Ignatia for distress from emotional upsets and, of course, Ferrum Phos. for the tiresome nosebleeds.

From a production point of view success has shown itself in a reduction of lost working hours and in the same connection an increasing disposition on the part of workers to ask First Aid Room for "some of your wonderful pills" instead of the automatic absence for every small ailment. As a confirmed homoeopathist I find the increasing confidence in these remedies a cause of rejoicing.

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## A COMPLETED PROVING OF MENTHOL

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I began the proving of menthol in 1918 when I was Director of Constantine Hering Laboratory at the Hahnemann Medical College in Philadelphia. I completed a second proving in 1947 which lasted forty days.

Menthol has been used a great deal by the laity as an inhalent in acute nasal obstruction and as an anodyne in pruritis and various skin eruptions. Menthol, by its proving, is evidently a valuable remedy when used according to the law of similars.

Menthol is a mint camphor, a non-acid menthane alcohol; a crystalline stearopten from oil of peppermint, or of mint oils. It is soluble in alcohol, ether, bisulphide of carbon, oils and acetic acid, and it is very slightly soluble in water. It melts at 110° F. It may be fused or pressed into cones or pencils. Chinese and Japanese oils of peppermint are richer in menthol than the official oil.

I might mention some of the physiological actions which have been deduced from the pharmacological standpoint:—menthol in the frog paralyzes the spinal centers;

then the nerve trunks. Small doses excite, while large doses paralyze the heart and cause respiration to become shallow and slow. There is an irregular reduction of blood pressure and loss of sensibility, the animal growing quite cold. Binet recently showed that menthol was not eliminated by the lungs as at one time was believed to be the case. The sensation of cold produced by menthol when applied locally was shown by Goldschneider not to be due to actual lowering of temperature of the surface. In fact, the application of a solution of menthol, he found to be followed by a rise of two degrees C. Therefore, he attributed the sensation to the influence of the drug upon the peripheral nerves of sensation, an action quite independent, also, of evaporation. This can be corroborated by anyone exercising a little careful technique. It will be seen later on that the pharmacological investigations on the lower animals do not correspond very closely with the pure dynamic effects on man.

The following proving was conducted by myself in the Hering Laboratory assisted by ten male and two female provers. The actual time of this proving was fifty-two days, when the symptoms began to interfere with the students' work, and had to be discontinued. Some of the provers suffered persistent catarrhal and neuritic symptoms for four weeks before giving up, which will help to prove the genuineness of the symptoms. This proving was conducted along scientific lines, but according to the method described by Hahnemann. The students on the proving squad, besides given a thorough physical examination as devised by the Hering Laboratory, were also checked on their Army examination. Their day-books were carefully examined daily, as well as the provers themselves. Symptoms began from four to ten days after the beginning of the drug. The dosage was from an empirical tincture which I devised by dissolving two drams of menthol crystals in two drams of 95% alcohol. Dilutions were made from this tincture by Boericke and Tafel.

I used the 6th centesimal potency and the 2x. Symptoms of various types and degrees with various modalities were brought out by each preparation. The symptoms that I have recorded were pronounced and persistent in all provers who stuck to the end of the proving, and many have been confirmed clinically. We as homoeopaths, know each medicinal substance has an individuality, a unit of sensations and conditions; and by skilful application of this medicinal unit to the individual having a similar unity of symptoms and conditions, the sick are restored to health. Hahnemann says we must know the pure effects of medicine upon the healthy human being in order to confirm the 142d paragraph of the Organon, namely, "When a proper application of the homoeopathic remedy has been made, the acute disease which is to be cured subsides in a few hours, if recent; and in a few days if somewhat older."

Menthol does not produce such a vast array of symptoms, but it produces a few well defined symptoms with some slight change in tissue structure.

The General Pathogenic Range of Menthol—Menthol exerts its greatest action on the mucous membranes of the naso-pharynx, less intense on the gastro-intestinal tract and a quite marked action on the spinal-nerve plexus, producing various neuralgias and paresthesias; also irritation of the genito-urinary tract.

Menthol has proved curative in acute nasal catarrh, both anterior and posterior; acute catarrh of the eustachian tubes with otalgia and catarrhal deafness, pharyngitis, laryngitis, orbital and facial neuralgias, intercostal neuralgia, nausea, result of nervous or emotional excitement, nervous dyspepsia and diarrhoea and buccal exudates.

I will now give you a pure pathogenic effect of menthol upon the healthy prover in the prover's language.

Mind and Head—Menthol produces a dull-sleepy feeling with a sense of warmth and general oppression: mental confusion; frequent inability to grasp facts as usual;

a wearied feeling; light-headedness; dizziness on bending the head forward; occasional paroxysms of mental irritability; soreness of the scalp; a feeling of fullness associated with pressure in the frontal region; sore, bruised sensation at the exit of the supraorbital nerve, much worse over the left eye, occasionally going over to the right side. There is also a frontal headache; severe pains over the frontal sinuses, accompanied by nausea. The prover says, I have a sick headache; heaviness of the eyeballs; the frontal pains seem to descend into the eyeballs. This pain continued steadily in Mr. McLeary for two weeks.

A symptom continuing in several provers during most of the proving was as follows: Constant, dull, penetrating frontal and parietal headache, with a sense of fullness in the head, and worse from motion or bending of the head forward, accompanied by sensitiveness of the eye balls; twitching pain between the left eye and ear. A peculiar symptom developed on both sides of the face above the zygoma—twitching at times with numbness or anesthesia of the same region. The parts were very sensitive to touch after the sensation became restored. The supra-orbital neuralgia over the left eye was the most severe head pain recorded. Pains developed in the vertex of a throbbing character, worse after supper and worse moving about.

The Eyes—Dull, aching pain in the eyeballs coming on about 4 p.m.; pains around the eye-balls, encircling the orbits; heaviness in the eyeballs accompanied by frontal headache. At times the eyeballs feel compressed. There is also a dull throbbing pain in the eye, worse on the left side. This frequently is associated with the frontal headaches. Congestion of the eyes with a sensation as though they had been exposed to cold air.

The Ears—Sharp pains starting 1-½" behind the right ear, extending vertically downward as far as the right scapula; worse from pressure and motion. Dull, grinding pain in the right occiput, extending to the mastoid region, which is tender to touch; painful soreness back of the right

ear in the mastoid process, worse from motion or pressure; some swelling of the glands under the ear. This symptom continued nine days. Eustachian tubes feel blocked up with nondescript pain and some deafness. This has been verified. I have cured both catarrh of the eustachian tubes and posterior nares with menthol.

The Nose—Dull, stuffy feeling in the head and nose. Nasal catarrh developed in both anterior and posterior. It began with a white, clear discharge, always worse in the morning; frequent sneezing occurred; a great deal of postnasal dripping and as the proving was pushed, there developed a whitish viscid postnasal discharge, often with bloody streaks; also a thick, yellow nasal discharge. This was developed by the 2x. The local examination showed an irritated and inflamed mucous membrane of the whole nasopharyngeal cavity; a cold, dead sensation in the nose on deep breathing with some loss of smell. There seemed to develop more posterior nasal dripping than anterior; also a mild epistaxis was developed in two provers, and the nose was dry and stuffed.

The Face and Inner Mouth—The face became pale with a slightly jaundiced hue. After two weeks, several provers began to lose weight and looked bad, felt tired; after a rest of two or three weeks, they began to improve again, coming back wonderfully. They gained weight and lost the catarrhal symptoms. Little white patches and ulcers developed on the inside of the lower lip and buccal cavity. Herpes, or fever blisters also developed on the upper lip; these were very sore to touch. Laboratory examination was not done as the provers became impatient and had the spots touched up with tincture of iodine. Some of the patches looked like a false membrane. Thirst and dry mouth occurred; much water being taken at times.

The Throat—Tickling and irritability in the fauces; a constriction coming on daily about 1 p.m.; the fauces red and swollen; some cellular infiltration, but no true edema; difficulty in swallowing but without pain; tickling in the

lower posterior part of the throat was very persistent. The left fauces are red and swollen; the inspired air feels cooling. On examining the postnasal space, it was frequently found covered with various types of mucous; hoarseness developed but was not accompanied with any particular pain in the larynx.

The Respiratory Organs—Sharp pains in the precordium, continuing for an hour at a time; tearing pains; worse on deep breathing; soreness in the left chest wall; worse on deep breathing; sudden stabbing pains in the region of the heart on deep inspiration. The stabbing pains in the precordia radiated over the entire chest and continued for nearly three days. Menthol produces a very short, dry, non-productive cough, very incessant at times and is brought on by the peculiar cool feeling in the larynx, or tickling down in the fauces. Almost every effort to smoke a cigarette excited this cough and a sense of fullness in the chest was present. Both female provers developed an asthmatic type of breathing with congestion in the head; a violent throbbing as though the head would burst at the vertex, accompanied with depression and irritability. This lasted a short time but was entirely new to the provers.

The Stomach and Abdomen—A feeling of warmth in the pit of the stomach; also a heavy feeling with great flatulence, worse when the stomach is empty; a non-descript type of pain, with no physical findings, evidently a gastralgia. Nausea was most pronounced in the female provers which would last for a few hours and had no relation to eating or foods. The provers frequently desired sour things; this desire for sour things when satisfied would occasionally nd up with vomiting and purging and they all said they felt "bilious." This was accompanied with a fine tremor in the stomach and a sense of warmth or chilliness. If the nausea was very severe and the chilliness of long duration, diarrhoea would follow. Straining at the stool occurred and constipation actually developed for three days at a time in both sexes. Dull grinding and

cutting pains in the right and left inguinal region, worse finally on the right side, and worse in the evening. One prover suddenly complained of a dull grinding pain in the right inguinal region as if something were pulling downward.

Urinary and Sexual Organs-Sharp, burning pains in the meatus during urination; this came on about 5 p.m. It occurred in most provers after the drug had been administered for four weeks and continued sometime after the proving ceased. The urine continued very scanty for days. The urinary findings were, increase of urates and abundant mucous sediment. Neuralgic pains along the right spermatic cord with a crawling sensation on the scrotum. In the female organs, just before the menstrual flow began, there commenced a slight irritation at the vaginal orifice, presenting various types of paresthesia; as—a crawling, biting, tickling sensation, aggravated by scratching, and ameliorated by holding hot compresses of boric acid to the vulva. The provers had never experienced this before; it lasted for a week, or several days after the menstrual flow ceased. There was a backache with pains in the left ovary; occasionally, there were pains in both ovaries, but particularly worse in the left ovary and this was accompanied by a typical lumbar backache.

The Neck, Back and Extremities—The muscles of the neck feel stiff. Muscular pains in the right posterior cervical region; made worse by motion of the head; sharp, cutting, tearing pains in the left lumbar region, worse on deep inspiration; marked soreness in the lumbar muscles. This backache was persistent and developed in both female provers and was accompanied by pain in the left ovary. Twitching pains in the left elbow coming on daily between five and six p.m., leaving the elbow sensitive to touch; ends of fingers felt sore, and two provers developed panaritium along the finger nails.

Sleep and Fever—Disturbed sleep, particularly towards morning, evidently the result of postnasal dripping down

into the pharynx (I quote prover Mr. McLaren). Restless sleep, dull and sleepy when indoors. This occurred in students usually full of "pep." Sleepiness and weary feeling. Difficulty in getting to sleep.

Chill at 7 p.m. Also chilly during the night. Chill began the next day in the afternoon and continued more severe; then was followed by a spell of warmth. The temperature taken during the chilly stage was normal, with an increase of two degrees during the warm stage. After these chilly symptoms, there also developed some vasomotor disturbances of the skin, such as small pale spots of uticaria. Herpes developed on the skin.

This drug may be compared with many remedies. After studying the provers' symptoms and having to antidote symptoms at various times when the provers rebelled, I would suggest for the neuralgias and migraine, comparing aconite, kali bichromicum, kalmia, bryonia, capsicum, gelsemium, spigelia and prunus spinosa. These remedies always antidote symptoms when indicated.

In the nasal catarrh compare ammonium carb., corallium rubrum, kali bichromicum, kali muriaticum and the natrum salts.

I have offered my sincere gratitude to all the students of the Proving Squad, especially do I wish to publicly thank Messrs. Harold J. McLaren, John C. Wienski, Hosea, Briggs, Johnson, Lynch, Ziegler, Bohn and Bier for continuing, more or less, to the end of the proving. I am also indebted to my clerks, Dr. Leslie K. Fry and Dr. George Goeckler, and two nurses, who were faithful to the end.

I append a summary of Clinical Confirmations.

- (1) Back: Backache with pain in the left ovary.
- (2) Ears and Nose: Catarrh of the eustachian tubes and posterior nares; swollen glands under and in front of the ear. Hoarseness accompanying catarrh of the throat and eustachian tubes.
- (3) Lips: Fever blisters or herpes on the upper lip.

- (4) Liver: Billiousness, vomiting, purging, pain in bowels, vomited matter was bitter, containing bile, and an inordinate appetite for sour things.
- (5) Bowels: Constipation associated with cramp in the calves of the legs.

This task is now finished and I am putting the drug in the hands of the profession for the clinic test, and hope to enrich our Homœopathic Materia Medica by new confirmations in the future.

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## POLIOMYELITIS AND PROPHYLAXIS

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Whatever it was at one time, this is no longer an "infantile" paralysis. It has come to affect all ages. President Roosevelf fell a victim when in his forties. It is not a new disease. Murals from Egypt are reported showing withered limbs so typical of the end result of this disease. It is said that a skeleton of 3700 B.c. has been found in Egypt showing polio deformities. But it did not appear in epidemic form till about the middle of the last century.

Sir Charles Bell in 1836 recorded one of the first outbreaks. This was followed in 1840 by the German Dr. Heine's classical book, and he concluded that the spinal cord was involved rather than the brain. Then Dr. Medin described the various symptoms of rather a large outbreak in Sweden in epidemic form in 1868. He believed it to be an acute infectious fever. Dr. Wickman reported on one of Sweden's worst occurrences in 1905. He notes that