A third theory is that carrying heavy loads up and down hills may cause thyroid enlargements. Many Bhutias earn their livelihood in this way, but the sepoys do no such work, and are by no means exempt.

The liability to goitre is evidently much less before the age of puberty than later; 55 per cent. of children below 12 had no goitre, yet they had lived all their lives in a malarious district. The sepoys, who had only been here twenty months, were attacked as above.

Is it not possible that goitre may spring from an animal or vegetable rather than from a mineral cause? Why should limestone or iron cause goitre? Many people take iron for months and get no goitre, and if every baby that drank lime water developed goitre some other diluent for milk would have been discovered long ago.

Why, again, should goitre be affected by the seasons, if it be due to a mineral poison? Personally, I believe it is due to an animal poison—say of an amoeba type, and resembling the malaria organism. We see the enlargement of the spleen against the malarial organism, the lymphatic glands against streptococcus or the tubercle bacillus; why should not the same process go on in the thyroid gland?

An organism with a selective power against the thyroid gland or its secretion enters the blood; for a time the system battles against it, and in a certain number of cases successfully. In other cases the organism is too strong for the phagocytic resources of the system, and we have the thyroid enlarging (? hyperplasia) in an effort to combat the poison. This latter argument is, I think, strengthened by the results of treatment. The ordinary endemic or parenchymatous goitre may be treated in two ways: (1) By counter-irritation with iodine or red iodide of mercury; (2) by thyroid feeding.

The first of these methods might be applied to almost any (non-inflammatory) swollen gland. It simply means counter-irritation, a larger blood supply to the part, and consequently increased activity and phagocytosis on the part of the gland, plus a certain "alterative" action from the mercury or iodine.

Thyroid feeding is also an effectual method of treatment in most cases of parenchymatous goitre. I have records of sepoys' neck measurements diminishing from $\frac{1}{4}$ to $\frac{1}{2}$ an inch weekly in circumference under two thyroid tabloids daily. These were B. and W. 5-gr. tabloids. How does this come about? Simply, I take it, that the goitre poison is overcoming gradually the resistance of the system; the thyroid hypertrophies in an attempt to overcome the poison; additional resisting power is administered in the shape of thyroid glands; with this help the system can keep the poison in check, and the thyroid diminishes to its normal size. When the thyroid feeding is stopped the gland may again enlarge. All these facts tell in favour of an organismal as opposed to a purely mineral theory.

It is also, I believe, recognised that epidemics of goitre occur at times in the Punjab and North-Western Provinces. I have no literature available here on the subject, but a sudden outbreak seems to be more associated with a specific organism than with a mineral poison, which would probably take some time to act, and then act slowly.

These views as to etiology are advanced with the utmost diffidence. I have no microscopical or bacteriological data with which to support them, but taken in conjunction with the above statistics, a bacterial theory seems much more likely to be correct than does a mineral one.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, October 3rd, 1896, p. 974.

NOTES OF A CASE OF CHRONIC SUPERFICIAL DISSECTING GLOSSITIS.*

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As cases of the kind about to be described are not very common, possibly the sketch and description will not be uninteresting.

* Read at the annual meeting of the Midland Branch, British Medical Association, at Leicester.

H. C., aged 21, a non-smoker, first consulted me as to the state of his tongue in November, 1896. There was no history or appearance of syphilis. He had suffered in the same way with his tongue for some five or six years past. It improved and then relapsed. He was not addicted to drink, taking occasionally only a little beer, but he had had attacks of dyspepsia, and when these were on, the tongue was sore also, as might very naturally have been expected. The tongue was large, and gave the impression of being swollen, the surface smooth (save for the furrows to be noted presently) and glossy red. On each side of the median fissure, however, there were whitish leucomatous patches on the dorsum and two or three at the tip of the tongue, looking, to use the late Mr. Marrant Baker's expressive phrase, as if they had been touched with nitrate of silver. There were deepish fissures running in for half an inch or so from the edge of the tongue; these though not ulcerated were extremely tender, as was the rest of the surface of the tongue. His teeth were fairly good, he was rather anæmic, and, as was mentioned above, subject to indigestion. His diet was reduced to a very simple one, allowing no condiments or salt meat, or anything, in short, which could irritate the tongue, and he was permitted to take a little claret. He was put on a mixture of potassium chlorate, tincture of nux vomica, and gentian for over two months; then he took for another month a mild pre-

Photographed from a painting by Dr. E. Mansel Sympton.

paration of iron. In local application he had glycerine of borax as a mouth wash. Later his tongue was painted with a solution of chromic acid (gr. x-3j), and for about eight or nine times with a solution just double the strength.

The improvement, though slow, was very marked. His tongue became much smaller, the islands of leucoma (?) vanished, and the cracks closed. In less than three months' time he had almost a normal tongue.

The late Mr. Baker did not allude to any fissures in his admirable article on the Diseases of the Tongue in Heath's *Dictionary of Surgery*, and these fissures do not seem so deep as those in Wunderlich's true "dissecting glossitis" but I think the chronicity, the superficial nature of the complaint, and the fissuring of the tongue may justify the conglomeration of names at the head of this note.

MEMORANDA: MEDICAL, SURGICAL, OBSTETRICAL, THERA- PEUTICAL, PATHOLOGICAL, Etc.

TONSILLITIS ACCOMPANIED BY RAPIDLY FATAL PYÆMIA.

ON August 9th, L. B., aged 17, a strong, healthy girl, went into service in a village a few miles from her home, and on August 13th developed a sore throat, accompanied by pains in the back and limbs, but continued to do her work until Sunday, the 15th, when, though the throat was no worse, the pains in her limbs had become so severe, that, as she said, she had to go upstairs on her hands and knees.