mouth. This does not allow nearly so much leakage of gas along the gag as a rubber facepiece.

Two or three breaths are permitted with the stopcock closed, and then it is pushed over to "No valves" during an expiration, the patient rebreathing throughout the whole period of induction. After a few breaths a short period of apnoea commonly occurs, after which the respiration soon becomes regular and stertorous, whilst the pupil first contracts and then begins to dilate. As soon as full anaesthesia is reached the Doyen's gag is opened, and after two more respirations the inhaler is removed and the operation proceeded with.

In a series of thirty consecutive cases the time of induction, from the opening of the valve to the removal of the mask, varied from 49 to 82 seconds, with an average for the series of 63 seconds; whilst the period of anaesthesia from the removal of the mask to the return of the cough reflex varied from 58 to 160 seconds, with an average of 115 seconds.

Throughout the whole period of induction of anaesthesia and of operation the patient's colour remains a rosy pink, whilst, after the initial struggle when the valve is opened, the pulse is slow.

In my opinion, the hyperoxygenation reduces the probability of haemorrhage, as there is never the slightest tendency to cyanosis with its concomitant congestion.

REFERENCES.

¹ Gwathmey: *Anaesthesia*, pp. 84, 85. ² Rosenthal and Berthelot: *Compt. rend.*, 136, 43. ³ Lotheissen: Aethylchlorid Sauerstoff Narkose, *Arch. klin. Chir.*, 1909, 91, 65.

THE DANISH TREATMENT OF ITCH.

BY

ALEXANDER CANNON, M.D. LEEDS,

TEACHER OF MORBID ANATOMY, UNIVERSITY OF HONG-KONG; PHYSICIAN,
COLONIAL MEDICAL SERVICE.

A GLANCE at the following summary will emphasize the importance of this treatment, which cures scabies in one day.

Summary of Facts.

1. This treatment has stood the test of time (1912-1929).
2. Certain cure is attained within twenty-four hours.
3. The treatment is ambulatory.
4. The cost of the ointment is not great.
5. Relief is rapid.
6. One single inunction suffices.
7. If made as directed the ointment will never produce any alkaline cauterization of the skin; and if used as described below no toxic symptoms will ever be manifest.
8. The hydrogen sulphide gas given off, which is the most active principle, will tarnish certain metals badly.

The prescription is complicated, and its preparation requires care and practice to ensure a perfect result. Marcussen discovered the cure in 1911, and Ehlers tried it, and made it known in 1912. Marcussen makes up the preparation as follows:

I. 1 kg. of sublimated sulphur is dissolved by heating it gently in 1 kg. of a 50 per cent. solution of potassium hydroxide, a clear yellow solution resulting.

II. 225 grams of vaseline and 225 grams of water-free lanoline are mixed with care, no heat being used.

III. To this mixture 375 grams of the solution of sulphur in potash lye (see I) is added.

IV. Fresh zinc hydroxide is prepared by mixing 28 grams of ZnSO₄ and 40 grams of a 20 per cent. sodium hydroxide. Then this is added to the ointment.

V. Liquid paraffin is added to make a total weight of 1,000 grams.

VI. 5 grams of benzaldehyde is added to check the somewhat disagreeable smell of sulphuretted hydrogen.

Remarks.

Ehlers and Marcussen state that whenever the ointment comes into contact with the skin it produces hydrogen sulphide, the "high" sulphides of potassium being the active principles upon which its activity depends. The adult mite is slain within half an hour of exposing the affected area of skin to this most powerful weapon. The eggs have more resistance, but in spite of this they are

killed within the allotted time for cure. Although it is advisable to disinfect the clothes, Lomholt of Copenhagen states that this is not necessary. The odour is unpleasant, but does not last much more than an hour.

The Procedure in Treatment.

The treatment is carried out in seven stages.

1. The patient takes an ordinary cleansing bath.
2. He then wipes himself thoroughly dry.
3. He applies the ointment to the whole of the body, except the head, by gentle rubbing only. Someone will assist him in anointing the back.
4. He waits for twenty minutes, to allow the application to soak in.
5. He then goes to bed, or does otherwise.
6. The next day, twenty-four hours after receiving the application of the ointment, the patient receives his second bath.
7. He puts on fresh underclothing, and walks away cured.

Notes on the Treatment.

Every patient speaks of its rapid soothing properties. No relapses have been reported in the last seventeen years, during which time many physicians have kept a watchful eye on the results of the treatment. Every day we get several new cases of itch, and these are cured before the next batch come in on the morrow. The economic aspect of this treatment speaks for itself.

In a typical case the patient said that within an hour his suffering from intolerable itching ceased, and within a day his disease was no more. Needless to say, we use this as a routine treatment for scabies. Other skin diseases have been treated with this application, but without any striking results; so at present, after its successful employment for seventeen years, it should be described as essentially the treatment of scabies or itch.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ACTINOMYCOSIS OF THE TONSILS.

ACTINOMYCOSIS of the tonsils is a rare condition. For this reason I venture to report the following case.

Miss X, aged 19, was seen by me at the hospital in the early part of last year. She had been sent by her doctor for an opinion about her throat, which had been troubling her for some time. Examination revealed somewhat enlarged faucial tonsils, with a whitish fungus-like growth projecting out of almost every follicle. In addition, there were similar patches on the base of the tongue and lingual tonsils. The glands in the neck were not enlarged, and the patient did not feel ill. Palpation of the tonsils revealed the fact that they were very hard, and that the surface was rough—just like the surface of a nutmeg grater.

I provisionally diagnosed the case as being probably due to involvement by a streptothrix, and advised that the faucial tonsils be removed and that the other patches be curetted. I subsequently performed the operation as suggested, and sent the tonsils for microscopical examination, when it was found that the condition was due to actinomycosis.

The faucial tonsillar bed healed perfectly, and has remained quite healthy and free from recurrence. I had to use an electric cautery on the patches on the base of the tongue and lingual tonsils to clear up the condition in that situation. It is now quite free from patches and in a healthy state.

The operation was performed in May, but the patches which were cauterized did not disappear until about one month ago. I have had the girl examined for foci in other parts of the body. The result of such examinations has always been negative. Potassium iodide has been administered during the whole of the treatment.

During the summer of 1928 Miss X, who lives in a country district, used to take walks in the fields and pick up pieces of straw and grass and chew them. In my opinion this is the source from which she has been infected.

Interesting points in this case are: (1) that the tonsils and base of the tongue only were affected, the teeth are perfectly normal; (2) that there has been no apparent systemic infection; (3) that as a result of treatment the disease has apparently been eradicated.

Manchester.

VERNON SMITH, M.D.