fracture.

TREATMENT.

Simple dislocations easily reduced by extension and pressure in proper direction.

DISLOCATION OF THE TARSUS.

PROGNOSIS.— Guarded. Difficult to reduce.

TREATMENT.

Attempt reduction by extension and pressure. Resection required in compound dislocations.

AMPUTATIONS.

GENERAL CONSIDERATIONS.

PROGNOSIS.—The prognosis is influenced by (1) age; (2) general health; (3) circumstances demanding amputation.

1. The younger the patient, the more favorable the outlook.

2. Tubercular diathesis, broken-down constitutions from disease or dissipation, cloud the prognosis.

3. Amputations after accidents, acute joint diseases, etc., are more formidable than in chronic diseases.

Death occurs from (1) shock; (2) hæmorrhage; (3) blood-poisoning, etc.

OPERATIONS.

VARIETIES.—(1) Flap; (2) circular; (3) mixed skin-flap, and circular of muscles.

1. Flap operations made by lateral or antero-posterior flaps of the muscles and skin.

2. Circular operations made by first cutting through the skin transversely around the limb, reflecting the skin cuff, a distance equal to one-half the diameter of the limb, and then cutting through the muscles to the bone. Retract the muscles as much as possible, and saw the bone.

3. The mixed operation consists in making skin-flaps, reflecting them back to a proper point, and then making circular cuts of the muscles.

STEPS OF AN OPERATION.

Instruments.—Amputating knives, bone saw, bone forceps, artery catch-forceps, ligatures, needles and silk, an Esmarch's bandage, or tourniquet. Have plenty of assistants.

1. Apply Esmarch's bandage to the limb; use compression of subclavian and femoral arteries in the shoulder or hip-joint amputations.

2. Wash the parts thoroughly with antiseptic solution.

3. Divide the soft parts by flaps, circular, or mixed method.

4. Saw the bone, removing any sharp edges with bone forceps.

5. Search for main artery and ligate.

6. Loosen the bandage cautiously; secure bleeding arteries and ligate.

7. Irrigate the flaps with antiseptic solution.

8. Control capillary oozing by compression, by hot water, or, if necessary, in rare cases, by solution of *Sulphate of iron*.

9. Wash all clots off the flaps, and stitch them together, after providing for drainage by inserting a drainage tube.
10. Dress the wound antiseptically.

AFTER-TREATMENT.

Treat *shock* by stimulation, giving teaspoonful doses of brandy every half-hour.

Allay *pain* with *Morphia*, one-eighth grain doses, when necessary.

Treat *secondary hæmorrhage* by (1) elevating stump, and using pressure; (2) by opening wound, and securing bleeding vessel.

Treat *surgical fever* by *Aconite*.

Treat *blood-poisoning* by *Baptisia*; *Sulphate of quinia*, one grain every two hours, and stimulation, giving a milk punch every three hours.

SPECIAL AMPUTATIONS.

AMPUTATION AT THE SHOULDER JOINT.

Mortality.—Two out of three recover.

OPERATION.

Lateral flaps. Have one assistant compress the subclavian, by pressing it against the clavicle; another to hold the limb; a third to be in readiness to seize arteries.

1. Make external flap to include most of the deltoid muscle. The curve of the flap should extend from the acromion process downward, outward, and backward, almost to the posterior border of the axilla.

2. Open capsule, and free the head of the humerus of muscles attached to tuberosities.

3. Dislocate the head outward; pass the knife close to the inner side of the humerus; cut downward, and finally inward, through the remaining soft parts, to make the inner flap.

5. Assistant should follow the knife closely during this procedure, and grasp the axillary artery before, or, as it is being severed. Ligate it at once, and then the vein. Next secure and ligate the circumflex, sub-scapular, and any other arteries.

Complete the operation as directed in *General Considerations*.

AMPUTATION OF THE ARM.

OPERATION.

Use flap, or circular method. Have one assistant hold the arm.

1. Apply Esmarch's bandage.
2. Make antero-posterior flaps.
3. Hold them back with retractor, and saw the bone.
6. Secure and ligate the brachial artery.

5. Loosen the bandage cautiously, and ligate other bleeding vessels.

6. Complete the operation as directed in *General Considerations*.

AMPUTATION OF THE FOREARM.

Use the mixed method.

1. Apply Esmarch's bandage.

2. Make antero-posterior skin-flaps, the forearm being held between pronation and supination.

3. Make circular incision of the muscles.

4. Divide the interosseous membrane.

5. Protect the soft parts by a three-tailed retractor, and saw the bones.

6. Four arteries to be ligated, the radial, ulnar, anterior, and posterior interossei.

Complete the operation as directed in *General Considerations*.

AMPUTATION OF THE FINGERS.

Usually done by disarticulation.

I. DISARTICULATION AT THE PHALANGEAL ARTICULATIONS.

Control hæmorrhage by an elastic rubber tube tied around the base of the finger.

1. Strongly flex the joints of the finger, and make an incision in the crease of the knuckle, thus opening the joint.

2. Divide the lateral ligaments.

3. Make long flap of the muscle in front of the disarticulated phalanx.

Complete the operation as directed in *General Considerations*.

II. DISARTICULATION AT THE METACARPO-PHALANGEAL JOINT.

Apply an Esmarch bandage at the wrist.

1. Make a pear-shaped incision from the knuckle around the finger.

2. Sever the lateral ligaments of joint, and disarticulate.

Complete the operation as directed in *General Considerations*.

AMPUTATION AT THE HIP JOINT.

Mortality.—The most formidable major operation in surgery. About one-half the cases die.

OPERATION.

Have one trusty assistant to compress the femoral artery at the brim of the pelvis; a second to hold and manipulate the limb; a third to secure the arteries.

Draw the patient to the end of the table, so that the buttocks shall project.

An abdominal tourniquet may be used.

1. While second assistant holds the leg slightly flexed, adducted, and rotated inward, the surgeon inserts the knife between the anterior superior spine of the ilium and great trochanter. The point should pierce the capsule and emerge in front of the tuberosity of the ischium. Cut downward, close to the bone, until third assistant can put his fingers into the wound and seize the femoral vessels, then complete the anterior flap, making it from seven to ten inches long.

2. Open the joint, if it was not done before, and disarticulate the head of the femur; the second assistant at the same time extending the thigh and rotating outward.

3. Finish the amputation by making a short posterior flap.

4. Ligate the femoral, profunda, obturator, and sciatic arteries.

Complete the operation as directed in *General Considerations*.

AMPUTATION AT THE THIGH.

The operation resembles that of the arm.

Lateral flaps are preferable at the lower third.

The circular method may be used.

The arteries to be ligated are femoral, profunda, external circumflex, and anastomotica magna.

AMPUTATION OF THE LEG.

Mixed method very serviceable. In sawing the bones, complete the division of the fibula first, and bevel off the sharp anterior edge of the tibia.

AMPUTATION AT THE ANKLE.

Syme's Operation. — Disarticulation at the ankle joint.

1. Make incision from half an inch below the inner malleolus, across the dorsum of the foot to the outer malleolus.

2. From the ends of this incision make a second, running downward and slightly backward under the heel.

3. Carefully dissect the os calcis, and disarticulate at the ankle.

4. Ligate the anterior tibial, and both plantar arteries.

AMPUTATION OF THE FOOT.

Chopart's Operation. — Disarticulation between astragalus and the os calcis on one side, and scaphoid and cuboid bones on the other.

1. Short dorsal flap, beginning from prominence of scaphoid to one inch behind the fifth metatarsal.

2. Disarticulate.

3. Make long plantar flap extending to the roots of the toes.

4. Ligate the dorsalis pedis, plantar, and digital arteries. Complete as under *General Considerations*.

Lisfranc's Operation.—Disarticulation between the tarsus and metatarsus.

1. Dorsal incision from one inch before prominence of scaphoid to base of fifth metatarsal.

2. Disarticulate; remembering that the second metatarsal is back about half an inch.

3. Make long plantar flap.

Complete as directed under *General Considerations*.

AMPUTATION OF THE TOES.

Operations similar to those on the fingers.

CUT THROAT.

PROGNOSIS.—Guarded. If an important vessel is injured, death is almost immediate. Death may occur primarily, from (1) hæmorrhage; (2) suffocation; secondarily, from (1) blood-poisoning; (2) pneumonia.

TREATMENT.

1. Ligate the bleeding vessels.

2. When the larynx or trachea is injured, remove clots, and insert a tracheotomy tube, if necessary.

3. Provide for free drainage, and stitch the edges together.

4. Keep the head flexed on the chest.

5. Feed vigorously. If the œsophagus is injured, use a stomach tube.

6. Watch the patient, and prevent suicidal attempt.

FROST BITES.

Warm the frosted members gradually. Avoid hot water and fires at first. Use friction with cold flannels, furs, etc. After circulation is restored, treatment the same as for burns.

Dress with carbolized oil (*Carbolic acid*, 1 oz., *Linseed oil*, 1 pint), and wrap in cotton. If gangrene follow, wait for line of demarcation, and amputate.

TRACHEOTOMY.

Indications.—(1) foreign bodies in trachea, bronchi or pharynx; (2) scald of glottis in children; (3) preliminary to extensive operations about the jaws and throat (administer anæsthetic through tracheal tube); (4) croup and laryngeal diphtheria, with *laryngeal dyspnœa*, indicated by presence of considerable exudation in larynx, and respiration so difficult that there is sinking in of the sternum and of the supra-clavicular spaces with each inspiration. *Contra-indicated.*—Auscultate posterior chest—if one lung seriously obstructed, tracheotomy is contra-indicated.

Instruments.—Scalpel, curved bistoury, tenaculum, two strabismus hooks, two or three catch-artery forceps, sponges, tube with tapes.

Chloroform may be given if time permit. Local anæsthesia by ether spray or by *Cocaine*. If no anæsthetic is used, wrap the child in a shawl to secure the limbs.

OPERATION.

Place the patient on a firm table in front of a good light; put a small, firm pillow (quart bottle rolled up in a towel will answer) under his neck to make the trachea prominent. The operator standing on the right side of the patient seizes the trachea between the thumb and finger of the left hand and fixes it until exposed by the incision. The incision should be free, extending from cricoid cartilage, from one and one-half to two or more inches downward, including integument and cellular tissue. It is to be deepened by successive cuts, or by hooking of tissues aside until the trachea is reached, the operator keeping *strictly in the median line*.

The trachea reached, four or five rings should be cleared by blunt hooks or handle of scalpel. The operator then hooks the tenaculum into the trachea at the highest point exposed, and making traction upward (now for the first time releasing the trachea from the grasp of his left hand), with the sharp bistoury cuts from *below upward* a sufficient extent of trachea to admit the canula. The wound may be held open with the blunt hooks until, by suction, the trachea is cleared of blood, mucus, or other foreign matters. The outer tube may then be inserted, and secured by tying tapes about the neck. The inner tube, slightly moistened with glycerine, may be put in place, the opening covered with several thicknesses of gauze, to filter the air, and the patient placed in bed. The tube should be large enough to permit quiet breathing.

During the operation the bleeding vessels may be seized with catch-forceps, which are allowed to fall toward the sides of the neck, making lateral traction. *Free* hæmorrhage should be checked by forcipressure, if time be limited, or torsion, if not, before trachea is opened. General oozing, from congestion, is best checked by opening of trachea relieving congestion, and by pressure of canula. Should thyroid isthmus appear in track of incision, hook upward or downward, or incise it.

After operation, the inner tube must be removed often, and thoroughly cleansed, the small bristle brushes used for feeding-bottles answering well; or, a stiff feather, properly trimmed.

If operation be made for foreign body, the trachea may be held open and the body extracted by suitable forceps; if this is not feasible, insert tube and wait.

HERNIA.

Reduction.—*Taxis.*—Anæsthetize the patient; place him in supine position with legs drawn up. *Resisting forces:* tightness of constricting ring, and swelling of strangulated viscus. Manipulate the hernia as nearly as possible in the line of axis of the ring—compress gently, but steadily, for a long time. While keeping up pressure with *one* hand, with finger and thumb of *other* manipulate the neck of the tumor back into the abdomen. Effort may be made to dilate the constriction with the finger at the internal abdominal ring. Pass the finger along the inguinal canal, carrying the integument before it until the constricting ring is felt, which is generally easily done; the finger is then insinuated into the opening, and if the band of opposing fibers does not readily yield, gentle pressure is made against the upper border of the ring until it is felt to give way, when a resort to gentle taxis will often be successful. When reduction occurs the bowel goes back suddenly, with a gurgle. Aspiration by No. 1 needle occasionally facilitates reduction after failure of gentle taxis. *Or*, give the patient twenty minims *Laudanum*, place him in a warm bath for twenty minutes, then between warm blankets, and try taxis.

Taxis should be gentle and thorough, and tried only once before resorting to operation.—*Adams*.

Unskillful taxis is a more frequent cause of death than the knife.—*Hamilton*.

Indications for Operation.—Symptoms of intestinal obstruction with an irreducible hernial protrusion.

HERNIOTOMY.

Instruments.—Scalpel, forceps, director, artery forceps, ligatures, retractors, hernia director, hernia knife, sponges, and accessories.

Shave the parts and empty the bladder. Patient anæsthetized, supine, thigh slightly abducted and rotated outward. *Note* positions of spine of pubes, Poupart's ligament, femoral artery. Make *incision* free enough to give access to stricture. Divide the coverings of the sac layer by layer, on director. Tie and cut superficial epigastric artery, if exposed. When sac is exposed reduce the hernia without opening, if possible. If the hernia be still irreducible, raise a small fold of the sac at the most dependent point and make a *small* opening, from which a little fluid will escape; introduce the director, and on this enlarge incision.

Division of Stricture.—If point of stricture is at *external* ring, make the incision *upward* and outward; if at *internal* ring, insinuate the left index finger, and pass the

finger nail under the stricture; pass the hernia knife flat, along the palmar surface of the finger, through the stricture, turn the edge of the knife *directly upward*, and cut a *mere notch* — one-eighth or one-quarter inch — by *pressure* of the knife, not by sawing motion. The hernia may now be returned by gentle manipulation.

If the gut be gangrenous or ulcerated, an artificial anus *must* be formed. If the omentum be inflamed, tie it with a stout ligature, and cut off the inflamed portion.

After reduction of the hernia, dress the wound aseptically, and apply compress and bandage. Provide for drainage.

AFTER-TREATMENT.

Rest in bed; liquid food till the bowels act; enema if the bowels do not act in ten days. Peritonitis, treat as from other causes.

TREATMENT OF WOUNDS.

(ANTISEPTIC METHOD—LISTERISM.)

1. Check hæmorrhage by torsion, acupressure, forcipressure, or catgut ligature, cut short.
2. Cleanse wound of all foreign bodies.
3. Irrigate with antiseptic solution—*Carbolic acid* (1:40), *Prince's Lotion*.
4. Provide drainage by carbolized horsehair, glass-silk, catgut, or perforated rubber tube.
5. Bring edges into exact apposition by carbolized silk or gut sutures.
6. Apply antiseptic dressing.

The *principles* of wound dressing are — (1) make wound *aseptic*, and (2) *preserve* it so.

The first principle may be carried out in operation wounds, by allowing nothing (fingers, instruments, etc.) to touch the parts unless previously disinfected by thorough washing in an antiseptic solution; the second, by use of some form of dressing which shall prevent access of unpurified air to the wound. Taking an amputation wound for illustration, the dressing may be efficiently made as follows: The wound surfaces having been thoroughly disinfected, drainage provided, and sutures adjusted, the line of the wound, and half an inch or more of the surface on each side, are covered with *Iodoform* dusted on thickly; over this is placed a strip of aseptic oiled silk, perforated; directly on the oiled silk is placed Lister's antiseptic gauze, eight layers wrung out of 1:40 *Carbolic lotion*, a layer of mackintosh, a top layer of dry gauze, and a bandage evenly and firmly applied. Drainage tubes are to be cut off flush with the skin, and secured, if in danger of slipping, by transfixing the end with a safety pin, at right angles to the wound.

In a large percentage of cases there will be no necessity for changing the first dressing for four or five days, when drainage tubes may be removed, and the dressings repeated.

In cases where wounds are not inflicted by the surgeon the same method of dressing is to be followed, after thoroughly disinfecting the wound by irrigation with *Carbolic* lotion (1:20 or 1:40). Always provide free drainage. Where there is tension on wound edges, relieve by deep sutures adjusted at some distance. Use deep sutures, preferably of silver wire, fastened by means of buttons at each end.

If, after removal of a tumor (*e.g.*, mammary gland) deep cavities exist under the flaps, apply pressure by pads of gauze, so adjusted as to keep the deep portions in exact apposition. Complete immobilization of wound necessary. Other *antiseptics* may be used — *Boracic*, or *Salicylic acid*; *Boro-glyceride*; *Naphthaline*; *Corrosive sublimate* (1:1000) or *Terebene*.

Under this, or any efficient antiseptic method, wounds heal by first intention, patients are free from fever, and cases pursue an *aseptic* course.—*Adams*.

CONCUSSION OF THE BRAIN.

DIAGNOSIS.— Three stages. (1) *Collapse*. Feeble pulse; feeble respiration; pallor of skin; cold extremities; dilated pupils. *Duration* of first stage, half an hour to three hours or more. (2) *Reaction* (vaso-motor paresis). Patient restless, moans, turns on his side, draws up his knees, vomits. Can be roused, and will answer questions. *Duration*—several hours. (3) *Sleepy Stage*. Pulse relaxed, full, irregular; skin warm, even hot; face flushed; pupils contracted. Patient overpowered with sleep, from which it is difficult to rouse him. *Duration*—a day to a week.

At any time the presence of symptoms of non-symmetrical paralysis—weakness of one limb, one side of the face, a single eye-muscle—indicates more than concussion, there is laceration or contusion. Emesis, or prolonged retention, has like significance.

PROGNOSIS.— Generally favorable.

TREATMENT.

Early, put the patient in a comfortable position, and maintain the heat of the body by warm blankets and other means. *Give no stimulants*. In the third stage, give a non-stimulating diet; keep the patient quiet, and attend to the bowels and bladder. Remedies, *Arnica* and *Opium*.

During *convalescence*, let the patient be *very quiet*, especially avoiding all mental effort.

COMPRESSION OF THE BRAIN.

DIAGNOSIS.—*Symptoms*: Complete insensibility; pupils, one or both, dilated; respiration labored, stertorous; pulse full and slow; skin warm and moist; sometimes strabismus; often hemiplegia; paralysis of sphincter ani; retention of urine.

PROGNOSIS.—Grave.

TREATMENT.

Depends upon cause, whether depressed bone, extravasated blood, inflammation, suppuration, or foreign body. Depressed bone calls for the use of the trephine (page 132); also, extravasation, when from injury and known to be accessible. In all cases—(1) dark room; (2) head high; (3) head shaved; (4) head cool; (5) low diet; (6) keep the bowels open, and watch the bladder.

DIFFERENTIAL DIAGNOSIS.

CONCUSSION.	COMPRESSION.
1. Comes on instantaneously, and passes off gradually.	1. Comes on gradually, and tends to get worse.
2. <i>Insensibility</i> , from which patient can be partly aroused.	2. <i>Insensibility</i> , total.
3. <i>Respiration</i> feeble, like that of a person in a faint condition.	3. <i>Respiration</i> stertorous, slow, and puffing.
4. <i>Pulse</i> weak, irregular, and frequent.	4. <i>Pulse</i> full, slow, and labored.
5. <i>Special senses</i> dulled.	5. <i>Special senses</i> paralyzed.
6. <i>Pupils</i> variable; usually sensitive to light.	6. <i>Pupils</i> , one, or generally both, widely dilated.
7. <i>Stomach</i> irritable; nausea or vomiting, with reaction.	7. <i>Stomach</i> insensitive.
8. <i>Bowels</i> relaxed, but sphincters not paralyzed.	8. <i>Bowels</i> torpid, but sphincters may be paralyzed.
9. <i>Bladder</i> can expel water.	9. <i>Bladder</i> paralyzed; consequent retention.

ABSCESS.

LEADING REMEDIES.

Hepar sulph.—To avert threatened suppuration; or, when suppuration is inevitable, tumor hard, hot, swollen, with throbbing pains.

Mercurius.—To avert suppuration. Glandular abscess, with nocturnal pain; tumor hard, shining, red, beating, and stinging.

Belladonna.—Bright redness of affected part, burning, throbbing pain, erysipelatous appearance.

Silica.—Fistulous openings, hard to heal; discharge thin and watery; abscess of bone; chronic abscess.

Calcarea carb.—After suppuration completed, to promote healing; strumous abscess.

Sulphur.—Profuse discharge; tendency to recur; emaciation; hectic; strumous abscesses.

SPECIAL REMEDIES.

China.—During excessive discharge.

Ledum.—From injuries or splinters.

Arsenicum.—Fetid, sanious discharge; or threatened gangrene.

Mezereum.—Abscess in fibrous or tendinous structure, or from abuse of *Mercury*.

Rhus tox.—Abscess of axillary or parotid glands; discharge thin and sanious.

GENERAL MEASURES.

Remove splinter or other foreign body which irritates; cover with poultice until "ripe" for lancing; open abscess *at most dependent point*, as soon as pus has formed. All abscesses of size require drainage after incision. Deep-seated abscess, in proximity to, or underlying, important structures, blood vessels, etc., may be opened by Hilton's method, *i.e.*, incise the skin, push the grooved director through the tissues toward the purulent collection; as soon as pus issues along the groove of the instrument, pass the dressing or polypus forceps; *open* them, and *withdraw*, thus making a free opening for the discharge, without endangering the vessels. Labarraque's Solution (*Liquor Sodæ Chlorinate*), one part to ten of water, is an excellent stimulant for old abscesses and sinuses.

Chronic abscesses should never be opened except under strict antiseptic precautions.

In whitlow, or abscess beneath periosteum, lance *clear to the bone*, early. In *thecal* abscess, lance in the *middle line*, to avoid digital arteries, which run along the sides of the finger.

Occasionally, cure of extensive abscess has followed repeated aspiration.—*Adams*.

LOCAL TREATMENT OF ULCERS.

HEALTHY.

Cleanliness; dress with *Calendula* lotion (ʒj to ʒij warm water); protect from external irritation.

UNHEALTHY.

Indolent.—Remove source of irritation; remove fungus granulations by knife or caustic *Argentum nit.*; *stimulate* the surface of the ulcer with *Carbolic ointment* (ʒj to ʒij *Vase-*

line), or powdered *Iodoform*. For œdema of edges, scarify, or use poultices. Apply *rubber bandage*. METHOD.—After the ulcer has been thoroughly cleansed (preferably by an antiseptic solution), if upon the leg, apply a bandage from the toes up, with just sufficient tightness for each turn to hold the one preceding *without* reverses; dress twice a day. Healthy action being established, treat as healthy ulcer, or, if the extent be large, hasten cicatrization by skin-grafting.

Irritable.—Keep part at *rest*; apply hot water by compress or irrigation; dress with *anodyne* poultices—*hops* or *Laudanum*; apply caustic thoroughly once; do not strap or bind.

Inflamed.—Keep the part at *rest* and *elevated*; dress with *antiseptic* poultices—*Carbolic*, *Charcoal*, *Sodium* and *Zinc chlorides*; avoid compression and caustics.

Sloughing.—Occurs in debilitated and starved cases. Treat constitutional condition; build up general health by good, nourishing food, and tonics. LOCAL.—Same as for inflamed, unless very active, when *Bromine* (pure *Bromine* one drachm, to eight ounces of water) may be employed.

REMEDIES.

Arsenicum.—Ulcer *inflamed*; raw-looking surface, which is *red* and *hot*, and bleeds on slightest touch; thin discharge, mixed with blood; edges of sore hard and irregular; intense burning pain.

Lachesis.—“Irritable” ulcer; *phagedenic* and *sloughing* ulcer; threatened varicose ulcer; large ulcers, tending to extend rapidly, surrounded by small ulcerations or pustules; surrounding skin presenting mottled, dark-blue, or purple appearance.

Sulphur.—Excessive itching, burning, gnawing pains; bleeds easily; secretion thick yellow, or thin fetid; margins elevated, and surrounded by pimples; considerable adjacent swelling, and discoloration of skin.

To begin the treatment of all chronic ulcers.—*Jahr*.

Mercurius.—Deep ulcer; tendency to spread; discharge thin and offensive.

Belladonna.—The surrounding skin is the seat of chronic inflammation, of erysipelatous appearance.

Kali bi.—Deep ulcer of leg, with hard base and overhanging edge.

Mezereum.—“Mercurio-syphilitic ulcer of lower extremity.”—*Dunham*.

Sanguinaria.—Old, indolent ulcers, with callous edges, and ichorous discharge.

Hamamelis.—Varicose ulcers.

Phytolacca.—Ulcerations of mucous membranes.

Scrofulous Ulcers.—*Calcareo carb.*, *Silica*, *Sulphur*.

TREATMENT OF GANGRENE.

Traumatic.—In lacerated and contused wounds of extremities; bones badly crushed; large vessels torn; limb generally disorganized; if gangrene feared, *amputation* should at once be practiced.

In case of gangrene of an extremity, after attempt being made to save it, amputate at once, and in all varieties of traumatic gangrene where the limits of the disease can be well defined, and the *whole extremity* is involved. *Superficial sloughs* are not to be taken for *entire* destruction of the limb. The extent of destruction of tissue being small, bring about speedy separation of slough by poultices and hot dressings. Remove dead pieces, as they loosen, with seissors and forceps. During sloughing, use locally *antiseptic poultices*, and *carbolyzed* hot-water dressings. During local reaction, *no pressure* is to be used on injured part.

Gangrene from extreme *heat, cold, or escharotic*, treat on expectant plan till the line of demarcation is formed; then amputate, if entire thickness of the limb is involved.

Gangrene from infiltration of urine *in perineo*, immediately make free incisions to relieve tension, and give free vent to collections.

Gangrene from arrested circulation, after ligation of arterial trunk, apply warmth by cotton, etc., and keep up patient's strength until collateral circulation is established.

CARBUNCLE.

LEADING REMEDIES.

Arsenicum.—Malignant carbuncle; great prostration and restlessness; small, irregular pulse; cold sweats; diarrhoea and fever.

Bryonia.—“Hastens the process of suppuration, reducing the period many days.”—*Jahr*.

Belladonna.—Smooth, bright-red swelling, tense skin.

Apis.—For extension of erysipelatous swelling.

Lachesis.—Parts look purplish; low, inflammatory condition; blood-poisoning.

Arnica.—In repeated doses, early, sometimes disperses.

Silica.—After suppuration, to check excessive ulceration, and promote healthy granulation.

GENERAL MEASURES.

A commencing carbuncle may be successfully *aborted* by injecting into its center, by hypodermic syringe, several drops of *pure Carbolic acid*.

Iodine, locally, has dispersed. Also lime water and *Camphor*. Early *strapping* beneficial; encircle with *tightly*

applied, broad, adhesive straps, which will draw the edges together; remove straps daily after the discharge has begun, and cleanse the surface; keep well *poulticed*; not necessary to incise unless the tension is extreme. After suppuration is established, dress with *Carbolic ac.* and *Glycerine*; if *gangrene* threaten, dress with powdered *charcoal*, frequently renewed — every three to six hours.

Never use the knife in carbuncle complicating diabetes.

DISSECTION WOUNDS.

Suck the wound immediately, and apply *Carbolic acid*, or cauterize with *Nitrate of silver*. If the wound becomes inflamed, dress with hot poultices; internally, *Arsenicum*; if great prostration, give *Carbonate of Ammonia*.

INSECT STINGS.

For stings of bee, mosquito, wasp, etc., apply *Aqua ammonia*, or tincture of *Ledum pal*; moist clay poultice, if nothing else at hand; remove sting when visible.

SNAKE BITES.

Tie a broad ligature tightly about the limb, above the wound, so as to check circulation; suck the wound, and cauterize with *Nitrate of silver*, strong *Carbolic acid*, or a nail heated red-hot.

Apply ligature, and, as soon as possible, inject with hypodermic syringe a solution of *Permanganate of potash* (1:100), as nearly in line of penetration of the serpent's tooth as possible.

The Emperor of Brazil has recently bestowed on Dr. Lacerdo \$20,000, for his discovery of this antidote.

Stimulate by injecting *Ammonia* into the veins, or by its internal administration. Keep the patient quiet, and conserve the strength. Artificial respiration must be employed if the breathing fall to ten per minute.

The ligature must be occasionally slackened, that the poison may but *slowly* enter the system, and the limb not suffer from complete stoppage of circulation for too long a time.

SPRAIN.

Give the part absolute rest; immerse immediately in hot water, until pain and swelling are reduced; afterward, dress with cloth wrung out of lotion of *Rhus*, *Aconite*, *Arnica*, or *Hypericum*, and covered with oil silk. After the pain has been lessened by immersion in hot water, envelop the part in *absorbent* cotton, and apply a bandage firmly, exerting through the cotton uniform elastic compression of the parts.

- Arnica.**—Contused appearance.
Rhus.—When tendons are involved.
Aconite.—Heat, redness, and swelling.
Hypericum.—Nerves involved, or lacerated.

HYDROPHOBIA.

Belladonna.—As soon as a person has been bitten, administer *Belladonna* in a low dilution, and keep him under its influence for at least six weeks. Also administer it if the characteristic *convulsions* set in at any time, with great burning and accumulation of frothy mucus in the throat, constricting sensation when attempting to swallow, redness and bloatedness of the face, foaming at the mouth, and tetanic convulsions.

It is only in the largest quantities that its remedial power has been most frequently observed.—*Hughes*.

Stramonium.—Convulsions attended by frightful dreams; agitated sleep; sudden shrieks; insensible and dilated pupils; disposition to bite and tear things with the teeth.

Reputed a specific for the disease in China.—*Hughes*.

Scutellaria.—Nightly restlessness; frightful dreams; rapid and unequal action of the heart, with pain, tremulousness, and twitching of the muscles.

Has been found very successful in many cases, both as preventive and curative.—*Laurie*.

GENERAL MEASURES.

Immediately suck the wound (do not let it come in contact with an *abraded* surface of the mouth), wash it out with a stream of warm water and apply freely *pure Carbolic acid*; or, *actual cautery* may be applied. Give *Belladonna* treatment.

IN ATTACK.—Vapor bath, or Turkish bath, temperature 107° F., said to have been successfully used. Give the patient bits of ice.

BURNS AND SCALDS.

CLASSIFICATION.

FIRST DEGREE.—Hyperæmia; erythema; irritation or inflammation of the skin, without vesicles.

SECOND DEGREE.—Vesication; inflammation of the skin; formation of vesicles and bullæ.

THIRD DEGREE.—Eschars; gangrene, superficial or deep; involving the skin or any other subcutaneous tissues; carbonization of a part, or of the entire body.

PROGNOSIS.—If one-half, or even one-third, of the surface is burned or scalded, death is inevitable. In other

cases, result depends on location, intensity of heat, nature of medium, age, temperament, and constitution of patient.

TREATMENT.

LOCAL.—Apply immediately one of the following:

Carbolized Vaseline (*Carbolic acid* five per cent.).

Carbolized Olive Oil (11 parts oil to 1 part liquid *Carbolic ac.*).

Flour and lard, equal parts worked together.

White lead paint. Equal parts *Linseed oil* and *Lime water*.

Bicarbonate of soda. Fine wood charcoal.

Dress to exclude air and keep up warmth of the part.

Probably no dressing equals the *carbolized Vaseline*. Use that which can be most quickly obtained. Spread on a *thick* layer, cover with gauze and cotton-wadding, and bind lightly. Leave first dressing on as long as possible—until offensive nature of discharge or discomfort demand its removal. Dress in such a way as to facilitate future dressings bit by bit. Do not expose too large a surface at once. Blisters should be pricked, and contents evacuated, leaving the skin as a protective covering. In dressing, irrigate with *carbolized water*, a drachm to the pint.

Iodoform, sprinkled on, relieves the pain; put other dressing over it.

In *extensive* burns or scalds, use *continuous tepid bath*, 90° to 100° F. In burns or scalds of the extremities, immersion of the part in a tepid bath gives great relief.

During cicatrization, prevent deformity by position, attained by splints and mechanical appliances. Employ skin-grafting to promote healing of ulcers.

GENERAL.—Treat *shock* by artificial warmth, *rest*, and repeated doses of *Camphor*. For *depression*, *Ammonia* as a stimulant. In exhaustion from profuse suppuration, give nourishing food.

Rhus.—Burns of first and second degree.

Kali bi.—Indications of ulceration of duodenum.

Cantharis.—Vesication; scanty and high-colored urine.

HÆMORRHAGE.

Ligature.—Cut down upon the bleeding point, and tie above and below the wound. In case this would involve a large and deep incision, tie “in continuity.” *Materials*: silk, hemp, catgut. *Instruments*: forceps, retractors, directors, artery forceps, tenaculum (sometimes, aneurism needle). Secure the vessel, tie with reef knot, and, unless catgut used, one end of the ligature must be left hanging out of the wound. The ligature must be smooth, round, strong, and well waxed.

Torsion.—Draw out the vessel and make three or four sharp rotations of forceps. In large arteries continue the rotation till sense of resistance has ceased, but do not twist off the ends. In small arteries the number of rotations is of no importance, and ends may be twisted off or not.

Acupressure.—Compress vessel between needle and loop of wire, like the common hare-lip suture. In arteries of medium size, the needle may be removed in four hours. Adapted to *scalp* wounds, and when *varicose veins* burst.

Cautery.—For hemorrhage from the neck of the womb after operation.

Compression.—By tourniquet, Spanish windlass, or digital.

CAROTID.—Press along inner edge and lower half of sterno-mastoid muscle.

SUBCLAVIAN.—Push firmly with the thumb in the subclavian triangle behind the sterno-mastoid.

BRACHIAL.—Inner border of coraco-brachialis and biceps.

FEMORAL.—Under Poupart's ligament, midway between anterior superior spinous process of the ileum and the pubes.

ABDOMINAL AORTA.—Short distance above and to the left of the umbilicus.

In wounds of the palm, or where many inosculating vessels are injured, pack the wound tightly with picked lint or other available substance, and apply a firm bandage. Put the limb upon a splint to insure perfect rest.

Flexion.—In wounds *below the shoulder*, put arm-pad or roll high up in the axilla, and bind the arm to the side. In wound of *palmar arch*, put compress in bend of elbow, flex the forearm on the arm, and pronate the hand. In hemorrhage from *plantar* vessels, put a pad in the popliteal space, flex the leg on the thigh, and the thigh on the abdomen. Or, hang the leg, in the bend of the knee, over a sharp chair back.

Styptics.—Ice, applied directly to bleeding surface. *Persulphate of iron* (Monsel's solution); *Tannic acid*, *Gallic acid*, *Malico*, *Alum*. Water 120° F.

GENERAL MEASURES.

For faintness and weakness caused by loss of blood—horizontal posture; absolute rest; *Ammonia*; *Ether*; wine. Esmarch's bandage, to drive blood from limbs to vital centers. Transfusion.

EPISTAXIS.

When slight, apply pressure to cheeks, at their junction with the *alæ nasi*; use nasal douche of hot water, 110° F.;

ice to the nape of neck; use *Tannin* as snuff; use styptics in solution — *Alum*, *Iron persulphate*. Enjoin quiet on the part of the patient; keep the neck straight.

Plug the nostril if the hæmorrhage is severe; pass a loop of double thread, by means of a catheter or Bellocq's canula, along the floor of the nose to the pharynx, seize the loop and fasten it to a plug of lint or cotton already attached to a string, which is brought out of the mouth and retained for withdrawal. By means of the double thread in the nose, draw the plug into the posterior nares, and tie the ends of the thread over a plug inserted into the nostril in front. Remove by the string through the mouth when no longer needed.

URETHRAL HÆMORRHAGE.

Locally, use cold applications, hot injections, *Hamamelis*, or, introduce catheter, and apply compression by means of a bandage. If from an external, longitudinal wound, make close coaptation by fine sutures, and draw the urine with a small catheter four or five times a day. In transverse wound, after hæmorrhage is checked, introduce sound at intervals during the healing process, to prevent stricture. In hæmorrhage into tissues about deep urethra, make free incisions to relieve tension, use antiseptic irrigation, and keep urethra patent by use of catheter or sound.

RECTAL HÆMORRHAGE.

When beyond control by use of ordinary remedies, if from a vessel within reach, apply ligature; if general and styptics and hot water fail, use tampon. To plug properly, take cup-shaped sponge or wad of cotton, pass a stout double ligature through the middle, and pass this into the bowel beyond the source of the hæmorrhage. Pack the rectum below with pledgets of cotton, and then draw threads tight, and fasten them over a compress of cotton placed externally, thus making even pressure in all directions. A stiff catheter or tube may be placed before plugging, to allow escape of flatus.

UTERINE HÆMORRHAGE.

Method of plugging vagina.—Put patient in Sims' position; with left forefinger, or Sims' speculum, retract posterior vaginal wall; with pledgets of cotton, or free end of roller bandage, pack vagina *posteriorly* to cervix, then *anteriorly*, then *centrally*, until firmly filled by plug, taking care not to obstruct urethra. After sufficient time has elapsed, remove piecemeal, patient in same position.

Or, introduce large, moist sponge through a speculum. Do not let tampon remain without change more than three or four hours.

VENESECTIION.

Instruments.—Bleeding-tape, or bandage; bowl; lancet; pad; sponge and water.

Patient recumbent. Apply tape to middle of upper arm, tight enough to congest veins, but not to affect pulse. Hang the arm down a little while; then choose the spot, usually the *median basilic vein* (look out for brachial artery); pass the lancet gently and obliquely into the vein, and enlarge the opening without deepening the incision. If necessary, make the patient work his hand, opening and shutting it; or grasp some small object. When sufficient blood has been withdrawn, remove the bandage from the arm, apply a pad to the wound, and bandage it by figure-of-eight. Wear the arm in a sling for several days.

SHOCK.

Loosen everything about the neck and chest that can impede the respiration; body recumbent, *head low*. *Maintain temperature* of body—warm room; warm blankets; hot bottles to the extremities, between the thighs, and in the axillæ; *hot compress* over cardiac region; warm affusion to head; frictions. If much blood has been lost, and the vaso-motor mechanism is not paralyzed, employ *transfusion*. *Stimulants*, not too freely; brandy, *Ammonia*, *Ether*. Do not pour fluids down a patient who cannot swallow. *Ether* has been used with great success. Inject, hypodermically, thirty minims every five or ten minutes until the patient is able to swallow, then substitute brandy and *Ammonia*, by the mouth. In the absence of *Ether*, employ *intra-venous* injection of *Ammonia*, ten minims of liquid *Ammonia fortis*—degree of dilution not material.

Digitalis.—Ten minims, hypodermically, as a cardiac stimulant, very beneficial.

If there is a mangled limb to come off, and shock is slight, give *Ether*, and operate. If the shock is so grave that reaction is doubtful, wait several hours till the pulse begins to regain strength. If the temperature is below 96° F., do not operate.

When *reaction* sets in, give warm, nourishing, liquid food, small quantities, frequently repeated—coffee and scalded milk, equal parts; milk, beef tea, soup.

ADMINISTRATION OF ANÆSTHETICS.

A. C. E. Mixture.

Alcohol (<i>by measure</i>),	- - - - -	1 part;
Chloroform	“ - - - - -	2 parts;
Ether	“ - - - - -	3 parts.

Use much as you would *Chloroform*. Make it afresh just before it is required for use. This is the favorite anæsthetic at Guy's, and at most of the London hospitals. It is almost as safe as *Ether*, while being free from many of the latter's objectionable qualities.

Chloroform.—Commence gently; limit dose to smallest quantity capable of producing insensibility—fifteen drops on a towel to begin with; permit *free access* of air.

Ether.—Two drachms to begin; *no air*; push vigorously, especially in the stage of excitement.

Precautions.—Do not push an anæsthetic too much at first; watch the quantity used; allow plenty of air with *Chloroform*; have provision for admitting a free supply of fresh air; carefully watch the pulse and *respiration*,—especially the latter; have dressing forceps ready to grasp the tongue. Do not let a *flame* come near *Ether* vapor.

TREATMENT OF DANGEROUS SYMPTOMS.

Give *fresh air*; pull the tongue well forward; if any difficulty, the tongue may be drawn from off the glottis by placing the thumbs alongside of the nose, and the index fingers behind the ascending ramus of the lower jaw, and drawing it forward; clear the throat of blood, or vomited matter; hot affusions to the head; invert the patient; artificial respiration; inhalations of *Nitrite amyl.* *Galvanism*—One pole on the throat, near the phrenic nerve, the other at the pit of the stomach; or, through the skin at the sides of the nose.

LOCAL ANÆSTHESIA.

Cocaine.—A solution of the *Hydrochlorate of cocaine* up to five per cent. can be made without the addition of an acid. The solution is always cloudy, but when filtered becomes as clear as distilled water. The addition of an acid *is to be avoided*, as even a very small quantity causes a strong burning sensation.

For operations on the eye use a two-per-cent. solution. With the patient's head thrown back a little, depress the

lower lid while the patient looks up. Into the *cul de sac* thus formed, instill two minims of the solution. Now have the patient alternately look down and up two or three times, when the cornea will become covered with the solution. For the removal of foreign bodies, one such instillation is generally sufficient, anæsthesia being sufficiently complete at the end of from three to five minutes.

If more complete anæsthesia is desired, repeat this instillation *once or twice*, at intervals of from three to five minutes. Three instillations will produce anæsthesia lasting for about twenty minutes, sufficient for almost any operation.

Use in almost all operations on the eye — removal of foreign bodies, canterization of corneal ulcers, puncture of cornea for paracentesis, tattooing cicatrices, iridectomy, operation for pterygium, and even for removal of cataract.

In many minor surgical operations, also, it is all-sufficient. Inject under the skin four minims of a four-per-cent. solution, and repeat as necessary. Avoid producing constitutional symptoms.

Local anæsthesia may also be produced by the application of two parts of crushed ice to one part of salt, in a gauze bag. Do not freeze the part. Ether spray is also effective.

HARE-LIP.

Best time to operate, third to fifth month of infancy. Contra-indicated — during dentition or ill health. *Chloroform* unnecessary. Apply small bag of pounded ice and salt, or inject a solution of *Cocaine* into the edges of the fissure, till local anæsthesia is induced. Child held in assistant's lap. Secure the limbs by rolling him lightly but firmly in a shawl. Assistant to check hæmorrhage by holding each side of the upper lip between finger and thumb. Begin by separating, with the knife, the two sides of the lip from the jaw subjacent, unless the former structures be already very free. Then pare the edges of the cleft. Remove enough tissue, especially from the apex of the cleft, and the junction of the cleft with the edge of the lips. Coapt the edges, insert two "hare-lip" pins; enter and exit one-quarter inch from the fissure; pass deeply, nearly reaching mucous membrane. The lower one secures the coronary artery. Secure with *hare-lip* suture. Interrupted wire suture at red border of lip. Sharp ends of pins nipped off. Pieces of lint placed beneath the ends of the pins. Strapping, broad at ends and narrow in middle, brought across lids. All pins must be removed on third day, very gently, lips being well supported at the time, and strapped immediately afterward. Instead of pins, the interrupted suture of wire, aseptic silk, or gut, may be used.

NÆVUS.

Capillary nævi may be successfully treated by successive paintings with liquid *Carbolic acid*, *Nitric acid*, *Lunar caustic*, or by puncture at various points with a hot needle. More extensive forms may be treated by (1) *compression*; (2) *ligature*, which should be subcutaneous, to avoid scar; (3) *excision*; (4) by ligature of vessel of supply.

Injections into nævi should never be employed.

INTUSSUSCEPTION.

Plumbum.—Colic and fecal vomiting.

Opium.—Meteorism, and stercoraceous vomiting.

Aconite, Belladonna.—To obviate inflammation.

Nux v.—To correct irregular and excessive peristalsis.

GENERAL TREATMENT.

Early in the Attack.—Place the patient on his back, hips elevated, shoulders low; introduce a long tube into the rectum, passing it as high up as possible, and *slowly* inject *large quantities* of warm water or olive oil. As the fluid is coming away, manipulate the abdomen with the hands, so as to move coils of intestines. Repeat the entire process several times, if necessary. Sometimes it is well to anesthetize the patient preparatory to operation. Also try inverting the patient. In children, inflate the bowel with air until the abdomen is much distended. Keep stimulants at hand, as syncope sometimes occurs.

In cases where the above measures fail, and the diagnosis of obstruction is clearly made, perform laparotomy with antiseptic precautions. Operation, preferably in median line, consists in exposing peritoneum by incision of three to five inches, checking all hæmorrhage, opening peritoneum, searching for obstruction, and relieving it according to its nature.

THORACENTESIS.

Indications.—Amount of effusion great, with dyspnœa; old effusion, which remains stationary.

OPERATION.

Use aspirator; needle moistened with oil; slight preliminary incision. Introduce near the axillary line, in the *fifth* intercostal space on the *left* side, the *fourth* on the right, or *seventh*, near the angle of the scapula, posteriorly. Insinuate the needle with a twisting motion, near the upper border of the lowermost rib of the two. Then plunge the needle smartly through the pleura, turn the cock of the aspirator, and collect the fluid.

Dangers.—Wounding intercostal vessels, lung, or diaphragm; rupture of pleura or capillaries by excessive suction with aspirator; admission of air.

PARACENTESIS ABDOMINIS.

Indications.—Called for if the amount of effusion is so great as to seriously embarrass respiration or the heart's action.

OPERATION.

Make ink-mark exactly in median line, midway between umbilicus and pubes. Turn the patient on his side, near the edge of the bed. Bladder must be empty. Ascertain by percussion the presence of fluid at the spot to be pierced. Apply a broad flannel belt, or a sheet, around the abdomen, the ends crossed behind, and held by an assistant, who gradually draws it tight as the fluid is withdrawn. Tap through a hole cut in the cloth at the proper point. Incise the skin at point selected, and introduce the trocar. Draw off the fluid *slowly*. When all is out, seal the wound with plaster, and pin the band tightly around the abdomen.

Dangers.—(1) Hæmorrhage, from not keeping to middle line; (2) wound of bladder, from not emptying it; (3) wound of bowel, from not tapping in a thoroughly dull spot, or from plunging the trocar too deeply; (4) fainting.

PNEUMATIC ASPIRATION

May be practiced in any part of the body, and is a safe procedure as long as only the fine needle (No. 1) is used. Aspiration with the larger needles is to be practiced with the same caution as tapping with the trocar, the risk of aspiration equalling that of tapping when the larger needles are used.

HÆMORRHOIDS.

Internal.—Of *capillary* variety—*viz.*: elevated thickenings of the mucous membrane—best treated by application through a speculum, with a wooden spatula or a glass rod, of pure *Nitric acid*. Forceful dilatation of sphincter occasionally cures by relief to circulation during partial paralysis of sphincter following dilatation. Internal hæmorrhoids, more or less *pendulous*, are best treated by (1) *Injection* of mixture of equal parts of *Glycerine* and *Carbolic acid*. To do this safely, clamp the base of the pile with the forceps, so as to interrupt the circulation; with hypodermic syringe, charged with the mixture, insert the needle into the substance of the hæmorrhoid, and inject *M. v ad x*. Repeat

the injection at intervals of three or four days until the tumors shrivel and slough away; (2) *Ligature*. Patient under *Ether*; dilate the sphincter, forcibly seize hæmorrhoid with forceps; with curved scissors dissect the hæmorrhoid slightly from the mucous membrane from below upward, thus avoiding vessels which always enter a pile from above; transfix the pile with a threaded needle, and tie firmly on each side; repeat the process on all internal piles. Confine the patient strictly to bed for a week. Ligatures come away generally in four to five days. Patient should take no exercise of amount for ten to fourteen days.

External hæmorrhoids, when seen early, *i.e.*, during first forty-eight hours, should be *incised*, and the clot of extravasated blood, which gives pain by causing tension of tissues, turned out. Always incise in line radiating from anal center. If ancient, and source of annoyance, remove by scissors, clipping away tab of thickened integument in line radiating from anal center.

ANAL FISSURE.

When productive of slight degree of suffering, may be treated by application of *Iodoform*, in powder or suppository. A single application of *Nitrate of silver* to a fissure will sometimes suffice. Severe forms only amenable to treatment by incision or forcible dilatation.

To incise, expose the part thoroughly and cut through the base of the fissure deeply enough to divide the superficial fibers of the sphincter muscle directly under it, then apply *Iodoform*, cotton pad, and T bandage.

To dilate, put the patient under *Ether*, insert the thumbs into the rectum back to back, and stretch the sphincter until the thumbs touch the *tuber ischii*, or the sphincter is thoroughly relaxed. Dress as above.

RECTAL STRICTURE.

Gradual dilatation with bougies at intervals of three or four days, safest but slowest method. If the stricture be thin and bridle-like, nick the edge of constriction at three or four points in its circumference, and pass a bougie.

Posterior rectotomy to be employed if stricture irritable and of small caliber. Patient under *Ether*; with straight, probe-pointed knife, cut through the stricture and sphincter toward the coccyx, keeping the incision *strictly* in the median line. Keep the patient recumbent, pack the wound with antiseptic cotton, and, as it heals, pass a bougie to preserve the caliber of the rectum.

RECTAL FISTULA.

Three Varieties—result of abscess in submucous tissue of rectum—internal, external, and complete.

INTERNAL should be made complete by passing a probe, bent into hook shape, into rectal opening and making it project the integument, cut down on the end of the probe, and operate as for complete fistula.

EXTERNAL should be made complete by passing director into external opening to the thinnest portion of the rectal wall, determined by the finger in the rectum, and forcing the director through into the rectum.

COMPLETE fistula may be treated by incision on director, or, in timid patients, by elastic ligature. To *incise*, put the patient under *Ether*, pass a grooved director through fistula, bring the point out at the anus, and cut all overlying tissue; slit up sinuses leading into the fistule, pack the wound with oakum for first forty-eight hours, and then dress with *Iodoform*, keeping the patient recumbent until the wound is fairly filled by granulations.

To *ligature*, take a solid rubber cord, $\frac{1}{8}$ inch in diameter, pass a silk cord through the fistula by means of an eyed probe; draw the rubber cord through double, pull it tense, and tie tightly, overtying the rubber knot with silk to prevent slipping. Under this method the patient may move about.

COCCYGO DINIA.

If obstinate, divide subcutaneously all muscular and ligamentous structures from the borders and tip of the coccyx. If the coccyx be luxated and displaced, or carious, remove it.

RETENTION OF URINE.

From Stricture.—Put the patient in a warm bath to relax spasm; pass a small catheter, or filiform bougie, which use as a guide for tunneled catheter. If filiform bougie or small catheter passes, tie in for continuous dilatation, replacing it by larger size in twenty-four hours. If stricture is impassable, relieve the bladder two or three times in twenty-four hours by aspiration, supra-pubic. After two or three days, attempt the passage of instrument again. If the instrument cannot be passed, and fistulous opening exist, perineal section should be performed.

From Enlarged Prostate.—Pass a soft rubber catheter, Mercier's elbowed catheter, or over-curved gum-elastic catheter. If retention has existed for some time, do not empty the bladder at once, but at the third or fourth catheter.

terization, after which keep the bladder clear of residual urine. When the bladder is completely closed by hypertrophy of prostate *plus* inflammation, supra-pubic aspiration may be practiced twice or thrice daily, until the catheter may be passed.

If catheterism impossible, supra-pubic puncture and introduction of permanent tube relieves retention, and, when done early enough, is followed by *subsidence of prostatic overgrowth*.—Adams.

CIRCUMCISION.

Draw the foreskin well forward and hold it by compression between the blades of forceps applied where section is deemed best; cut off the portion included in the forceps; split up the mucous membrane to the corona, turn it back, trim the edges, and unite them to the skin by numerous fine sutures of catgut. In infants sutures are unnecessary. Dress by enveloping the part in a strip of sheet lint, which should be kept moist with 1:40 *Carbolic* lotion. Treat hæmorrhage by torsion if not spontaneously checked. Local anæsthesia may be produced prior to operating by injecting a four-per-cent. solution of *Cocaine*. Inject four minims at four different points—on the dorsum, near the frænum, and at each side—in all, sixteen minims. In ten or fifteen minutes anæsthesia will be complete.

GANGLION.

Rupture it by placing the patient's wrist on your knee, steady it with your fingers while you squeeze the ganglion, with the ends of both your thumbs, against the ridge of bone beneath. Other methods failing, employ subcutaneous puncture, and follow either method by pressure with pad and bandage.

BUNION.

Remove pressure of boot, which is always the *cause*; restore toe to natural position by mechanical contrivance. Use corn plaster, soap plaster, arnica plaster. If it discharge, use stimulating dressings. When inflamed, poultices or fomentations.

CORNS.

Soak the foot in a warm bath half an hour or an hour; extract the hard head with the finger nail, or a blunt instrument; dress with *Arnica* lotion; wear during the day arnica plaster, and felt, with a hole in the center. Repeat this several days, and wear *easy shoes*, and there will be no more return.

IN-GROWING TOE NAIL.

With the point of a penknife insinuate a bit of cotton beneath the side of the nail, and between the edge of the flesh and the overlapping nail. Poultice and rest if much inflammation.

If scraping nail down the middle fails to relieve, pare away overlapping flesh—remove underlying portion of nail; or, these measures failing, remove entire nail by avulsion under anæsthetic.

THE VENEREAL.

SYPHILIS.

Definition.—A specific, infectious disease, having a period of incubation, and characterized by the appearance of a chancre, then by eruptions on the skin and mucous membranes, subsequently by chronic inflammations of the cellulo-vascular tissues and the bones, and finally by small tumors, or *gummata*.

One attack affords protection against a second. The initial lesion is always a chancre, whether the source of infection be a chancre or a secondary lesion. A perfect recovery from syphilis is possible (*Keyes*).

Initial Lesion.—Varies. May be hard, desquamating papule, a raw erosion, or a superficial ulcer. *Indurated chancre*—generally solitary, shallow; borders adherent and sloping; *base indurated*: floor grayish; the secretion thin, scanty, non-purulent. It is indolent, and generally painless.

Period of Incubation.—A chancre (if not modified by treatment) will usually be followed by secondary symptoms within fifty days, and always within six months. It may be as short as ten days.

PRIMARY STAGE.

LEADING REMEDIES.

Mercurius sol.—This is the only remedy worthy of confidence in the treatment of recent, uncomplicated chancre. Chancre with *red* edges, lardaceous bottom, painful and readily bleeding; indurated base and margin.

DOSE.—1x to 6x trituration, a grain night and morning.

Stands in the front rank.—*Franklin*.

Enjoys universal confidence.—*Hughes*.

Only remedy for the uncomplicated forms.—*Baehr*.

Mercurius cor.—For phagedænic chancre; ulcer secreting thin, ichorous pus. Secondary symptoms make early appearance.

Mercurius iod.—Painless chancres; glandular system largely involved; inguinal glands large, swollen, but not inclined to suppurate.

Arsenicum.—*Gangrenous* chancre. Ulcers with florid, unhealthy granulations; or, secreting a watery, corrosive, offensive fluid.

Only efficient remedy. *Baehr.*

In *gangrenous*, never fails.—*Jahr.*

Nitric ac.—For chancre of some weeks' standing that has been treated with large doses of *Mercury*. Ulcer bleeds easily and profusely; pale, flabby, prominent granulations; fungous growths; corrosive discharge.

Arsenicum iod.—For swelling of inguinal and axillary glands, threatening suppuration.

Excels all other remedies in the rapid cure of venereal bubo.—*H Noah Martin.*

BUBO.

Requires the same treatment as the chancre from which it proceeds. For acute bubo, *Mercurius sol.*; for indolent bubo, *Mercurius iod.*

LOCAL.—Observe *strict cleanliness* of the parts. To primary sore, apply simple lint, soaked in cold or tepid *Catenduta* lotion, renewed every three or four hours. *Chloral hydrate* solution, twenty grains to ℥j *Aqua*, hastens healing process. If discharge fetid, sprinkle with powdered *Chlorate of potash*, and cover with wet compress; renew frequently.

For *sloughy ulcers*, apply slightly caustic solution *Nitric acid*, or *Carbolic acid*.

GENERAL.—Avoid stimulants, excitement, over-exertion, and excesses of all kinds. Let the surroundings be the most favorable, hygienically, that can be procured. Have fresh air, moderate out-door exercise, and a plain diet. Encourage in the patient hopes of ultimate recovery. Frequent bathing of the skin is very beneficial.

TABLE GIVING USUAL PERIOD OF DEVELOPMENT OF LESIONS.

LESION.	USUAL NO. DAYS.	MAY DELAY AS LONG AS
1. Roseola	25 to 45	12 months.
2. Lichen	28 to 65	12 "
3. Mucous patches	30 to 70	18 "
4. See'd aff. fauces	50 to 70	18 "
5. Vesic. erup	55 to 90	6 "
6. Pustular	45 to 80	4 "
7. Rupia	7 ms. to 2 yrs	4 "
8. Iritis	2 to 6 months	1 year.
9. Sarcocoele	6 to 12 "	3 years.
10. Periostitis	4 to 6 "	2 "
11. Tuberc. erup.	3 to 5 years	2 "
12. Serpig. erup.	3 to 5 "	20 "
13. Gummy tumors	4 to 6 "	15 "
14. Onychia	3 to 6 "	22 "
15. Exostosis	2 to 6 "	20 "
16. Ostitis	2 to 4 "	41 "
17. Destruct. vel. pal	2 to 4 "	20 "

No one who has had syphilis should marry until he has been free from all symptoms for a period of at least three years.

CHANCRE.	CHANCROID.
1. A <i>general</i> blood-disease.	1. A <i>local</i> tissue-disease.
2. From inoculation with <i>syphilitic virus</i> .	2. From inoculation with <i>chancreoidal virus</i> .
3. Incubation, ten to sixty days, or more.	3. Incubation, none.
4. Auto-inoculation <i>impossible</i> .	4. Auto-inoculation <i>always possible</i> .
5. Lesion, usually an excoriation or <i>indurated</i> shallow ulcer.	5. Lesion, a rapidly spreading, <i>soft</i> ulcer.
6. Number, usually single.	6. Number, often multiple.
7. Secretion scanty, serous, sanguinolent.	7. Secretion, creamy, free.
8. Edges slanting, adherent.	8. Edges, perpendicular or undetermined.
9. Generally painless.	9. Often painful.
10. Phagedæna very rare.	10. Phagedæna not uncommon.
11. Bubo invariable; seldom suppurates.	11. Bubo in about one-third the cases; often suppurates.
12. Second attack <i>very rare</i> .	12. Second attack possible.
13. Local treatment unimportant.	13. Local treatment highly important.

SECONDARY AND TERTIARY.

LEADING REMEDIES.

Mercurius.—Feverishness; rash; sore throat; rheumatoid pains, aggravated by rest and the warmth of the bed; erythematous, papular, and squamous eruptions; *superficial* ulcers in the throat; iritis; fauces and tonsils swollen, inflamed, and ulcerated; emaciation, with slow, hectic fever.

Kali hyd.—For secondary and tertiary forms, particularly in those who have been over-dosed with *Mercury*. Nodes; gummata; erythema; tubercular skin eruptions; ulcers on tonsils; periostitis; coryza; iritis; ulceration of nose, mouth, or throat, with corrosive, burning discharge; Pain in nodes quickly relieved, and the nodes soon disappear. **DOSE.**—Give one to five grains of the crude drug *ter die*: in obstinate cases, fifteen to twenty grains *ter die*.

We have nothing to take the place of the *Iodide of potash* in tertiary syphilis.—*Hughes*.

No remedy surpasses this as an antidote to the syphilitic poison in the secondary, and especially in the tertiary form of the disease.—*Franklin*.

Aurum.—Syphilophobia; ozæna, with caries of nasal and facial bones; ulcers of nose and mouth, with fetid discharge; nodes of cranial bones; sarcocele; lupus; syphilitic rheumatism; suicidal melancholia.

Covers nearly the whole field of the tertiary, with its cachexia.—*Hughes*.

Nitric ac.—Ulceration of the mouth, and cracks about the commissures of the lips.

Kali bi.—Indolent ulceration of the tonsils. Affections of the throat, eyes, skin, and periosteum.

RUPIA.—*Thuja*.

SARCOCELE.—*Aur.*

IRITIS.—*Merc., Kali hyd.*

GUMMATA.—*Merc., Kali hyd.*

OZÆNA.—*Aur., Kali bi., Kali chlor., Kali hyd.*

CONDYLOMATA.—*Ac. nit., Thuja, Merc., Ant. tart., Ac. phos.*

CARIES OF BONE.—*Aur., Mez., Phos., Kali hyd., Merc., Ac. fluor.*

ULCERATION OF THROAT.—*Merc., Kali bi., Ac. nit., Iod., Kali iod., Hydr., Ac. fluor.*

CHANCROID.

SYNONYM: *Soft Chancre.*

DEFINITION.—A virulent, local, contagious ulcer, never giving rise to constitutional symptoms, its effects being limited to the vicinity of the sore, and the neighboring lymphatic glands.

It is never transmitted by inheritance. It is auto-inoculable. A person may have repeated attacks. The prognosis is always favorable.

LESION.—A round or oval ulcer, surrounded by a faint, pink areola, with abrupt *edges*, sharply cut at right angles to surface, often slightly undermined, the bottom being irregular, *soft*, and covered with pultaceous, dirty-yellow pus.

REMEDIES.

Mercurius, Arsenicum, Acid nit., Kali bi., Hepar sulph., Phosphoric ac., Silica.

LOCAL.—Touch with strong *Nitric acid*. Before cauterizing, cleanse surrounding parts with *Carbolic lotion*. Do not cauterize unless the *whole* of diseased surface can be acted on. Chancres beneath phimosed prepuce, treat by frequent injections *Carbolic lotion* (1:40), using syringe with long nozzle.

When caustic not used, best application is *Iodoform*; dust on powdered crystals, cover with dry lint, and use retaining dressings.

Dressings of all kinds must be *changed frequently*, and opposing surfaces kept apart. Destroy old dressings; use no greasy applications.

PARAPHIMOSIS.

If strangulation occur, effect reduction. In *phimosis*, if swelling so great as to prevent the use of syringe, or if sloughing threaten, slit up the prepuce by *double* incision,

or remove altogether, and treat as phagedæna. Otherwise, hot local baths to reduce œdema.

PHAGEDÆNA.

Immerse the *entire* diseased part in a bath at 98° F., and maintain this heat for nine or ten hours per day. Use hip bath; continue for several days after sore puts on healthy appearance. Let the patient go to bed at night, dressing the sore with *Iodoform*. If disease not arrested, make bath continuous; full bath, in which patient can lie down, will accomplish this. If milder measures fail, cauterize. Check all hæmorrhage at once; apply to bleeding point pledget of lint soaked in solution *Persulphate of iron*, retained by firm bandage.

GENERAL.—Rest; good food; good ventilation. In phagedæna, tonics and *Cod-liver oil*.

BUBO.

To favor resolution, use pressure and dry heat. If supuration be found to be inevitable, promote with poultices; open by free incision *across* the line of Poupart's ligament, as soon as presence of pus is manifest, and treat same as local sore. Aspiration of no service.

GONORRHŒA.

ACUTE STAGE.

LEADING REMEDIES.

Gelsemium.—In recent cases. Discharge moderate; much irritation; considerable heat; little pain; smarting and redness at meatus. Dose—One to two drops every three hours.

Has a striking effect on the acute stage of gonorrhœa, usually bringing relief in twenty-four to forty-eight hours. Fully ninety per cent. of cases report speedy relief.—*Adams*.

Cannabis sat. tinct.—Smarting, burning, stinging, during micturition; constant urging; copious, thin discharge; prepuce swollen and painful; stranguary, pains extending into scrotum, with dragging in testicles.

A characteristic indication for this remedy is priapism.—*Adams*.

Cantharis, 2x.—When urinary symptoms indicate that inflammation is extending toward bladder; *ardor urinæ*; cutting, stinging pain during and after micturition.

Particularly called for when blood occurs, either free or mixed with discharge.—*Adams*.

Mercurius, 2x.—“When inflammatory process is accompanied by free exudation into submucous tissue and thickening of the urethral walls, producing *great diminution in the size of the stream of urine, and chordee.*”—*Adams*.

LOCAL.—Astringent and irritative injections are of doubtful utility. Observe *strict cleanliness* of the part. To absorb and remove discharge, keep a piece of lint over the meatus, retained by drawing the prepuce over it, or a piece of soft linen, with a hole in the center, drawn like a collar just back of the corona glandis, and the corners then brought forward, with the prepuce over it. Avoid use of warm and cumbersome dressings; tissue paper is best. Renew dressings frequently, and destroy old ones. Wear a light suspensory for the scrotum.

If, after well conducted course of treatment, a “drop or two” still appear, suspect incipient stricture, and use mechanical dilatation.

DIET.—Avoid all greasy, fried, or highly seasoned articles—pepper, vinegar, salt, coffee, or tea. Salad dressings, asparagus, acid fruits, tomatoes, strawberries, pastries, and particularly all malt, vinous, and spirituous liquors should be strictly prohibited. Let the diet be light; plain milk diet best. *Drink large quantities of soft water.*

GENERAL.—Rest in recumbent posture will greatly promote recovery. In any event, to as great an extent as possible, avoid physical exertion, and all sexual excitement.

CHORDEE.—Empty the rectum by enema before retiring. Sleep on hard mattress, with light bed-clothes; room cool and well ventilated. When erection occurs, evacuate bladder; stand on cold oil-cloth. Medicinal treatment as for original disease. External application of *Camphor-ice* along urethra, at night, has prevented chordee.

INJECTIONS.—Useful in but small number of cases. Hot mucilaginous infusions best—gum water, linseed water, with a little *Hydrastis*. Any injection which causes greater pain than *very slight* smarting will do more harm than good. In any case, must be employed *very early*—later, of no use.

RETENTION OF URINE.—Avoid passage of catheter *if possible!* Quiet mental anxiety; inject in perineum *Morphia* $\frac{1}{4}$ grain, and *Atropia* 1-120 grain; repeat in an hour; place patient in hot bath, submerged to the chin, until the flow of urine begins; if signs of syncope appear, remove him from bath, put a hot mush poultice over the hypogastrium, and give an enema of hot water and soapsuds. All other means failing, aspirate the bladder.

STAGE OF DECLINE.

LEADING REMEDIES.

Mercurius iod.—Discharge free and mucoid; patches of induration found along urethra.

Sepia.—Chronic mucoid discharges, without pain. Especially gonorrhœa of females.

Hepar sulph.—Muco-purulent discharge in those who have had several attacks.

Thuja.—Thin, whitish, painless discharge. Sub-acute and chronic cases, especially when there is inflammation of prostate.

Sulphur.—Mueh thickening along urethra.

Silica.—Cases of long standing, with slight, shreddy discharge.

INJECTIONS.—May be used in this stage. Half a grain of *Argentum nit.*, *Zinc sulph.*, or *Plumbum acet.*, to ounce of water. Powdered *Hydrastis* ʒss. to ʒj. water, excellent in cases of long standing.

Short-nosed, hard-rubber syringe holding ʒij. First clear the urethra by miction, or warm water. Insert the nozzle just within the meatus; compress the sides of the urethra with thumb and finger above the syringe tip; inject slowly. Retain the injection for a minute or two, manipulating the urethra.

If the discharge persist, pass slowly a full-sized, smooth, steel sound, at intervals of three or four days.

GLEET.

Treat by slightly astringent injections, and remedies as indicated above. But a permanent cure demands treatment of the accompanying

URETHRAL STRICTURE.

Chronic urethral discharge always indicates *stricture*, and the latter must be treated. Pass an olive-pointed bougie, *not beyond the prostate*, using no force. If the meatus be contracted, with keen-edged bistoury cut downward and backward in the median line, and insert a piece of oiled lint to prevent primary adhesion. Make gradual dilatation at point of stricture with olive-pointed bougies up to No. 8, then steel sounds. Never use a *steel* sound smaller than a No. 9.

Leave bougie *in situ* only a few moments, and introduce larger sizes at intervals of two days, more or less, according to patient's urethral sensibility. Use no force. Make haste *slowly*. Gradual dilatation should be carried up to normal size of urethra, as ascertained by bulbous bougie, or urethrometer. Traumatic and resilient strictures, and those of the penile urethra, should be treated by over-distention and urethrotomy combined.

EPIDIDYMITIS AND ORCHITIS.

LEADING REMEDIES.

Pulsatilla.—Sub-acute inflammation, the glands alone being affected; pain shooting down the back or into the thigh, and changing suddenly.

Hamamelis.—Dull, heavy pain in testicle, at times excruciating. Scrotum hot, congested, and swollen; the skin tense, smooth, and shining.

Aconite.—Fever; hot, dry skin; full pulse; great vascular excitement.

Belladonna.—Great sensitiveness of nervous system, with intolerance of pain, which is of neuralgic character.

Clematis.—Orchitis following chronic urethritis.

Arnica, Conium.—From contusion.

GENERAL MEASURES.

Absolute rest in bed—do not let the patient rise even to relieve bladder or bowels; *support the testicle* so as not to drag on the cord; apply hot *Hamamelis* fomentations; *after inflammation has subsided*, strap with adhesive plaster so as to make pressure. Relief of tension of tunica vaginalis is promptly afforded by puncture, a straight, three-cornered surgical needle being passed through the scrotum, and six or ten punctures being made in the envelope of the testis.

HYDROCELE.

REMEDIES.

Iodine, Calcareo carb., Silica, Aurum, Pulsatilla, Rhododendron, Graphites, Kali hyd.

Operative Treatment.—In *infants* acupuncture, causing the fluid to escape into areolar tissue of scrotum, often cures.

Palliative Treatment.—For adults, evacuate the contents of the sac with aspirator or trocar. *Method.*—Make out the position of the testicle; grasp the tumor firmly in the left hand, with the testicle occupying the middle of the palm. Plunge the needle or the trocar obliquely upward and backward into the juncture of the middle and lower thirds of the hydrocele.

Radical Cure.—Tap the hydrocele with a small trocar; empty the sac of all fluid and inject liquid *Carbolic acid*, twenty to thirty minims, manipulating the sac so as to bring the acid into contact with its entire surface, allowing the acid to remain. Confine the patient to room for forty-eight hours.

This method is followed by a radical cure in most cases, and is unattended by fever or other complications.—*Adams.*

PART IV.

MISCELLANEA.

THE SEVEN AGES.

1. Infancy — from birth to 7th—10th month;
2. Childhood — from 1st to 2nd dentition;
3. Boyhood — from 2nd dentition to puberty;
4. Adolescence — from puberty to 20th—25th year;
5. Early manhood — from 25th to 45th year;
6. Later manhood — from 45th to 60th year;
7. Old age — from 60th year onward.

THE TEMPERAMENTS.

SANGUINE TEMPERAMENT.

The *form* is full and round, neither very gross nor very spare, and the *muscles* firm and elastic. The *complexion* is florid and ruddy, from the rich capillary circulation. *Arterial blood* abounds, the veins being small, the circulation active, and the *pulse* full and quick. The *bodily functions* are quickly and easily performed. Mind and body are quickly stimulated into action, and there is great endurance.

There is an intense animation and buoyancy of spirits, and in the mental sphere rapid thought, vivid imagination, and quick perception.

Subjects of this temperament are prone to congestions, inflammations, and fevers, and all diseases are inclined to take on inflammatory action.

REMEDIES.

Aconite, Belladonna, Bryonia, Gelsemium, Veratrum vir.

NERVOUS TEMPERAMENT.

The *habit* is spare, the frame somewhat angular, the *muscles* spare, and not well defined. The skin is dark, dull,

earthy, or sallow, and hot and pungent to the touch. The cranium is large. The *circulation* is languid, with a preponderance of the venous system; the *pulse* variable and easily excited. The face has the lineaments of energy, and movements are hasty and abrupt.

The mental powers are large, and capable of persistent exercise. The affections are violent, and the sexual passions usually very strong. Sensations have an intensity far in excess of the exciting cause.

The individual is subject to neuralgia, nervous diseases, spasmodic affections, and mental disorders.

REMEDIES.

Atropia, Ignatia, Coffea, Valerian, Moschus, Phosphorus, Zincum.

LYMPHATIC TEMPERAMENT.

The *body* is heavy, inclined to corpulence, the flesh full but soft; the joints and hands large, and the feet broad and flat. *Complexion* sallow or pasty; the hair light or reddish. The pulse is slow and easily compressed. The bodily functions are slow and languid. The chest and heart are inadequate in bulk to the rest of the body.

The mental processes are *slow*, though there is great firmness and constancy, and usually good judgment.

These subjects are inclined to glandular enlargements, catarrhal affections, abscesses, and dropsies. There is slight power of resistance to acute diseases, with a tendency to take on the chronic form, especially of the strumous and asthenic kinds.

REMEDIES.

Arsenicum, Iodine, Calcarea, Hepar sulph., Mercurius, Sepia, Silica, Sulphur.

BILIOUS TEMPERAMENT.

Habit spare; muscles hard-knit; tendons wiry; complexion swarthy, with a yellowish tinge; sharp features; dark and deep-set eyes. They are characterized by violence of reaction to irritation, particularly of the biliary apparatus, with disturbances of the digestive functions, dark-colored urine, and constipation. The bilious derangement engenders melancholy, ill humor, and acrimony of temper.

REMEDIES.

Nux vomica, Chamomilla, Bryonia, Sulphur, Podophyllin, Aloes.

LEGAL MEDICINE.

Expert Testimony.—A physician is in law an expert as to all matters embraced within the range of his profession. It is not necessary that he be at the time in actual practice. It is not necessary that he should have made the particular disease involved in any inquiry a specialty. But if he has devoted himself exclusively to one branch, and has had no experience in that subject to which he is called to testify, his testimony is inadmissible. A practicing physician, whose knowledge of the particular subject of inquiry (*e.g.*, insanity) was derived from study alone, has been held competent to express an opinion as an expert. Medical books are not admissible in evidence.

An expert cannot be compelled to attend during the entire trial for the purpose of hearing all the testimony.

The law is extremely conflicting as to whether professional men can be compelled to testify as *experts* without extra compensation. In England it is settled that additional compensation is required. In the United States the question is open, with the weight of authority in favor of the English rule.

In the absence of any statutory provision to the contrary, it is well settled that a physician or surgeon may be compelled to disclose any communications made to him in professional confidence. This rule has been abrogated in several of the states by express statutes.

Physicians and surgeons shall be incompetent to testify as to information obtained in a professional capacity from a patient.—*Missouri*.

No person duly authorized to practice physic or surgery shall be allowed or compelled to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon.—*New York*.

Skill Demanded.—A physician's charge is more on account of his skill and knowledge than of the time given to his patient's case. He is held to exercise ordinary care and skill, but is not held to produce any benefit to the patient. The only defense against a suit for physician's service rendered on employment is, first, as to the unreasonableness of the charges, or, second, actual malpractice. But a physician must adhere to the system and the custom of the branch of the profession he has avowed.

Collections.—A physician has a right to demand and sue for reasonable charges for professional services rendered upon employment, either in advice or aid.

Books of original entry only are received as evidence. A bill of items may be demanded by the debtor.

When a patient receives, without objection, the services of an assistant, or a student, he is bound to the principal

for the same. But where partners both attend a patient, they must recover in the firm's name.

A bill for services rendered to a servant must be collected from him, unless the master expressly agrees to pay for the same. A minor may be held responsible for medical aid rendered him.

Either the husband or wife, or both jointly, may be held for services rendered to one of the family. A city must pay for services rendered by a physician called by a police officer, if the case is urgent, and the regular City Physician and Surgeon is absent.

Good Will.—A physician may sell the "goodwill" of his practice, or his business, and may contract that he will not, within certain places and times, practice his profession; but an agreement not to practice his profession at all is unlawful and cannot be enforced, because it is against public policy.

Jurors.—Practicing physicians are exempt from duty as jurors.

Liability of Physician.—A physician is liable for any damage caused by malpractice. He is also liable for all acts of an assistant or student done in the regular course of business.

Malpractice.—A physician or surgeon must bring to the performance of his duties as a professional man at least ordinary skill and knowledge, and must apply without mistake what is settled in his profession; and must have the knowledge of the best and leading authorities in his science, down to the time the act is performed, or he is liable for damages that may accrue from his practice.

LAW REGULATING THE PRACTICE OF MEDICINE IN THE STATE OF ILLINOIS.

Every person practicing medicine, if a graduate in medicine, shall present his diploma to the State Board of Health, for verification; if found to be genuine, the State Board of Health shall issue its certificate to that effect, and such diploma and such certificate shall be conclusive as to the right of the lawful holder of the same to practice medicine in this state. If not a graduate, the person practicing medicine in this state shall present himself before said Board and submit himself to such examinations as the said Board shall require, and if the examination be satisfactory to the examiners, the said Board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

Every person holding a certificate shall have it recorded in the office of the Clerk of the County in which he resides.

Any person removing to another county to practice shall record the certificate, in like manner, in the county to which he removes.

The State Board of Health may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes.

Any person shall be regarded as practicing medicine, within the meaning of this Act, who shall profess publicly to be a physician, and to prescribe for the sick, or who shall append to his name the letters "M.D."

INFANT DIET.

In order to prepare cow's milk so as to adapt it to the wants of the infant organism, it must be diluted by the addition of a mucilaginous liquid, such as gum-Arabic water, barley water, gelatine, or oatmeal water, and some *Bicarbonate of soda*, sugar, and a little salt added, in about the following proportions:

Fresh milk, - - - - -	1 teacupful;
Hot water, - - - - -	1 " "
Soda (bicarb.), - - - - -	½ teaspoonful;
Sugar of milk, - - - - -	1 " "
Salt, - - - - -	A little;
Gelatine, - - - - -	1 tablespoonful.

First dissolve the soda, the sugar, the salt, and the gelatine in the hot water, and then add the milk.

Make it fresh at each feeding. This is about the right proportion for a baby of four months; under that age decrease the proportion of milk slightly; over that age, increase it. In place of the gelatine, oatmeal water, barley water, or gum-Arabic water may also be used, substituting a cupful of either for the pure water which is used when gelatine is employed. The addition of some gelatinous fluid seems to favor the digestion of the milk.

Oatmeal Water.—Soak a teacupful of oatmeal in a pint of water, with a little salt added, over night. Strain thoroughly, through a napkin, next morning.

Barley Water.—Take a teacupful of pearl barley, and soak it for half an hour in a little lukewarm water, previously salted. Drain off the water, pour the barley into a pint of boiling water, and let it simmer one-half hour; when done, strain into a pitcher.

Gum-Arabic Water.—Dissolve pure gum-Arabic in water, one part to ten, by bulk.

For very young babes, use the *gum-Arabic* water, in the proportion above given; for older children, barley water if the bowels are loose, *oatmeal water* if there be constipation. A little *gelatine* added to the mixture of milk and water may be substituted for any of the above.

DIET IN CHOLERA INFANTUM.

Keep the child cool, let it have plenty of fresh air, and let it have *no food in which the process of fermentation has begun. Avoid starchy foods.*

The milk and barley water, prepared as above, may be all-sufficient. Keep *litmus* paper on hand, and test the milk frequently; if it show any *acidity*, reject it.

Albumin Water.—Gently stir the whites of two eggs into a half pint of cold water, and sweeten with a little sugar of milk.

This is the most *simple* food that it is possible to obtain, and may be resorted to when all others fail.

Wine Whey.—Heat a pint of fresh milk to the boiling point; add slowly a wineglassful of sherry wine, and let it gently simmer until the curd forms. Strain the whey through a cloth, and sweeten. This is nourishing and stimulating.

DIET IN FEVERS.

Give *no solid food* to a fever patient. Let all food be *simple but nutritious*. Give food at *frequent intervals* and in *small quantities*. Food for fever patients should be fluid in form, easy of digestion, and highly nutritious. Those who have been properly nourished make the best recoveries. In typhoid, and diseases in which the bowels have been affected, no solid food must be given until the stools are again consistent and fecal.

Milk is the best food that can be given. So long as the patient can take it, none other need be sought for.

Beef Tea, in the stage of depression, is useful as a stimulant.

RECIPE.—Take one pound of fresh meat, cut very fine, soak in one-third of a quart of cold water over night. In the morning remove the meat, saving the water in which it has soaked. Put the meat in two-thirds of a quart of water, and let it simmer for two hours, keeping the water up to its original level by replacing what is lost by evaporation. Now pour the beef broth into the cold liquor in which the meat was soaked, squeezing the meat as dry as possible. The meat which remains should be spread on a tin plate, and dried in an oven. When perfectly dry it can be easily reduced to a powder in a mortar. Mix this meat powder in the liquor, and you have all the elements of the meat in a fluid form. Salt to taste, and add twenty drops of *Muriatic acid* and three grains of *Pepsin*.

This is the *only* preparation of beef tea which contains all the elements of the meat.

RULES FOR MAKING BEEF TEA.—Never let beef tea boil. Always begin with *cold* water. Cut the meat very fine, and remove all fat, gristle, and bones. The proper proportion is a pound to a pint. After making, carefully remove all traces of fat. To warm up beef tea, put it in a bowl, and set the bowl in a vessel of hot water.

Egg Nog.—One egg; one glass of milk; one dessert-spoonful of brandy; one dessert-spoonful of sugar. Carefully scald the milk, and let it afterward become cold. Beat the sugar and egg up together to a froth, put into a glass, add the brandy, and fill up with the milk. If wanted in a hurry, the milk may be used without scalding.

Mutton Broth.—Take a pound of fresh mutton, free from fat; cut into thin slices with a sharp knife; put into a suitable dish, salt, pour over it a quart of *cold* water, and let it *simmer* over a slow fire for an hour; then let it *boil* for an hour longer. Strain off the broth, refusing the meat fiber. Season with salt.

RECTAL ALIMENTATION.

Preparatory to giving an enema, empty and wash the rectum by giving an injection of clean, warm water.

Force the enema in *slowly*.

Throw it as high up as possible.

Inject at intervals of two hours.

Inject no more than half a teacupful at a time.

Let the enema have a temperature of about that of the body—98° or 100° F.

Warm Milk, with a little salt in it, makes a simple and readily absorbed enema. Heat the milk to the proper temperature, inject every two hours, and the patient is getting considerable nourishment.

Beef Tea, made according to the recipe given, makes a *very nutritious* enema. The *Pepsin* and *Muriatic acid* are necessary to fit it for absorption.

Cod-liver Oil.—Chop fine a half pound of beef pancreas; cover this with water and allow it to stand for an hour in a warm place. Strain through a cloth. Mix an ounce of this pancreas solution in a half ounce of *Cod-liver oil*, and use as an injection in those cases in which it is desired to supply the system with fat.

NUTRIENT SUPPOSITORIES.

Take a quantity of the whole beef tea, set the basin containing it in another vessel of hot water on the stove, and evaporate the water from the beef tea until it becomes of a

creamy consistence. Now add an equal quantity of Cacao butter, melt both together, pour into a dish, and allow the mixture to cool and solidify. With a warm knife cut into bits, and shape like a pigeon's egg. These nutrient suppositories, introduced into the rectum at frequent intervals, will afford nourishment to the system in the neatest and cleanest way in which artificial alimentation can be practiced.

MILK DIET.

Diabetes, Bright's disease, dyspepsia, and some other diseases, undergo great improvement on an exclusive milk diet. The following rules will aid in carrying out this treatment:

Use *fresh* milk. The milk may be taken cold or warm, but it *must not be boiled* in the warming.

The first day take from *four to six* pints. This would be from two to three glassfuls taken every two hours during the day.

It is better to divide the day into equal periods, and take frequent draughts—even though a glassful be taken every hour—than to take a large quantity on the stomach at once.

The quantity of milk should be increased from day to day until five or six quarts are taken daily. This quantity, six quarts, need not be exceeded.

In *diabetes*, *nothing else* must be taken while the milk diet is used. If at the end of a week there is no improvement, the treatment may be abandoned. If the treatment be of benefit it will be denoted by a diminished amount of urine, less sugar, and improvement in the general health. It should be continued from three to six weeks after all sugar has disappeared from the urine.

POULTICES.

Cataplasms are *local baths*—they supply heat and moisture to a part, soften the cuticle, relax the skin, dilate the vessels, lessen tension, and relieve pain.

Used in—Pneumonia, pleurisy, bronchitis, pericarditis, peritonitis, other internal inflammations, rheumatism, lumbago, and to mature abscesses.

Rules.—Do not remove one poultice till next is ready to replace it. A poultice should be applied as hot as it can be borne. Change a poultice every two or three hours by day, every four hours at night. To make a poultice retain heat longer, cover with oil silk or cotton wool. Peritonitis requires a *thin* poultice; cover with cotton wool. In suppurations, do not let poultice be larger than the abscess it is intended to cover.

Linseed Meal.—Put sufficient hot water into a *hot* bowl, sprinkle the meal into the water, stirring *vigorously* until the required consistency is attained, and lastly stir in a small quantity of olive oil. Spread smoothly and *evenly* on a piece of muslin, and cover with a piece of cheese cloth. *Oatmeal* poultices may be prepared in a similar manner.

Starch.—Add a little cold water to the starch, and blend the two into a pap; then add sufficient boiling water to bring it to the required consistence, and spread on cloth. This is neat, bland, and unirritating.

Disinfecting Poultice.—Anoint the part with *Carbolic oil* (1:10), and apply a pad of carded oakum, wrung out of hot water.

Fly Blister.—Spread a thin layer of *Cantharides cerate* on a piece of brown paper, soft leather, or, preferably, a piece of *adhesive plaster*. Leave free margin around the salve. Moisten skin with vinegar, cover surface of plaster with tissue paper moistened with vinegar, apply and secure by adhesive straps. From two to twelve hours minimum and maximum time to leave plaster on.

Chloral Blister.—Take a piece of adhesive plaster of suitable size, moisten it, and sprinkle on some powdered *Chloral hydrate*. Apply to the part where vesicant action is desired.

Cantharidal Collodion.—Dissolve gun-cotton in an ethereal solution of *Cantharides*. Apply by means of a camel's hair pencil. This makes a very effectual and easily regulated *vesicant*.

Mustard Poultice.—Mix some linseed meal in a quantity of boiling water, to creamy consistence, then add same quantity of mustard as of meal used, stirring constantly. Spread on a cloth, cover with gauze, and apply.

A mustard poultice should remain from ten minutes to half an hour, according to strength. Indicated when mild and rapid counter irritation is required.

MOIST FOMENTATIONS.

Used to relax spasm, as intestinal, renal, and biliary colic.

Directions.—Place a fold of flannel cloth in the middle of a towel, twist the *ends* of the towel, and dip the portion containing the flannel into boiling water, take out and *wring* it until as much water as possible is pressed away. Take out the flannel and apply it to the painful part. Or, sprinkle a fold of flannel with warm water, and run a *very hot* flatiron over it. Compresses lose their heat rapidly, and must be frequently renewed.

Turpentine Stupe.—If slight counter irritation be desired, sprinkle the fomentation with *Turpentine*.

Poppy Fomentation.—Sprinkle the fomentation with *Laudanum*, if sedative action be desired.

DRY FOMENTATIONS.

When *dry heat* is required, put into a flannel or muslin bag, of suitable size, a quantity of hot *sand*, hot *salt*, hot *bran*, or hot *cornmeal*. A *hot plate*, wrapped in a cloth, answers well. A rubber bag filled with hot water is the most perfect. Put *Acetate of soda* into a tin can, tightly closed, of suitable shape; set this in boiling water for thirty minutes; remove, wrap in flannel, and apply to painful part. It will give off heat for many hours.

COLD APPLICATIONS.

Ice-bags.—Put pounded ice, with a little water, into a bladder or rubber bag, filling it only half full. Use for refrigeration and to contract the vessels and reduce congestion, especially in inflammation of the brain.

Cold Cloth.—Cloths may be simply wrung out of cold water, or, put some salt and pounded ice into a tin basin, set this on a wet cloth, stir, and the cloth beneath may be quickly frozen to any required degree.

Cold Drop.—Stand a vessel of cold water on a table higher than the patient's bed, put one end of a long strip of lamp-wick into the water, and lay the other across a cold cloth which is applied to the inflamed part. A continuous stream of cold water is thus conveyed to the part, and the water which passes from it must be caught in a basin on the other side.



Cold Cap.—Stitch upon a muslin cap, made to fit the head, a coil of rubber tubing, arranged spirally, with the two ends free. Wet the cap, and put it on the head, then place one free end in a bucket of cold water, suspended at a height, and the other in another bucket on the floor. Let the water siphon from the upper to the lower bucket. When the upper one becomes empty, reverse their relative positions.

This is a very efficient method of refrigerating the head in cerebro-spinal meningitis, and in "brain fever," when it is desired to apply *continuous cold*.

BATHS.

TEMPERATURE OF BATHS.

BATH.	WATER.	VAPOR.	AIR.
Cold, - -	33° to 65° F.		
Cool, - -	65° to 75°		
Temperate,	75° to 85°		
Tepid, - -	85° to 92°	- 90° to 100°	- 96° to 106°
Warm, - -	92° to 98°	- 100° to 115°	- 106° to 120°
Hot, - -	98° to 112°	- 115° to 140°	- 120° to 180°

Bran Bath.—Boil four pounds of bran in one gallon of water, strain, and add the liquor to sufficient water for a bath. Use to allay irritability of skin, and to soften it in squamous diseases.

Salt Bath.—Add rock-salt in the proportion of one pound to four gallons of water. Use as an invigorating bath, and to lessen susceptibility to cold.

Alcohol Bath.—An ounce of *Alcohol* to the quart of water. Use for same purpose as salt bath.

Sulphur Bath.—Twenty grains of *Sulphuret of potassium* to a gallon of water. For skin diseases and rheumatism.

Mustard Bath.—Add a handful of mustard to the ordinary hot bath, or a smaller quantity to a foot bath. Use when stimulating action is required.

Cold Douche.—Lower patient's head, place rubber cloth under, and pour cold water from a pitcher over crown of head, the pitcher being slowly and gradually raised higher and higher, so that the water may fall with more force. Use in sunstroke, and intense cerebral congestion.

Wet Pack.—Spread a comfort and several blankets on the bed, and over these a sheet wrung out of cold water. Remove all of the patient's clothing, lay him in middle of sheet, draw the edges of sheet over, and wrap the patient in it snugly, then draw over one side after another of blankets and comfort, and make all snug. Put cold wet compress on forehead.

Use to reduce temperature in typhoid, and to develop delayed eruption in scarlet, and other specific fevers.

It develops the rash, greatly reduces the fever, quiets the pulse, renders the skin moist and comfortable, and abates the restlessness and wandering.—*Ringer*.

Blanket Bath.—A blanket is wrung out of hot water, and wrapped around the patient. He is to be packed in three or four dry blankets, and allowed to rest quietly for thirty minutes. The surface of the body should then be

well rubbed with warm towels and the patient made comfortable in bed. This is an easy means of inducing perspiration.

Vapor Bath.—*Improvised.* Place patient, with clothing removed, in large, cane-seated chair, and surround both completely with blankets, letting them extend to the floor, and be secured about patient's neck. Under the chair place basin of hot water, with alcohol lamp beneath it; bring water to a boil, and patient will soon be brought into a state of perspiration which may be carried to any desired extent. Use in uræmia, Bright's disease, and whenever diaphoresis is required.

Mercurial Bath.—Given as above, by adding a metal plate, with lamp beneath, on which is put sixty to one-hundred-and-eighty grains *Bisulphuret of mercury*. Used sometimes in treatment of secondary syphilis.

VENTILATION.

To purify the atmosphere of a sick-room, nothing equals *an abundance of pure, fresh air*.

To ventilate a room, and at same time avoid a draft, raise the lower sash, and shut it down upon a folded blanket placed beneath it, leaving an aperture of several inches between lower edge of upper, and upper edge of lower sash.

DISINFECTANTS.

No. 1.

Copperas (*Sulphate of Iron*).—This is a cheap and good disinfectant for many purposes. It can be obtained at any drug store. In warm water it will soon dissolve by stirring. When put into cold water let it stand all day, or over night. Use in about the following proportions:

To a bucket of water, add - - - 2 lbs. copperas.

To a tub of water, add - - - 20 lbs. copperas.

To a barrel of water, add - - - 40 lbs. copperas.

This can be used for privy-vaults, water-closets, catch-basins, cesspools, etc. Pour into water-closet about a bucketful at a time, once or twice a day.

No. 2.

Chloride of Zinc.—This is one of the best of disinfectants. It is superior to the *Copperas* solution, but being more expensive, is not so available for use in large quantities. Prepare in proportion of—

Chloride of zinc, - - - - - 1 pound.

Water, - - - - - 2 gallons.

Throw this into kitchen sinks, house drains, cesspools, water-closets, and the like. Also use it in chamber-vessels, about the sick-room.

No. 3.

Bichloride of Mercury (*Corrosive sublimate*).—A solution consisting of one part of the *Bichloride of mercury* to 1,000 parts of water is one of the most efficient disinfectants known. It can be used for water-closets, urinals, sinks, and cesspools, or for soaking clothing, towels, bedding, and other fabrics. *Corrosive sublimate* is a dangerous poison, and should be carefully handled.

No. 4.

Carbolic Acid.—This is an excellent disinfectant if used sufficiently strong, but a weak solution does little good.

Two ounces *Carbolic acid* to one quart water — for night vessels, sinks, and water-closets.

One pint *Carbolic acid* to five gallons water — for drains, sewers, and cesspools.

No. 5.

Quicklime.—Unslacked lime may be used to throw about wet places, in damp cellars, under buildings or sidewalks, or into privy-vaults. Outbuildings, stables, and sheds should be whitewashed.

No. 6.

Chloride of Lime.—This may be strewn about barns and outhouses, and thrown into cesspools, drains, and sewers.

Do not use Chloride of lime about the house. Other disinfectants, which are less *offensive*, are at the same time equally efficacious, and some even of greater value.

No. 7.

Charcoal.—This is very useful to cover heaps of filth, pools, and wet places. Sometimes it is better not to disturb an old cesspool; but, instead, cover it over with charcoal. *Dry earth* may be similarly used, and it is almost as good.

No. 8.

For Soiled Clothing.—Make a solution in the following manner:

Sulphate of zinc,	- - - - -	1 pound.
Carbolic acid,	- - - - -	2 ounces.
Water,	- - - - -	4 gallons.

Keep a tubful of this near the sick room, and into it place all soiled bed-linen and clothing.

If clothing be subjected to a temperature of 212° F. (100° C.) for an hour, either by boiling or baking, it effectually destroys all germs.

After all, the best disinfectant is *fire*, and, if possible, *everything* which has been in contact with the sick had better be *burned*.

No. 9.

For Air of Sick-room.—Put into a saucer—

Permanganate of potash, - - - - -	1/2 ounce.
Oxalic acid, - - - - -	1/2 ounce.
Water, - - - - -	1 ounce.

Mix well. In two hours add small quantity more of water. This will emit enough *ozone*, which is an active disinfectant, for a large room.

Fumigation.—To fumigate a room, put some *Sulphur* (*Brimstone*), broken into pieces, in a tin vessel, and set this on a brick which is placed in a tub having a little water in the bottom. Set the *Sulphur* afire, and hasten from the room, having all windows and doors tightly closed, and all cracks well stuffed, even to the keyhole. Keep the room closed for six hours, then open and air it. Eighteen ounces of *Sulphur* should be used for each space of one thousand cubic feet—a room ten feet square.

SANITARY MEASURES

To be observed during the prevalence of cholera, yellow fever, typhus, and other infectious diseases:

Where absolute cleanliness exists infectious diseases do not prevail. This is the key to the entire subject of prophylaxis.

Cholera is most destructive where human life is massed on low, undrained sites which have been long occupied. Those who live in clean, dry, airy, and well drained localities have little to fear from its visits.

But cities and towns must prosecute a rigorous system of scavenging, and the work must be *thoroughly done*. Every spot where there is any organic matter liable to decay must be thoroughly cleansed. All deposits of garbage, *débris*, or filth of any kind, must be removed, and the places purified by the free use of disinfectants. The scavenger must clean alleys of the accumulations which they usually contain, and all places once cleaned must be *kept clean*.

The garbage thus gathered should be removed to a great distance, and, if possible, *burned*.

Cesspools and sinkholes must be *drained till dry*, disinfected, and then filled up with *dry earth*, and *kept dry*.

In towns each house owner should clean up the back yard, so often the receptacle for garbage, gather it into a heap and *burn it*.

In cities sewers should be flushed again and again, and everything washed and cleansed that will bear it — courts, yards, areas, passages, and pavements.

In flushing sewers solutions of *Chloride of lime* or *Permanganate of potash* should be used in large quantities.

But once a place is *clean and dry*, let it remain so; moisture favors the decay of organic matter and the development of germs.

If stagnant pools have been left until the cholera has actually come, do not then disturb them, but throw in an abundance of disinfectants, and cover with dry earth or charcoal.

All kitchen refuse and scraps should be *burned*. This can easily be done in stoves and ranges.

Outhouses should be whitewashed, cleansed, and lime scattered in all corners and cracks.

Damp cellars should be drained and dried, ventilated, whitewashed, and have lime scattered about all dark corners.

In houses the drain pipes, sewer pipes, and all plumbing must be put in *perfect order*, that there may be no leakage of sewage and no escape of gases.

Flush all water-closets daily by pouring down a bucketful of disinfectant solution.

In typhoid fever, cholera, and epidemic dysentery, the discharges should be *burned*. This can be accomplished by mixing the excretions with a sufficient quantity of charcoal or sawdust, and burning this in a brisk fire in a furnace or stove, which may be devoted to that purpose.

DRINKING WATER.

The germs of cholera, typhoid fever, and epidemic dysentery are conveyed by means of drinking-water more than by any other one agency.

Hence, to avoid these diseases, use only water which is *absolutely pure*.

Use no well water which contains surface drainage.

Do not take water from a pitcher or other large vessel standing in a close room.

All drinking-water should be *boiled and filtered*. Do not simply *warm* it, but let it *boil*.

The flat taste of boiled water may be corrected by filling a large bottle half full of the water and shaking it violently, so as to mix it with air.

Keep all drinking-water in *glass* or *earthen* vessels which have been well *scalded*.

MICROSCOPICAL EXAMINATION OF THE URINE.

GENERAL RULES.

1. Sediment in the urine has no significance unless deposited within twenty-four hours.

2. *Albumin* in the urine does not indicate kidney disease unless accompanied by *tube casts*. The most fatal form of Bright's disease (contracted kidney) has little or no albumin.

3. Every *white* crystal in urine, regardless of shape, is a *phosphate* (except the oxalate of lime, which has its own peculiar form), when the urine is *alkaline*.

4. Every *yellow* crystal is *uric acid* if the urine is *acid*, or a *urate* if the urine is *alkaline*.

5. Mucous casts, pus, and epithelium signify disease of the *bladder* (cystitis), or of other parts of the urinary tract, as determined by the variety of *epithelium*.

6. The urine of females can often be differentiated from that of males, by finding in it the tessellated epithelium of the vagina.

7. Hyaline casts (narrow), blood, and epithelial casts, signify *acute* catarrhal nephritis. Much albumin.

8. Broad hyaline casts, and epithelial, dark granular, and oil casts, signify *chronic* catarrhal nephritis. At first, much albumin; later, less.

9. Hyaline and pale granular casts and little or no albumin signify *interstitial nephritis*.

10. Broader casts are worse than narrow casts, as far as diagnosis is concerned, for the former signify a *chronic* disease.

11. The urine should be *fresh* for microscopical examination, as the micrococci will change hyaline casts into granular casts, or devour them entirely, in a short time.

12. Trommer's test should never be trusted to alone, if the amount of sugar is small.

13. The microscope gives better ideas of the exact condition of affairs in the examination of urine than the various chemical tests.—*Dr. H. F. Formad.*



URIC ACID



URATES



PHOSPHATES



TRIPLE PHOSPHATES



OXALATES



PUS-MUCUS-BLOOD



EPITHELIAL CELLS



TUBE-CASTS

URINALYSIS.

Albumin.	Render urine <i>slightly</i> acid—if not already so—by <i>Acetic</i> or <i>Nitric acid</i> ; boil, and add one-tenth bulk <i>Nitric acid</i> .	A white, cloudy deposit on boiling, which <i>remains</i> after addition of the acid. = <i>Albumin</i> .
Blood.	Heat the urine, then add <i>Caustic potash</i> , and heat it again.	A <i>dirty, yellowish-red</i> sediment, <i>blood-red</i> color by <i>transmitted light</i> = <i>Blood</i> .
Pus.	Let urine stand till sediment deposits; pour off super-natant fluid; add to remaining sediment equal volume <i>Liquor potassæ</i> .	Mix well, and a <i>viscid, gelatinous mass</i> , which pours like white of egg= <i>Pus</i> .
Mucus.	Add to <i>freshly voided</i> urine some <i>Acetic acid</i> ; if considerable turbidity appear, add <i>Hydrochloric acid</i> .	If turbidity disappear, the urine becoming clear on addition of the <i>Hcl</i> . = <i>Mucus</i> .
Bile.	Place <i>small</i> quantity urine and a few drops of red "fuming" <i>Nitric acid</i> side by side on porcelain dish, and allow them to gradually intermingle.	A play of colors—green, blue, violet, red, and yellow or brown = <i>Bile</i> .
Sugar.	Add to urine a few drops solution <i>Cupric sulphate</i> , then its own volume <i>Liquor potassæ</i> , and boil. (<i>Albumin must be absent</i> .)	A precipitate of <i>brick-dust-like</i> sediment= <i>Sugar</i> .
Sugar.	Take <i>two</i> specimens; to <i>one</i> add a bit of yeast; set side by side for twenty-four hours in temperature of 75° to 80° F., then take <i>specific gravity</i> of each.	If specimen which contained the <i>yeast</i> has <i>lower</i> sp. gr. than other= <i>Sugar</i> .
Urea.	Take equal parts urine and <i>Nitric acid</i> , mix in a test-tube and set aside.	Crystals of <i>Nitrate of urea</i> —visible to naked eye—indicate excess of <i>Urea</i> .
Uric Acid.	Take urine <i>q. s.</i> , add <i>Hydrochloric acid</i> , one-eighth part; set aside for twenty-four hours.	A precipitate of square crystals= <i>Uric acid</i> .
Phosphates.	Boil the urine; if there is a cloudy deposit, add one-tenth part <i>Nitric acid</i> .	If the urine <i>clears up</i> on addition of the acid= <i>Phosphates</i> .
Chlorides.	Slightly acidulate urine with <i>Nitric acid</i> , and add few drops solution <i>Nitrate of silver</i> .	Clumpy, white precipitate= <i>Chlorides</i> .

EXPECTATION OF SICKNESS.

The following table gives the expectation of life and the *expectation of sickness*, for the *adult male*. The amount of sickness increases with each year of life. The young man of twenty-one is ill one-half week a year, while the man of sixty is ill two weeks and three-quarters on the average.—*Dr. Cl. T. Campbell (Pop. Sci. Mon.)*.

Age.	Expectation of life — years and decimals	Expectation of sickness for that year — weeks and decimals.	Age.	Expectation of life — years and decimals.	Expectation of sickness for that year — weeks and decimals.
21 ...	41.5	.450	41....	27.4	.763
22....	40.8	.455	42....	26.7	.803
23 ...	40.2	.460	43....	26.0	.843
24 ...	39.5	.465	44 ...	25.3	.885
25 ...	38.8	.470	45 ...	24.5	.930
26 ...	38.1	.476	46....	23.8	.980
27....	37.4	.483	47....	23.1	1.035
28 ...	36.6	.491	48 ...	22.4	1.095
29....	36.0	.499	49....	21.6	1.166
30....	35.3	.509	50....	20.9	1.230
31 ...	34.6	.520	51....	20.2	1.308
32....	33.9	.532	52....	19.5	1.396
33 ...	33.2	.545	53....	18.8	1.494
34 ...	32.5	.560	54....	18.1	1.604
35 ...	31.8	.578	55....	17.4	1.730
36....	31.1	.599	56....	16.7	1.875
37....	30.3	.624	57....	16.0	2.040
38....	29.6	.653	58....	15.4	2.230
39 ..	28.9	.686	59....	14.7	2.450
40....	28.2	.723	60....	14.1	2.700

VITAL CAPACITY.

Definition.—The capacity of the lungs, in cubic inches of air, as measured by the spirometer.

The *vital capacity* varies according to *sex, height, weight, age, and disease*.

Sex.—The vital capacity of man exceeds that of woman, of same height, by about thirty-eight inches.

Height.—There is an increase of eight cubic inches in vital capacity for every inch in height between five feet and six feet.

Weight.—Excess in body weight is associated with diminished capacity in the proportion of about one cubic inch per pound excess.

Age.—From thirty to sixty years the vital capacity decreases nearly one and one-half cubic inches per year.

Disease.—In lung diseases the vital capacity is always diminished, and bears a certain relation to the extent of the lesion.

TABLE

GIVING VITAL CAPACITY OF MALES AND FEMALES, AT DIFFERENT HEIGHTS.

FEET.	INCHES	M.	F.	FEET.	INCHES.	M.	F.
4	7	126	88	5	4	198	160
4	8	134	96	5	5	206	168
4	9	142	104	5	6	214	176
4	10	150	112	5	7	222	184
4	11	158	120	5	8	230	192
5	0	166	128	5	9	238	200
5	1	174	136	5	10	246	208
5	2	182	144	5	11	254	216
5	3	190	152	6	0	262	224

Of twelve phthysical patients examined, those who had *lost* over three-tenths of their vital capacity, only three lived longer than four months, as shown by the following table:

PATIENT.	LOST.	SURVIVED.	PATIENT.	LOST.	SURVIVED.
No. 1	4-10	12 ds.	No. 7	4-10	4 ms.
" 2	5-10	8 ms.	" 8	3-10	8 "
" 3	4-10	2 "	" 9	3-10	4 "
" 4	2-10	6 "	" 10	3-10	3 "
" 5	4-10	2 wks.	" 11	3-10	2 "
" 6	6-10	2 "	" 12	3-10	3 "

Phthisis.—To examine sputum for elastic fibers, mix it with soda solution (R *Liquor Sodæ*, ʒj., *Aqua*, ʒij. M.) and boil five minutes. Then dilute with equal quantity distilled water, and pour into a flat porcelain vessel. The particles suspended in the water may be taken out and examined under a microscope. The fibers are brown, slightly reticulated, and a fraction of a millimeter in length.

ARRANGEMENT OF THE TEETH.

Temporary Teeth, - -	Upper Jaw	Molars.	Canine.	Incisors	Canine.	Molars.	} 20		
		2	1	4	1	2=10			
	Lower Jaw	2	1	4	1	2=10			
Permanent Teeth, {	Upper Jaw	Molars.	Bicuspsids.	Canine.	Incisors.	Canine.	Bicuspsids.	Molars.	} 32
	3	2	1	4	1	2	3=16		
	Lower Jaw	3	2	1	4	1	2	3=16	

PERIODS OF ERUPTION OF THE TEETH.

TEMPORARY TEETH.

6th or 7th month,	two middle incisors.
9th	“ two lateral incisors.
12th	“ first molars.
18th	“ canines.
24th	“ two last molars.

PERMANENT TEETH.

6th or 7th year,	the four anterior or first molars.
7th	“ two middle incisors.
8th	“ two lateral incisors.
9th	“ first bicuspid.
10th	“ second bicuspid.
11th to 12th	“ canines.
12th to 14th	“ second molars.
17th to 21st	“ last molars or “wisdom teeth.”

Early closing of the fontanelles indicates early dentition, and *vice versa*.

The teeth of rachitic children are about one month late.

The “wisdom teeth” are the last to come and the first to go.

Children have been born with teeth (New York Medical Journal, Vol. xxii, p. 444). Richard III is said to have been born with teeth. Cases are recorded where adults never cut teeth (Boston Medical Journal, March 6th, 1879, p. 183). A man said to be over one hundred years old, cut a complete front set of teeth (German “*Ephemerides*,” dec. ij. ann. 3, p. 57). Complete *third sets* have been cut.

TEMPERATURE.

1° Centigrade = 1.8° Fahrenheit.

Rule.—To convert Centigrade into Fahrenheit, multiply by 1.8 and add 32.

Example.— $37^{\circ}\text{C.} \times 1.8 + 32 = 98.6^{\circ}\text{F.}$

Rule.—To convert Fahrenheit into Centigrade, deduct 32 and divide by 1.8.

Example.— $104^{\circ}\text{F.} - 32 \div 1.8 = 40^{\circ}\text{C.}$

EQUIVALENTS.

F.	C.	F.	C.	F.	C.
97.0°	= 36.1°	100°	= 37.7°	104°	= 40.0°
98.0°	= 36.6°	101°	= 38.3°	105°	= 40.5°
98.6°	= 37.0°	102°	= 38.8°	106°	= 41.1°
99.0°	= 37.2°	103°	= 39.4°	107°	= 41.6°

An increase of one degree Fahr. above 98° corresponds with an increase of ten beats of the pulse per minute.

If, in the first week of a *supposed* case of typhoid, the temperature fall to normal, for however short a space of time, it is not typhoid.

Average temperature in health, 98.6° F. (37°C.). In rectum and vagina it is 0.9° to 1.3° F. higher. The daily range rarely exceeds 1.8° F. (1°C.) above or below the average. The axillary temperature may *fall* to 97° F. without collapse, or *rise* to 100° F. without fever.

In an instance of injury to the spine after a fall, reported by Mr. Teale to the Clinical Society (London Lancet, March, 1875), the young lady lived, though the temperature reached above 122°, and ranged for days between 112° and 114° F.—*Da Costa*.

HYPODERMIC MEDICATION.

Select for injection, flexor side of arm, over biceps muscle, or abdomen, near umbilicus. Pinch up fold of integument between thumb and forefinger, insert point of needle well beneath integument, inject slowly, withdraw carefully. As a rule, not more than *one-half usual dose*, as given by the mouth, should be injected.

TABLE OF DOSES.

Muriate of Morphine, - - - - -	gr. $\frac{1}{8}$ to $\frac{1}{2}$
Sulphate of Morphine, - - - - -	gr. $\frac{1}{8}$ to $\frac{1}{2}$
Sulphate of Atropine, - - - - -	gr. $\frac{1}{120}$ to $\frac{1}{30}$
Strychnine, - - - - -	gr. $\frac{1}{120}$ to $\frac{1}{30}$
Sulphate of Soda, - - - - -	grs. 2
Sulphate of Quinine, - - - - -	grs. 2 to 4
Squibb's liquor of Opium, - - - - -	gtt. 5 to 40
Magendie's solution, - - - - -	gtt. 3 to 20
Tincture of Hyoscyamus, - - - - -	gtt. 10 to 20
Tincture Cannabis, - - - - -	gtt. 10 to 20
Ergot, Fl. Ext., - - - - -	gtt. 15 to 30

ATOMIZED FLUIDS FOR INHALATION.

The following drugs may be used in the form of spray. The dose mentioned is to be added to one ounce of water:

Acidum Carbolicum, - - - - -	grs. 1 to 2
Acidum Sulphurosum, - - - - -	fl. drs. 2 to 8
Acidum Tannicum, - - - - -	grs. 3 to 12
Alumen Exsiccatum, - - - - -	grs. 3 to 20
Aqua Laurocerasi, - - - - -	min. 5 to 20
Argenti Nitras, - - - - -	grs. 1 to 3
Borax, - - - - -	grs. 5 to 20
Extractum Belladonnae, - - - - -	grs. $\frac{1}{4}$ to 1
Extractum Conii, - - - - -	grs. 5 to 10

Extractum Cannabis Indicae, - - - - -	gr. $\frac{1}{4}$ to 1
Extractum Opii, - - - - -	gr. $\frac{1}{4}$ to 2
Ferri Ammonio-Sulphas, - - - - -	grs. 3 to 6
Hydrargyri Perchloridum, - - - - -	gr. $\frac{1}{8}$ to $\frac{1}{4}$
Liquor Arseniealis, - - - - -	min. 3 to 8
Liquor Calcis Saccharatus, - - - - -	fl. drs. 1 to 4
Oleum Terebinthinæ, - - - - -	min. 1 to 5
Potassæ Chloras, - - - - -	grs. 5 to 10
Potassæ Permanganas, - - - - -	grs. 2 to 4
Potassii Bromidum, - - - - -	grs. 2 to 10
Potassii Iodidum, - - - - -	grs. 2 to 10
Sodii Chloridum, - - - - -	grs. 5 to 40
Tinctura Ferri Perchloridi, - - - - -	min. 5 to 30
Tinctura Iodi, - - - - -	min. 1 to 15
Tinctura Opii, - - - - -	min. 3 to 20
Zinci Sulphas, - - - - -	grs. 3 to 15

Test for Chloroform.—When equal parts of *Purified Chloroform* and colorless, concentrated *Sulphuric acid* are shaken together in a glass-stoppered vial, there should be no color imparted to either liquid, or but a faint tinge of color imparted to the acid after twelve hours' standing; neither should there be any sensible heat developed at the time of mixing.

Chloroform, as it evaporates from bibulous paper, should give but little foreign odor, and the paper should be left *odorless* after evaporation. *Chloroform* should not be used for inhalation without having been subjected to these tests.

Iodoform.—To destroy the odor of, add three grains of *Cumarin* to a drachm of *Iodoform*. Mixing *Iodoform* with Peppermint oil also masks its odor.

Rubini's Camphor.—Equal parts by weight of *Camphor* and spirits of wine, 60 degrees over proof. The spirits will dissolve and hold in solution its own weight of Camphor.

Catgut.—To prepare chromicised catgut:—One part of *Chromic acid* is first added to five of water. One part of the solution thus made is then mixed with five of *Glycerine*. Steep the gut in this for a week, and it will be capable of resisting the action of the tissues for a fortnight.

Leeches may be kept for a long time in a jar of water to which has been added a very small quantity of a one-third solution of *Salicylic acid*.



Ice.— To keep in sick-room, tie a piece of flannel loosely over the mouth of the bowl, put the pounded ice in the nest formed by the depression as the cloth hangs down in the bowl, and cover with another piece of same material. In this way it will last throughout a warm night. Break bits off, as wanted, with a pin.

HARDENING BANDAGES.

Starch Paste.— Starch is stirred in cold water to a uniform, cream-like consistence, and then, constantly stirring, boiling water added to produce a clear, thickish mucilage.

Starch Bandages are made by drawing through this paste ordinary roller bandages, of strips of muslin.

Starch Splints.— Draw strips of pasteboard once quickly through hot water, then thickly smear both sides with the paste.

APPLICATION.— Pad recesses about joints with cotton-wool, apply moist flannel roller, lay starch splints over this, and then bandage with starch roller. Envelop whole with dry roller bandage.

Plaster of Paris.— Mix in porcelain dish, constantly stirring, pouring on sufficient water to make paste consistence of thick cream. It stiffens in five to ten minutes. To delay setting, add more water, or powdered borax; to hasten, use *hot* water, or add common salt.

APPLICATION.— Cover limb with dry roller bandage, then apply plaster bandage over this.

WEIGHTS AND MEASURES.

To learn to write prescriptions, in terms of *Grammes*, is really a very easy matter indeed, it being only necessary to bear in mind the following *approximate*

EQUIVALENTS:

1 Grain (gr.) equals .06 Gramme (Gm.);
 1 Drachm (ʒ) equals 4. Grammes (Gm.);
 1 Ounce (ʒ) equals 30. Grammes (Gm.); hence,

To convert Grains (or M.) into Grammes, *multiply by .06*;
 To convert Drachms (or fʒ) into Grammes, *multiply by 4*;
 To convert Ounces (or fʒ) into Grammes, *multiply by 30*.*

* More accurately, .065 (.06); 3.9 (4); 31.1 (30).

N. B.— Use an upright line in the decimal place.

EXAMPLES.

		Iodoform Powder.	Gm.
℞.	Thymol, - - - - (m j) - - - - -		06
	Iodoform, - - - (grs. xxx.) - - - - -		80
	Calamine, - - - - (ʒj) - - - - -		4
	Starch, - - - - (ʒj) - - - - -		30
Mix.			

Bromidia.

			Gm.
℞.	Ext. Cannabis Ind.,		
	Ext. Hyosciami, - - aa (grs. iiij.) - - - - -		18
	Brom. Potass., - - - - -		
	Chloral Hyd., - - aa (ʒvj) - - - - -		24
	Syrup simpl., - - - (ʒj) - - - - -		30
	Aqua pura, - - - - (ʒij) - - - - -		60
Mix.			

SIGNS OF DEATH.

1. The entire and continuous cessation of the *heart's action*. This must be tested by a *practiced* ear, using the stethoscope. Or, tie a ligature tightly about a finger; the part beyond the constriction will, if there be circulation, become bluish-red, while, where the ligature is applied, there will appear a narrow white band. If, during life, a little *Ammonia* solution be injected subcutaneously, a port-wine congestion is set up in the surrounding parts; no such redness results when the operation is performed on a dead body.

2. The entire and continuous cessation of *respiration*. *Test* by the surface of a cold mirror held over the mouth; if moisture condense, breathing has not ceased. Hold a light feather over the lips, to see if there be a current of air passing. Set a glass of water on the chest — motion, if present, will be indicated by the images of surrounding objects reflected from the surface of the water.

Six hours after cessation of signs of life, if the muscles do not respond to a strong electrical current, *life is certainly extinct*.

ARTIFICIAL RESPIRATION.

To be resorted to in *all cases* of suspended animation if the respirations fall below *ten to the minute*.

Remove all clothing from chest and arms. Clear mouth of mucus. Patient on back, with small, firm cushion, or roll of clothing, under shoulders. Pull tongue forward and secure it by string tied over tongue and under chin. Stand or kneel behind and at head of patient. Grasp the arms just above the elbows, and draw them gently and

steadily outward, upward, and backward, till they meet above the head, keeping them in that position for two seconds.



Then flex the arms at the elbows and return them slowly to the sides of the chest, and press the arms *firmly* against the chest, holding them there for two seconds. Repeat this process at the rate of *fifteen* or *eighteen* times a minute. When spontaneous respiration has become reëstablished, cease further effort, and proceed to induce circulation and warmth.



In changing operators do not miss a single movement. Occasionally blow a little of the vapor of *Ammonia*, or a little snuff, into nostrils. Persevere in this treatment for *hours*.

After breathing has been restored, promote warmth by rubbing limbs upward, with firm, grasping pressure, and energy, using flannels, handkerchiefs, etc. Continue the friction under the blankets, or over dry clothing. Promote warmth by the application of hot bottles, hot bricks, bladders of warm water, etc., to the pit of the stomach, armpits, between the thighs, to the soles of the feet. Provide at all times for a free supply of fresh air.

As soon as the patient can swallow give hot water, by the teaspoonful, and follow it by wine, diluted brandy, or coffee. Put him in a warm bed, and encourage a disposition to sleep.

TRANSFUSION.

To support a patient until transfusion can be performed — keep the head low; raise the limbs; make friction from the distal ends toward the body, and then apply snug bandages about the limbs up to the body. Gently, but firmly, kneading

the abdomen with the hands (if no wounded or diseased condition of the part prohibit) will drive the blood to the heart.

The object to be attained is to fill the blood-vessels, and get up *vascular tension*, so that the heart will have something to contract upon. For this purpose use the

Solution of Schwartz.

℞. Distilled water, 100° F., - 2 pints.
Common salt, - - - - - 1½ drachms.
Liquor sodæ, - - - - - 20 drops. Mix.

Select *median basilic vein* at elbow, or *internal saphenous*, in front of internal malleolus. The collapsed vein is sometimes hard to find — cut down upon it, expose it freely, and pass two ligatures under it. With one ligature, tie the vein at the exposed portion which is nearest the hand or foot; push the other ligature to the other end of the wound.

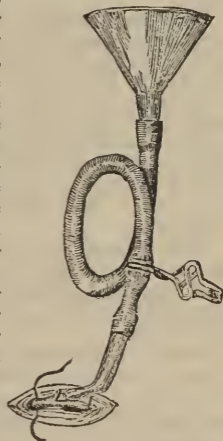
Open the vein by raising the upper wall with a fine pair of toothed forceps, beneath which an oblique slit is to be made with scissors, so as to make a small, flap-like opening. Raise the flap, and pass in the bulbous point of a canule (glass, vulcanite, or silver), directed toward the center of circulation. Tie this in the vein with the second ligature.

Have ready a glass funnel, to which is attached a foot of rubber tubing, with the *canule* at the other end. Have the tube guarded by a *clip*. Pour the *Solution* into the funnel; open the clip, and let the *Solution* start from the mouth of the canule, when the clip must be shut, and the point immediately introduced into the vein. Now open the clip, raise the funnel and the patient's arm, and the *Solution* will be forced into the vein by hydrostatic pressure.

Admit *no air*. A few small bubbles of air do no harm — the quantity to cause death must be considerable. Inject no clots or foreign particles, which may act as *emboli*. Keep the *Solution* in a clean, warm, glass vessel.

Inject slowly. Quantity — a half-pint to a pint. If signs of dyspnoea appear, stop the injection by lowering the funnel, and wait for it to subside. During process keep *Solution* warm by wrapping funnel with hot flannels.

As soon as the funnel is nearly empty, withdraw the canule from the vein, apply a compress, and treat as simple wound.



POISONING.

EMETICS.

Apomorphia.—Solution in water, 1:50; inject five to ten drops hypodermically. This is the most *prompt* and *efficient* emetic known.

Ipecacuanha.—Powdered, thirty grains in water.

Sulphate of Zinc.—Thirty grains in water; repeat if necessary. Prompt and safe.

Sulphate of Copper.—Five to ten grains dissolved in water.

Mustard.—A tablespoonful in a half pint of warm water.

Common Salt.—Two tablespoonfuls in a half pint of tepid water.

ANTIDOTES.

For Opium.—*Atropia sulph.*, one-fortieth grain, or *Tr. Belladonna*, fifteen drops, repeated in fifteen minutes if necessary. Strong coffee, *ad lib.*

For Arsenic.—*Dialyzed iron*, ounce doses frequently repeated. *Hydrated peroxide of iron*, give *ad lib.* Iron rust.

For Strychnine.—*Chloral*, thirty grains, repeated if necessary; *Bromide of potassium*, $\bar{\text{z}}\text{ss}$.; *Animal charcoal*, *ad lib.*; *Tannic acid*, *ad lib.*; *Chloroform*; *Ether*; *Nitrite of amyl*, by inhalation.

For Acids.—Lime water, *ad lib.*; chalk and water; *Magnesia*, mixed in water; *Ammonia* and water, $\bar{\text{z}}\text{j}$ to $\bar{\text{z}}\text{viiij}$.; ashes; plaster from the wall; tooth powder, in water; soap and water.

For Alkalies.—Vinegar, freely; *Acetic acid* and water; lemon juice; *Muriatic acid*, freely diluted with water; any dilute acid.

For Narcotics.—Coffee, *strong*, given freely; *Nitrite of amyl* by inhalation; *Ammonia*; galvanism; stimulants.

Multiple Antidote.—R. Saturated solution *Sulphate of iron*, $\bar{\text{z}}\text{ijss}$; water, $\bar{\text{z}}\text{xx}$; *Calcined magnesia*, $\bar{\text{z}}\text{ij}$; *Animal charcoal*, $\bar{\text{z}}\text{j}$.

Keep *Iron* solution separately, and the *Magnesia* and *Charcoal* mixed in a bottle of water. When required for use, pour all into bottle together, and *shake*. Give *ad lib.*, a wineglassful at a time.

This is a perfect antidote to *Arsenic*, *Zinc*, and *Digitalis*; it delays the action of *Salts of copper*, *Morphine*, and *Strychnine*, and slightly influences *Salts of mercury*.

Stimulants.—Wine, whiskey, brandy, *Ammonia*, tea, coffee, *Ether*.

Instruments.—Stomach pump; hypodermic syringe; soft-rubber catheter; enema syringe.

GENERAL DIRECTIONS.

Emetic.—Give that emetic which can be *most speedily* obtained. If it be a *corrosive* poison, give *copious* draughts of *demulcent drinks*, followed by an emetic, and the appropriate antidote. If the emergency be great, and no emetic at hand, give copious draughts of tepid water, even though it be dirty or greasy; then run the finger down the throat, to excite vomiting. The action of an emetic is facilitated if *large* quantities of fluid be swallowed.

Depression.—If present, must be combated by *stimulants*, warm application to the extremities, friction, galvanism, and, if the respirations fall below *ten per minute*, *artificial respiration* must be employed. *Catheterize bladder* in prolonged cases.

Battery.—One pole at the side of the neck, the other over pit of stomach, or muscles of the chest. Or, touch the two poles to different attachments of the muscles of the chest, using *strong* current, sufficient to excite pain, and produce efforts at crying.

Flagellation.—In poisoning with *narcotics*, to combat the *depression*, and keep patient from sinking into fatal *stupor*, slap the skin with wet towels, spat the skin sharply, rub the soles of the feet with a stiff hair brush; make every effort to *rouse* him. *Walking* the patient only adds *exhaustion* to stupor—better lay him on a lounge and use *flagellation*.

Douches.—To aid in *rousing* when there is *stupor* and *depression*. dash *cold* and *warm* water alternately, upon the head and chest. In apparently hopeless cases, two or three *sharp* blows on the chest, delivered in quick succession, will sometimes restore the heart's action.

Stimulation.—Alcoholic stimulants may be used if the poison is *not a narcotic*. *Coffee* may be employed as a stimulant in *Belladonna*, *Opium*, and other narcotic poisoning; give an *enema* of a pint of hot, *strong* coffee. *Ammonia* may be given by inhalation, or by injection into veins. *Strong tea* is an excellent stimulant, and it also antidotes many poisons; give by the stomach, if possible. Whiffs of *Ether*, by inhalation, will stimulate the heart's action.

Demulcents.—In cases of poisoning by *corrosive* substances, give, after the administration of the antidote and emetic, *large quantities* of *mucilaginous* drinks; preferably white of egg and water.

Demulcent Drinks.—Milk; white of an egg and water; oil; linseed tea; gruel; flour and water; boiled starch. Give in *large quantities*.

KIND OF POISON.	TREATMENT.
Unknown.	{ Provoke <i>repeated</i> vomiting; Give <i>demulcent</i> drinks; Multiple <i>antidote</i> ; Stimulate, if necessary.
Opium, Morphine, Laudanum, Chloral.	{ Provoke <i>repeated</i> vomiting; Give strong <i>coffee</i> , etc.; Inject <i>Belladonna</i> ; Rouse by flagellation; Artificial <i>respiration</i> .
Arsenic— <i>Paris Green</i> , <i>Scheele's Green</i> .	{ Provoke <i>repeated</i> vomiting; Give dialyzed <i>Iron</i> , etc.; Give dose <i>Castor oil</i> ; Secure <i>rest</i> ; Stimulate, if necessary.
Strychnine, } Picrotoxine. }	{ Provoke <i>vomiting</i> once or twice; Give <i>purgative</i> ; Give <i>Chloral</i> , etc.; Secure <i>absolute quiet</i> .
Acids— <i>Sulphuric</i> , <i>Nitric</i> , <i>Muriatic</i> , <i>Oxalic</i> , <i>Carbolic</i> .	{ Give an <i>alkali</i> ; Provoke <i>vomiting</i> ; <i>Demulcent</i> drinks; Stimulate, if necessary.
Alkalies— <i>Ammonia</i> , <i>Soda</i> , <i>Potash</i> , <i>Lye</i> .	{ Give an <i>acid</i> (vinegar): Provoke <i>vomiting</i> ; <i>Demulcent</i> drinks; Stimulate, if necessary.
Corrosive Sublimate } Tartar Emetic. }	{ Provoke <i>repeated</i> vomiting; Give <i>strong tea</i> , freely; Give raw <i>eggs</i> and <i>milk</i> ; Give dose <i>Castor oil</i> ; Stimulate, if necessary.
Phosphorus.	{ Provoke <i>vomiting</i> ; <i>Sulphate of copper</i> , sol. grs. iij, every 5 ms., till emesis; <i>Epsom salts</i> , ℥ss.; No oils or fats.
Nitrate of Silver. } (Lunar Caustic.) }	{ <i>Strong solution salt</i> and water, <i>very freely</i> ; Provoke <i>repeated</i> vomiting.

KIND OF POISON.	TREATMENT.
Sugar of Lead.	{ Give <i>Epsom salts</i> repeatedly; { Provoke <i>repeated</i> vomiting; { Give <i>demulcent</i> drinks; { Give dose <i>Castor oil</i> .
Aconite.	{ Provoke <i>vomiting</i> ; { <i>Stimulants</i> , freely; { <i>Digitalis</i> tinct. gtt. xx, hypo- derm.; mustard over heart; { Artificial <i>respiration</i> .
Digitalis.	{ Provoke <i>vomiting</i> ; { Give strong <i>tea</i> ; { Give <i>stimulants</i> ; { <i>Recumbent</i> posture.
Belladonna, Stramonium, Hemlock, Toadstools, Tobacco.	{ Provoke <i>vomiting</i> ; { <i>Stimulants</i> , freely; { Hot, strong <i>coffee</i> ; { <i>Opium</i> , tinct., gtt. iij-v, or more; { <i>Cold</i> to head, galvanism, flag- ellation; { Artificial <i>respiration</i> .
Chloroform, Carbonic Acid Gas.	{ Abundance of <i>fresh air</i> ; { Pull <i>tongue</i> forward, <i>clear</i> the mouth; { Loosen clothing,— head <i>low</i> ; { Alternate <i>cold</i> and <i>warm</i> <i>douche</i> ; { Inhalations <i>Amyl nitrite</i> — <i>Am-</i> <i>monia</i> ; { ARTIFICIAL RESPIRATION!— <i>Bat-</i> <i>tery</i> .
Alcohol.	{ Stomach pump, or emetic; { <i>Ammonia</i> and water; { Battery and <i>flagellations</i> ; { <i>Cold douche</i> to head; { Artificial <i>respiration</i> .
Decayed Meats and Vegetables.	{ Provoke <i>vomiting</i> ; { Give <i>purgative</i> ; { Powdered charcoal, freely.
Glass.	{ If particles of glass have been swallowed, let the patient eat <i>large quantities</i> of bread crumbs, to envelop it—then give <i>emetic</i> . <i>Do not let it pass</i> <i>into the bowels</i> .

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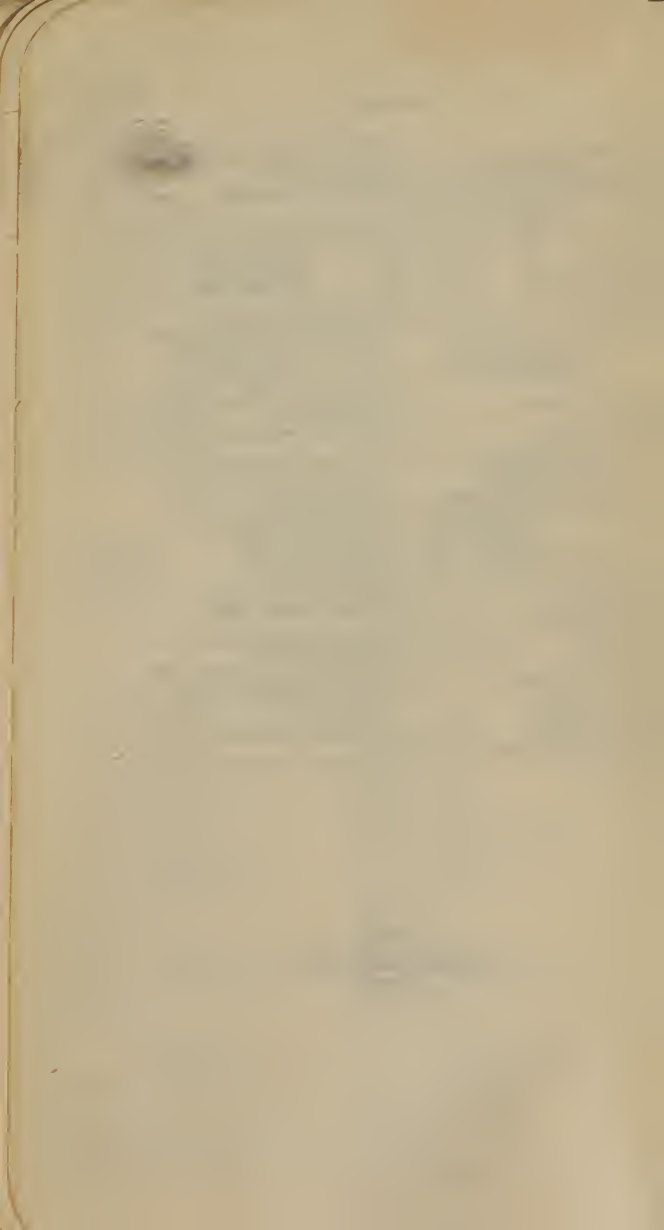
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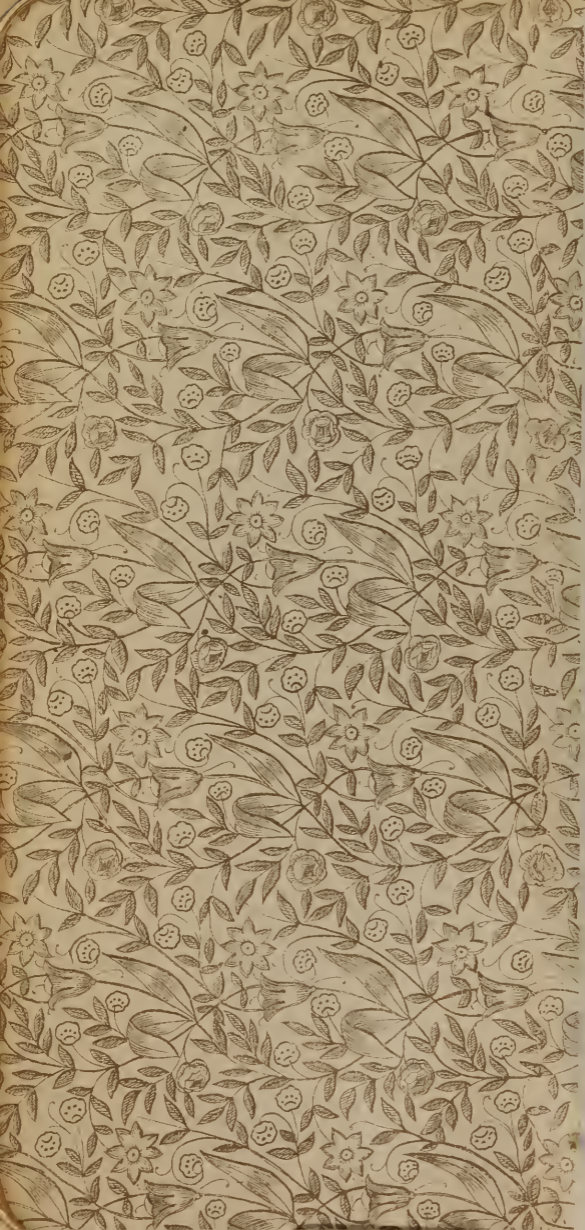
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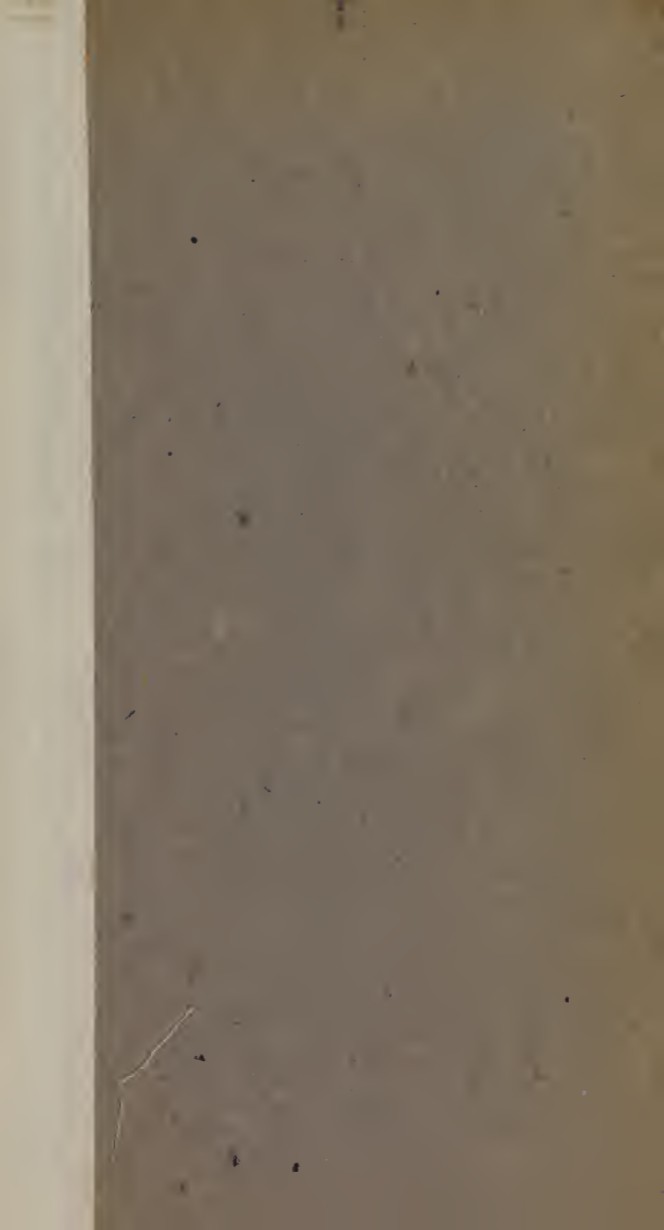
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