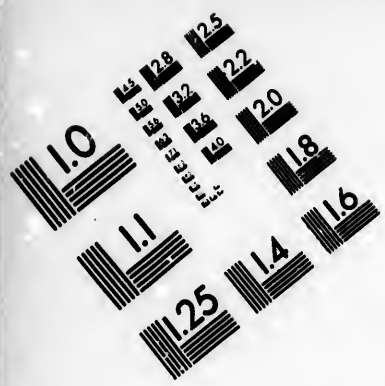

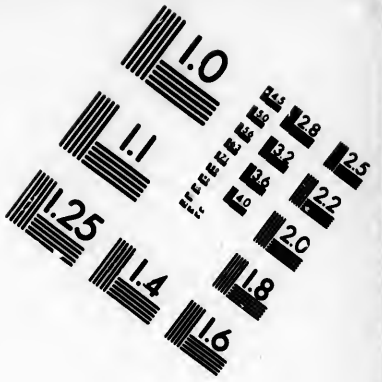

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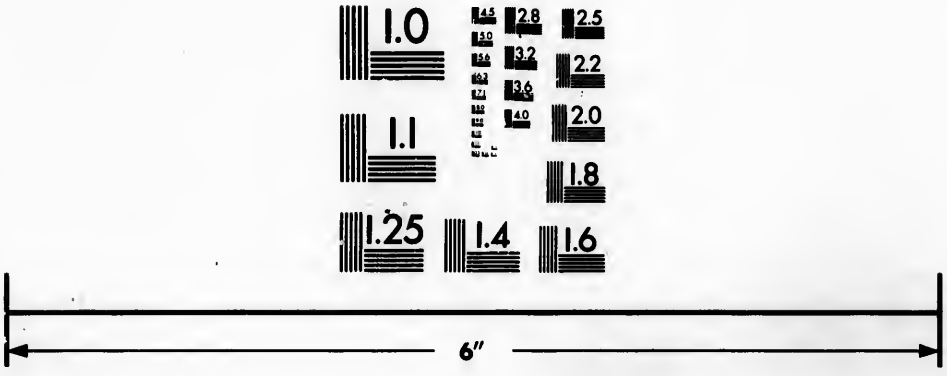

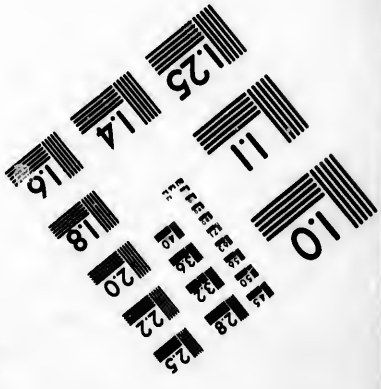

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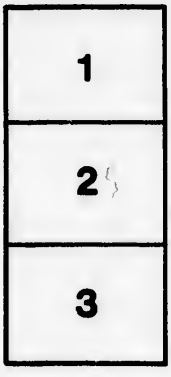

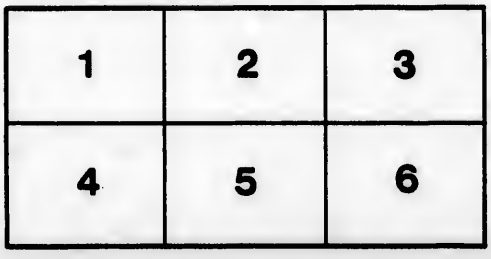

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SCROFULOUS GLANDS.

G. E. FENWICK.

FROM

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NOVEMBER, 1886.

SCROFULOUS OR TUBERCULOUS GLANDS OF THE NECK.

By Geo. E. Fenwick, M.D.,
Surgeon to the Montreal General Hospital; Professor of Surgery, McGill University.

(*Read before the Canadian Medical Association, at Quebec, August*, 1886.)

The lymphatics of the neck are frequently affected by simple inflammation from cold. They sometimes become sympathetically enlarged from some local irritation; but what are known as scrofulous glands are so intimately connected with tubercle, if, indeed, they are not actually tuberculous, that they demand a separate consideration.

The term scrofulous has never appeared to hold any very definite signification. It certainly cannot, *per se*, be regarded as a positive state of diseased action known or indicated by a certain set of signs and symptoms, but is rather a state of the system generally, a peculiar constitutional condition or diathesis, acquired or inherited, which subjects the individual to the invasion of certain well-marked affections.

The term scrofulous, as applied to enlarged lymphatic glands, does not indicate the actual condition of change in the gland structure. It is true that enlarged and caseating glands are constantly met with in persons suffering from what is termed scrofula or struma, but this state of enlargement and alteration in texture has long been recognized as due to or depending on the presence of tubercle. To discuss the history of tubercle would be foreign to my purpose, and would occupy more time than I have at my disposal. First definitely described by Bayle in the early part of this century, various theories and opinions have from time to time appeared. The discovery by Koch in 1882 or '83 of what he named the "tubercle bacillus," and which he has demonstrated as existing in all tubercle, has completely revolutionized the views tacitly admitted by pathologists as to the actual nature of this change in the tissues. Koch believes the bacillus to be the *materies morbi* of tubercle, so

that the views held by Virchow that it requires evidence of the presence of miliary tubercle in connection with cheesy products to constitute true tuberculosis must be greatly modified, and it is now held that all inflammatory changes, whether in a state of cheesy degeneration or not, if the bacillus of tubercle can be therein demonstrated, must be regarded as tuberculous. While I have confined my observations to tuberculous glands, I must state that there are many other structures which are liable to the invasion of the tubercle bacillus, and which are recognized as properly coming under the heading, not of scrofulous degeneration, but of tubercular infection.

In discussing the subject of the liability of the various tissues and organs of the body to the invasion of tubercle, Volkmann holds that the evidence of tuberculosis depends (1) on its well-known structural appearance, (2) on the presence of the tubercle bacillus, and (3) on the positive results given by experimental inoculation. There is scarcely any texture of the body which is exempt from the invasion of tubercle, and it would seem that the lymphatics are specially open to attack, since their very function, as it were, exposes them to infection. Clinical experience points to the liability of the tissues to this invasion of the bacillus. While this great fact is borne out by every-day observation, it is equally true that a peculiar aptitude or condition of the system must exist to favor the occurrence of the disease known as tuberculosis. We may believe that many, if not all, are occasionally exposed to the influence of the materies morbi of Koch, but it would appear that a suitable soil is essentially necessary in which the germ can develop and give rise to the various changes that have been noticed in its wake. To this state of special liability to the invasion of tubercle—to this peculiar diathetic condition the term scrofulous may be applied with some definite signification.

Of all the superficial glands, those of the neck exhibit a special aptitude to the invasion or development of tubercle. The glands of the axillary and inguinal regions are rarely affected. In the neck, the most favored localities are the submaxillary, the glands at the angle of the jaw, and those situated in the posterior triangle. Usually, when first seen, they are somewhat small,

unless, indeed, they have for a time escaped notice, and have been left undisturbed, when they will occasionally attain a considerable size. They are described as having been met with, several inches in diameter, although I must say that very large glands have not, so far, come under my own observation. They are rarely single, more frequently the entire chain of glands are enlarged, some being exceedingly small, but very distinct, and sometimes the glands on both sides of the neck are implicated. They present firm, painless, non-adherent growths, quite movable, and feel as if they were connected the one with the other, which in verity they are, by enlarged and thickened lymphatic vessels. Occasionally large masses are met with, made up of several small glands held together by dense areolar tissue, not, however, completely fused, as the capsule of each, although markedly thickened, is perfectly distinct. The centre of each gland, if examined, will be found to contain soft, cheesy matter, somewhat resembling the curd of milk. This I have seen in very slightly enlarged glands, so that it would appear to be an early condition of change, and is not evidenced by any inflammatory state, such as redness or excessive sensibility. If the enlargement is left to itself, or if irritated by some local application, suppuration will advance. The skin over the growth inflames, becomes red and tender, the abscess, for such it is, soon bursts, and a thin, curdy pus is discharged. The areolar tissue around the gland is involved, and the skin becomes adherent. The abscess cavity, after the discharge of its contents, may fill up and close. More often, however, an indolent sinus is left, with thin, purplish undermined edges, or the integument may ulcerate, giving rise to a troublesome and unhealthy sore, which heals with difficulty. This constitutes the well-known strumous ulcer. If the sinus or ulcer heals, it leaves a depressed cicatrix, which becomes adherent to the deeper tissues. Occasionally prominent papillæ remain bound down by cicatricial ridges or bands. Resolution, after a fashion, does, in exceptional cases, occur without suppuration and discharge of pus. The caseous matter becomes dry, the enveloping capsule becomes firm and dense, and an indolent, but somewhat unsightly, nodule remains, but which does not wholly disappear.

Another clinical feature of these so-called scrofulous glands is the tendency to extension to other unaffected glands in their immediate neighborhood. The disease will show itself, it may be, in a single gland, and will in due course extend, so that the entire chain of glands become implicated, thus showing a marked contrast with enlarged glands from other causes, these latter are generally single, and do not tend to implicate others. Constitutional remedies do not appear to possess any controlling power, but, like a smouldering fire, the action will go on regardless of all attempts to arrest it by either local applications or constitutional remedies. The disease, if left to itself, or if treated by internal and local means, will be found to follow the same course as above described. Abscesses will form and open, sinus or ulcers be left, which in due course, if they do heal, will leave the part seamed, scarred and disfigured. While this local injury is in progress, we cannot prevent the infection of other vital organs, as this bacillus is in length about one-third the diameter of a blood-corpuscle, and in thickness it is stated to be one-fifth of its own length. A micro-organism of such a size is capable of entering the blood-stream, or of getting into lymphatic vessels, and of being carried to any organ or gland of the body. It naturally follows that if tubercle is in verity a mere inflammatory change due to the presence of this microbe, the sooner the microbe is removed the better, and the safer for the patient's life.

Very little is known concerning the actual mode of entrance of the microbe. Various theories have been proposed on this point, and perhaps all are correct, as they possess the semblance of truth. There is, however, one other fact in this connection to which experience points, which is, that individuals are not subject in the same degree to the chances of infection. It has been supposed that the bacillus may enter by the stomach or lungs, or some abraded surface, cuticular or mucous, and yet do no harm. The power of protection appears to reside in healthy-living tissue. But if there is some defect in constitution, some special vulnerability, the microbe meets with suitable soil, and will there develop. It has been suggested that the peculiar soil in which the bacillus grows may with propriety be called scrofulous, and that the seed itself, the consequences of its growth and the mani-

festations which follow, would more properly come under the heading of tuberculous. Another point of great importance is that concerning the development and multiplication of the bacillus. Koch has pointed out that the larger the number of microbes introduced by inoculation the more rapid will be the diffusion of tubercle, until it becomes general. He has also described the mode of multiplication of the microbe by fission and the formation of spores. Such, then, being assumed as true, it naturally follows that to delay the removal of an infected gland is to expose the individual to the risk of general tubercular infection. But we have positive evidence on this point: it is within the experience of most of us that phthisis in many instances can be traced to or connected with scrofulous glands of the neck, or some other tuberculous affection either of the bones or joints or of other tissues in which the local malady preceded the general diffusion. And I think we can record other facts in this connection in which the removal of diseased or enlarged glands or of tuberculous joints has been followed by general improvement in health. Such general improvement will follow after the healing of sinuses or ulceration, which is the sequence to the discharge of pus from a tubercular abscess.

But what a contrast is the part which is left to nature with that which has been early dealt with by the surgeon's knife. In the one instance, the individual, after being subjected to the risk of general tuberculosis, will recover with the part seamed and scarred in every direction with adherent and puckered cicatrices, and this probably after years of suffering; in the other, the disease is at once removed, the patient is to a certain degree protected from infection by the entire removal of the diseased tissue, and this at the expense of a simple and not hazardous operation, a week or ten days surgical treatment, and ultimately a scar, which is not more than a narrow, thin white line, and which in some instances is scarcely perceptible. This radical method of treatment is, to my mind, preferable to that adopted by some surgeons, as laying open the part and scraping all diseased tissue away. In cases where sinuses and ulcers remain, I should think the use of the spoon would be attended with good results, but even in these cases where there remains

a ragged opening with thin undermined edges, it appears to me that removal of the entire diseased mass, freeing the skin from deep attachments, and bringing the edges carefully together, is a better method of treatment than that by the spoon.

Mr. Treves recommends the use of the fine point of a thermo-cautery, which he thrusts into the gland and passes it in several directions in the gland tissue. This method I never have employed, and I must say that it appears to me an unsurgical proceeding. I should trust alone to complete removal by the knife, and I may say that so far, I have not met with any case in which the entire removal has not been applicable. After removal, the subsequent healing is rapid; very frequently two or, at most, three weeks has sufficed to produce perfect union, and the subsequent scar has been slight and in time scarcely perceptible.

Case I.—On the 17th April, 1873, I was consulted by a gentleman, aged 27, with a large glandular tumor situated on the right side of the neck, extending as high up as the ear. It was nodular, firm, and appeared to consist of several glands held together by dense fascia; it was to the inner side of the sterno-mastoid muscle, and was quite movable. The tumor had been there for some two years, and had proceeded apparently from cold and exposure. For over twelve months he had been under treatment, various applications had been made, and the directions of his surgeon had been implicitly followed. He had taken iodide of potash, cod-liver oil, etc., without the slightest effect on the growth. When seen, the growth was the size of a goose egg. I recommended its removal, and the operation was performed on the 21st April, 1873. This man, although he had recently returned from England, was pale and looked out of health; he was weak, and unable to stand much fatigue. The wound united by first intention. It was before the days of strict antiseptic precautions. Silk sutures were employed, a drain was inserted, and the wound dressed with wet lint and oil silk. Four distinct glands were removed, and all were in a state of softening and contained pus. This I considered remarkable at the time, because there was no external evidence of such an event as suppuration having occurred. The following autumn he returned with an enlarged glandular growth lower down, and appa-

rently beneath the sterno-mastoid muscle. This was removed on October 13th; three small-sized glands were removed with ease without disruption of their capsule, and in each instance the gland was found in a condition of caseation. Recovery in this instance was rapid; the wound closed in the course of ten days. I met this gentleman during the early part of the present month, August, 1886. He is robust and healthy in appearance, and the two scars in his neck are so indistinct that they would be readily passed over by a casual observer.

Case II—March, 1874.—This was a young woman, aged 27. She had a glandular growth situated near the angle of the jaw on the right side. Had been under treatment for several months. The iodide of lead ointment had been used, and other internal remedies. She was pale, thin, and with a phthisical family history, her mother, a sister and a brother having died of phthisis. She consulted me in regard to the tumor, which was most unsightly. I advised its removal, and the operation was done on the 23rd March following. A single straight incision was made and three distinct glandular masses, softened and breaking down, were removed. A portion of the skin over the growth, which had thickened and was adherent, had to be taken away. Recovery was rapid. Six months after the removal this patient had greatly improved in personal appearance, and a very slight whitish scar was visible, but it was soft and non-adherent to the deeper parts.

Case III.—M. R., aged 20, admitted into the Montreal General Hospital in April, 1883. This patient had been operated on before, and several glands removed from the upper part of the neck. There was a chain of glands, enlarged, extending down almost to the clavicle; two at the upper part, a little below the angle of the jaw, had suppurated, and several sinuses led into a lot of gland tissue, which was disintegrating and discharging. This gave her great annoyance, and had a marked effect on her general health. She was pale, anæmic in appearance, had a very anxious, troubled look, and was very much depressed in spirits. I recommended their removal, and she willingly consented. The operation was performed on the 25th April. An

incision to the outer side of the sterno-mastoid and reaching to the clavicle had to be made ; from this quite a number of glands were removed—in fact, all that in any way were enlarged. Several were open and discharging pus, these being situated at the upper part of the wound ; lower down they were small, but all had softened, and contained cheesy matter. With some considerable difficulty they were all removed, the edges of the skin pared and brought well together, and the wound dressed in the usual way after Lister's method. The spray was used throughout the operation and subsequent dressings. On reference to my note-book, I find that the wound had quite closed on the 15th May, but she did not leave the hospital for several days thereafter. I may state that this young woman is at present in robust health, and from being a weak anæmic girl, she is now making rich blood, and has greatly improved in appearance. The scar is white, but perfectly free, soft and pliable, and unattached to the deeper parts.

I have the notes of some eight cases in private, besides ten or twelve performed at the Montreal General Hospital, making over twenty cases that have come under my own observation. In all, the results have been quite satisfactory. The general health of all these patients has been greatly benefited by the removal of the glands. Several, from presenting an appearance of decided ill-health, ex-sanguine, anæmic, and in a state in which you would suppose a general break-up was threatened, have markedly changed for the better, and assimilation has greatly improved. Several of these patients have become quite healthy and robust, have increased in weight, and have in no way suffered from the removal of these important organs, which were in verity, before their removal, so damaged as to possess little, if any, functional activity. I cannot do better, in this connection, than endorse the conclusions of Mr. Pridgen Teale, in some very excellent clinical remarks made by that surgeon in reference to tuberculous glands : " That surgery can secure the healing, in a very few weeks, of sinuses and cavities leading to to diseased or tuberculous glands, even though they have existed for years, and that in cases of caseous and suppurating glands, the action of the surgeon should be vigorous and thorough."