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SYPHILIS.

BEANEY.

"The study of Syphilis attracts universally, and as it were irresistibly, the attention of acute inquirers. Observe the progress; follow the discussions to which it gives rise; count the number, weigh the merit, of those who cultivate and honour it; note how it always remains pure and scientific, despite the contact of charlatanism and speculation; and say whether this branch of medicine does not enjoy a kind of privilege (shall I say notwithstanding its origin?) which distinguishes it, and raises it above all other specialities."—Dr. Diday.

"Advances in Pathology of late years have not been more marked in any direction than in demonstrating the very remote effects which the poison of Syphilis exercises upon the organs and constitution of man. They have shown that a considerable number of doubtful cases of ill-health are in reality due to the specific poison of Syphilis, whose morbid effects are not fully developed till many days, months, and even years after inoculation."—Dr. Aitken.

With the Author's Compliments

CONSTITUTIONAL SYPHILIS:

BEING A

PRACTICAL ILLUSTRATION OF THE DISEASE

IN ITS SECONDARY AND TERTIARY PHASES.

BY

JAMES GEORGE BEANEY, F.R.C.S.,

FORMERLY SURGEON TO THE MELBOURNE HOSPITAL,
AND TO HER MAJESTY'S TROOPS DURING
THE CRIMEAN WAR.

WITH TWENTY COLOURED PLATES.

MELBOURNE:

F. F. BAILLIERE, PUBLISHER.

1872.

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DEDICATION.

TO

P. RICORD, M.D.,

Surgeon-in-Chief to the Venereal Hospital of Paris; Knight of the Legion of Honour; and Member of most of the learned Societies throughout the World:

THE great and distinguished syphilographer who had the boldness and skill to first open up an untrodden, but to humanity a most important, path of medical investigation, and to whose eminent leadership the medical profession throughout the civilised world owe so much—who has stimulated the master minds of the several schools to follow him in his benevolent effort to release humanity as far as possible from one of its greatest scourges:

This work is dedicated by one of his pupils, who deems it the highest honour his medical career has conferred on him to have listened to the teachings and enjoyed the friendship of so great a master.

It is but consistent that a work—the first of its kind in this part of the world—which is intended to

disseminate the knowledge which he has accumulated, and been the direct cause of evolving from other minds, should pay its just tribute to his high position.

In no part of the world is there greater need than here for the earnest pursuit of this momentous branch of medical science, nor a wider field for observation; and it is my ambition to emulate therein the wisdom, skill, and acumen of him from whom I learned my first and best lessons.

JAMES GEORGE BEANEY, F.R.C.S.

154 Collins Street East,

Melbourne, October, 1872.

PREFACE.

It is gratifying to observe that the time has arrived when the leaders of the profession have felt it to be their duty to address themselves with more earnestness to the consideration of that class of diseases, known as venereal, which has for so long a period been claimed by charlatans as their favourite field of operations. By this wise resolve on their part, society will be benefited incalculably; for hitherto that great channel of investigation has been too much overlooked, and mankind has suffered accordingly.

Humanity has probably received more injury, both physically and mentally, from illegitimate and non-scientific practice in this branch of medication, than in any other. Syphilis, with its kindred diseases, has been the richest field for the extortioner and quack, and one which he still struggles, by the most unprincipled devices, to retain. There is but one remedy against this evil—viz., that it should be earnestly and absolutely taken possession of by the whole profession. The frightful examples of consuming force in this dire disease, which are to be witnessed in our hospitals, as

the direct result of illegitimate practice, are of themselves sufficient to draw upon this disease the special attention of the legitimate healers.

To the physician and surgeon in extensive practice, the protean forms of syphilis are a source of hourly interest. In a large proportion of cases that come under their treatment, the practised eye detects the mark of the destroyer in one or more symptoms. Its presence is discovered, either internally or externally, where less skilled observers had not recognised it, and where even the patient himself had not the most remote suspicion of its existence. So frequently is it concealed behind diseases otherwise classified, that it often requires great experience and practised observation to discern it. There is scarcely an organ or tissue in the body which does not suffer from the corroding influence of this terrible malady.

Even until very lately, many medical men have neglected almost totally the study of this branch of Pathology and Therapeutics, leaving it to those of their brethren whom they look upon as specialists therein. This unwise disregard of what they deemed an offensive disorder, has been detrimental to the profession, as well as a danger and loss to society. Considerable responsibility attaches to those practitioners who have thus ignored so important a branch of their duties as physicians. The example of the chief medical authorities in Europe and America, who have of late given greater prominence to the investigation of the venereal taint, and brought to bear upon it their superior

acumen, enlarged observation, and profound research, will doubtless stimulate the whole profession to a proper estimation of the importance of syphilis, in its multifarious expressions.

Such names as Ricord, Dupuytren, Cazenave, Divergie, Lallemand, Velpeau, Godart, Lancereaux, and Lugois, in France—Hunter, Astley Cooper, Bell, Erasmus Wilson, Paget, Acton, Barton, Parker, and Berkeley Hill, in England—are sufficient to evidence the great attention that has been paid to venereal disease by those best qualified to investigate it. These eminent men have used their extensive opportunities for research towards determining its laws, and the most philosophic and effective methods of dealing with it. It is equally the duty of the profession in these colonies to observe its phenomena, and show that they are not less prepared than their European confrères to combat successfully this venereal scourge. I have, therefore, as one of the number, made the development and character of syphilis in Victoria a special field of observation, and have in the following pages briefly recorded my experience of the phenomena it exhibits and the success of the treatment I have employed; and I shall be more than repaid if the facts recorded are found to be of the slightest service to the general practitioner both here and elsewhere.

I have in this edition introduced the medical treatment adopted by me, which differs somewhat from that which is recommended by some high authorities, and many cases of great importance are recorded for

the purpose of illustrating its value. In the former edition, I stated that it was my intention shortly to publish a work especially for professional use. The impossibility of sparing the time from the incessant engagements of a large practice, caused me to determine upon a reconstruction of the present work, so revised and improved that it should assume a more practical character, and thus obviate the necessity for the proposed volume.

It will be seen that I have treated the question of transmission of syphilis by vaccination with considerable freedom. This arises from the fact that my opinions thereon receive fuller confirmation daily from cases which come before me. It is a matter of great moment; and although it is said to admit of discussion, not being supported by all syphilographers, still my views upon it are fixed, and I unhesitatingly affirm that more care—on that ground—should be taken in vaccination.

I have been largely indebted to the writings of Ricord, Divergie, Lallemand, Lancereaux, Acton, Hill, Parker, Lee, Wilks, Virchow, Rollet, Diday, Maclean, Viennois, Hutchinson, Bennett, Aitken, Miller, Cooper, Wilson, Taylor, Althaus, Bell, and others, whose opinions on nearly all points are such as I have been able to endorse in the course of long and attentive observations of the diseases on which these celebrated syphilographers have so ably written.

I am under obligation to the celebrated works of Ricord, Cullerier, and *Holmes's System of Surgery*,

for some of the excellent plates which I have introduced, as pictorial illustrations of the ravages which syphilis makes on the skin and viscera. The others are original, and are from cases which have occurred in my own practice.

J. G. BEANEY.

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CONSTITUTIONAL SYPHILIS.

CHAPTER I.

DEFINITION.—*The result of a specific poison, produced solely by contagion or implantation on some part of the body, generally through an abrasion or sore, consequent on sexual intercourse with an infected person. Three weeks or a month after absorption of the poison, a peculiar series of phenomena supervene, which mark the general infection of the system. The principal anatomical signs of general infection consist of induration round the spot where the virus has been implanted, induration of the lymphatic system of glands, the formation of gummatous, nodular tumours in the connective tissue generally, and especially in that of the true skin, bones, mucous membranes, and solid visceral organs—e.g., liver, brain, lungs, and heart. A cachetic condition of the system follows, and accompanies the phenomena of infection, and indurations may remain, in the form of hardened fibrous tissue, in various parts of the body for an indefinite period of time.**

SYPHILIS is a specific, and, like small-pox, a contagious disease, generally the result of impure sexual intercourse, and is classified into Primary, Secondary, and Tertiary stages, according to the order in the evolution of the symp-

* Professor Aitken, Army Medical School.

toms and lesions. In this work I shall pass over, for obvious reasons, the discussion of the phenomena of what is commonly termed Primary Syphilis—*i.e.*, the local indication of the disease, arising from the poisonous action of the virus on the spot where it has been deposited, which is commonly on the organs of generation, and from which the system ultimately becomes contaminated.

This indication of the disease is usually known by the term chancre, and when indurated or infecting does not remain merely a local disease. "It contaminates the system, giving rise by a multiplication, like that of small-pox poison, to one of the most malignant, most lasting, and most destructive forms of a disease poison that affects the human frame" (Dr. Aitken).

This sore is so well known, and so readily suggestive from its nature and ordinary locality, that whenever it may occur the patient is not at a loss to determine its character and origin. Much could, of course, be written upon this stage of the syphilitic taint, but, as the secondary and tertiary forms of its exhibition are far more important, involving far more serious conditions, I shall leave the less serious phenomena for those demanding more extended and particular notice.

It may not be unimportant, if not, perhaps, advisable, to throw out a few hints in reference to the phenomena of the primary stage itself, which, when present, has fully invaded the constitution, and commenced to undermine the foundations of health and life; it is, therefore, a warning that the enemy has taken its seat upon the surface, and will, if not rapidly destroyed, penetrate the frame, and proceed with its accustomed devastating power.

The primary, or true syphilitic, sore is seen by the surgeon under three forms—one characterised by induration throughout its entire course; one soft when first developed, and

becoming subsequently indurated; and one soft throughout its whole course; these are invariably followed by constitutional symptoms. The true syphilitic sore, or "Hunterian chancre," is of all the most virulent; nothing can save the blood from being poisoned by it so soon as it declares itself. It usually presents itself in three different forms—1st, in that of a cup-shaped ulcer, on a hardened base; 2nd, in that of a superficial ulcer, or excoriation of an ash-grey or livid colour, on an indurated base; and, 3rd, in the deposit of a "hard lump" beneath unbroken skin.

It is seldom that a poison, having once been absorbed, is spontaneously got rid of without serious alterations in the functions and tissues of the body. Generally it proceeds to repeat itself, and develop, in regular progression, all the phenomena that necessarily succeed each other, until it has brought about the destruction of the tissues it has invaded. In syphilis this is, in a marked degree, the case. It continues its hold when once the virus has been absorbed, and is so insidious that, unlike other poisons, it may remain latent for months, and even years, and suddenly break out with alarming severity.

The blood receives the taint in the form of poisonous germs, and thus disturbs every tissue which it supplies, depressing the brain, prostrating the nervous energies, and causing a sense of uneasiness and malaise in every portion of the frame. The syphilitic fever may not, however, set in unless led off by a chill or catarrh; and so also is it with the secondary phenomena, which may depend often for their positive activity on the debilitating influence of some other cause.

It is therefore imperative that as soon as any one discovers his misfortune he should at once confide his safety to those whose talents and position as surgeons guarantee to him a rapid release from the unpleasant association;

that is the stage at which prompt and judicious action at once and for ever disposes of the evil; it is also the time at which an error in practice will allow the virus to invade the system generally, and increase the difficulty of cure. No time should be lost; no attention spared; no indifference as to choice of surgeon permitted.

With these suggestions as to the primary venereal affection, I shall leave it, and at once proceed to the task I have set myself—viz., to describe, as plainly and as practically as possible, the terrible nature of the secondary and tertiary phases of this disease.

CONSTITUTIONAL SYPHILIS has for a long period been the scourge of the human family; having the ready mode of communication which sexual intercourse affords, it has spread with uninterrupted progress amongst all races. But although it has continued its march year after year, until very recently it met with no important check from the medical schools.* Not having been well understood, it escaped detection in thousands of instances, and, under the guise of diseases having other names, insidiously spread itself by contact when its presence was unsuspected.

Millions of men, women, and children, have fallen victims to this constitutional form of the disease, and it now appears to the observant physician almost everywhere present, wherever the constitution is seriously affected.† Indeed,

* "There is no disease which more imperatively demands the careful study of the profession at this time."—AITKEN.

† "Of all contagious diseases, to which the human species is liable, and which cause to society the greatest evils, there are none more serious, more dangerous, nor so much to be dreaded, as syphilis; and I am not afraid of being accused of exaggeration in saying that its ravages far surpass those of all the plagues which have at different times terrified society."—DUCHATELET.

the opinion of many of our most eminent men is, that it is our duty to look for it everywhere, and thus always be on guard, and prepared against a power which otherwise will baffle all our attempts at cure, if not recognised and specifically treated; the prominent feature of the patient's disorder being but superficial, or overlying the deeper and more serious ailment.

The constitutional manifestations of syphilis follow the initial or primary sore and enlarged glands at an uncertain interval of time, ranging from three to ten weeks; but, as a general rule, it will be found that the system begins to respond to the activity of the poison about the sixth week, giving rise to the so-called syphilitic fever.* This is indicated by a sense of chilliness, followed by heat of the skin, accelerated pulse, head-ache, general lassitude, and mental depression; there also appears dullness of the eye, and want of its ordinary lustre, and vivacity of the countenance; mental and bodily effort becomes painful, and a general inertia overwhelms the patient's energies, who becomes taciturn and inactive; pain in the head with frequent attacks of giddiness occur, and the head-ache has the peculiarity

* Professor Aitken observes (*Science and Practice of Medicine*, vol. i., page 873)—"Syphilitic fever is ushered in by symptoms like those which precede eruptive fevers. It usually precedes, by eight or ten days, an early secondary eruption; but the fever continues after the eruption appears. The fever is attended by general derangement of the functions; nausea, flying pains, frontal headache, and depression of spirits. The bodily temperature rises to 100° or 102° Fahr. at night; falling in the morning to 98° or 99° Fahr. This alternation may continue for days, or even weeks, so long as fresh cutaneous eruptions continue. Dr. Berkeley Hill has observed the course of syphilitic fever in six cases. At the outbreak of the eruption he found the temperature rise in the evening to 100°—101·4° Fahr.; 100° Fahr.; and 102° Fahr. In two cases, where the eruption was scanty, it did not reach 100° Fahr. In the morning, the temperature of all the cases was 98° to 98·6° Fahr."

of being worse at night, and especially so when in bed, its seat being principally confined to the part of the forehead immediately over the eye, the top of the head, and the left side; these symptoms are accompanied by pains in the limbs, especially of the joints, and are generally of a severe rheumatic character. In the course of three or four days an eruption of a pale pink colour (syphilitic roseola) appears on the skin of the chest, abdomen, back, and arms; this eruption terminates in copper-coloured patches. The temperature of the body at this time ranges from 99° to 102° Fahr.

When the disease is severe, well-developed papules, vesicles, and pustules may appear on the head and back, intermingled with or following the rash; the pulse is quick, the throat exhibits a florid discolouration, which involves the tonsils and the soft palate. This stage of the disease, which usually remains stationary for some days, may be preceded, accompanied, or succeeded by enlargement of the glands in the groin and back of the neck; the latter, however, are not always affected.

These indications are accompanied by impaired health and loss of physical strength, together with great pallor of the skin; the tonsils may now ulcerate, and present a flat surface or an excavated ulcer; at a later date the hair falls off, and small white ulcers, about the size of a split-pea, form on the side of the tongue, which, on healing, leave a white and depressed scar, while others appear on the soft palate and roof of the mouth, on the gums, or at the angle formed by the two jaws; condylomata of the anus, mucous ulcerations of the angles of the mouth, nostrils, nates, and female genitals, together with disease of the eyes and nails.

The changes which occur in the more advanced stage of this formidable disease (*tertiary syphilis*) are due to the

deposition of fibro-plastic material in the various tissues of the body; and by the formation of distinct deposits, or by interstitial exudation, the different viscera may be so affected as to involve the life of the individual. The liver is frequently the seat of syphilitic lesion; the brain and its membranes are also liable to its invasion, inducing epilepsy, mania, paralysis, and many other serious and fatal diseases. Syphilis of the lungs is frequently mistaken for other diseases of these organs.

Until the disease declares itself upon the skin and mucous membranes, the symptoms are frequently obscure, but from well-directed observations I find many persons complain of tenderness under the clavicle, and I have frequently found this symptom to be an excellent diagnostic sign, as well as the substernal tenderness pointed out by Dr. Brodrick, of Madras. This gentleman thus writes in the *Edinburgh Medical Journal,* on substernal tenderness:—

"It can only be detected by pressure on the bone, and when searching for it formerly I used to knead the bone with the fore and middle fingers, carefully, from the manubrium to the scaphoid cartilage. In a case of suspected constitutional syphilis, if the patient be asked if he has got a pain in the breast-bone, he will probably answer in the negative. The medical man should then knead the sternum carefully and gently along the whole of its course, and the tender spot will generally be found at the commencement of the lower third.

"With much practice and observation in this class of cases, I now generally succeed in touching the tender spot at once, to the great surprise of the patient, previously quite ignorant of the existence of the tenderness. If substernal tenderness be found, I believe we are quite safe in assuming that the subject of it labours under acquired venereal taint, which may have been masked by divers symptoms, and be

quite unsuspected both by patient and surgeon. It often furnishes a clue to the cause of very anomalous symptoms, and a most invaluable guide to us in treatment. . . . .

"Although the existence of substernal tenderness is, I believe, unerringly significant of venereal dyscrasia, it must be borne in mind that a patient may be constitutionally syphilitic without manifesting this particular sign; but, when detected, in it the physician has a very valuable guide for treatment. . . I have hunted diseases to their source at once, in scores of cases, since I became aware of the existence and the importance of this diagnostic sign; and the rapid improvement of such cases under the specific treatment has invariably confirmed my diagnosis. Constitutional syphilis prevails very largely in Malwa, so that I have a large field in which to practice palpation of diseased sterna amongst the sick coming to my dispensaries. . . . In a suspected case, then, look for this tenderness; it will usually be found at the commencement of the lower third, occasionally in the upper third, and very seldom in the space intermediate."

Swellings of the glands at the back of the neck are frequently observed, and are in a high degree characteristic of the further encroachments of the disease. Falling of the hair from the head is another symptom of importance, which will, with others, receive further notice as we proceed.

The regions principally affected in the secondary form are the mucous membranes, as seen in ulcerations and eruptions; the eye, as seen in disease of the body of the eye itself, and especially the iris; the throat, as seen in ulceration of the fauces, the tonsils, the palate, &c. The blood also changes, and as a consequence every tissue in the body undergoes more or less disturbance and disorganisation, until the unfortunate victim falls, in the tertiary stage, a prey to a destructive agent which might have been

strangled in the outset had it been in the hands of a competent surgeon.*

The poison of syphilis undergoes a multiple process of elaboration or development in the system before its full effects are completed, and the lesions it induces demonstrate some of the most interesting points in the pathology of the multiplications of morbid poisons. It is this multiplication which ultimately destroys life through a general degeneration of the tissues, or by the induction of grave lesions in important visceral parts, such as the brain, lungs, liver, or the kidneys and heart. In the so-called primary and secondary affection we have mainly to do with congestions, inflammations, and ulcers. In the tertiary lesions and advanced stages of syphilis there are (1) a constitutional cachexia, with certain definite anatomical characters; and (2) a tendency to the growth of a peculiar material, chiefly

* "The interval which elapses between the well-characterised secondary symptoms and the well-characterised tertiary ones is one of different degrees of immunity in different cases. In many, I think the majority, the poison is wholly latent, and the patient experiences nothing whatever to remind him of his taint. In many others, however, recurrences of symptoms, which it is difficult to assign to either group, continue to show themselves. Superficial sores on the tongue or the mucous membrane of the mouth, isolated patches of scaly or desquamating eruption on the skin, especially psoriasis palmaris, are the more frequent of these. Sometimes they are symmetrical; at others not so. Such symptoms may continue to recur for many years (even to twenty) after the contagion. They probably depend rather upon permanent tissue contamination than on still-existing blood disease. At any rate, I may safely assert that we never witness any true recurrence of the secondary epoch. The eruption is rarely very copious, and rarely of such a character to deceive an experienced eye; nor is it attended with ulcers in the tonsils and iritis, which are so common in the secondary stage. In rare instances, at an interval of perhaps a year or eighteen months after infection, a relapse of a general symmetrical rash may occur. This rash may assume the form of rupia, and be attended by severe constitutional symptoms."—Article by Jonathan Hutchinson, F.R.C.S., in *Reynolds's System of Medicine*, vol. I., page 733.

in the form of gummatous tumours, or nodules, of which the node is the common and familiar type, but which are found, not only in the bones, but in the areolar tissue, heart, muscles, testes, and eye.*

Syphilitic Diseases of the Skin and Appendages.

FIRST DIVISION.

Syphilitic Exanthematous Diseases of the Skin.

1. **ROSEOLA** is one of the simplest of the forms of constitutional syphilis, and indicates nature's effort to eliminate the poison from the system. It is also the common precursor of the other forms of syphilitic eruptions on the skin. This rash varies considerably in form, and also in regularity of size. The patches are superficial and red, but disappear

* After contamination of the system, the specific lesions peculiar to syphilis begin to appear, somewhat in the following order of events :—

Lesions or Symptoms.	Date of usual Development.	Date of earliest Development.	Date of latest Development.
Roseola	45th day	25th day	12th month
Papular Eruption	65th „	28th „	12th „
Mucous Patches	70th „	30th „	18th „
Secondary Affections of Fauces	70th „	50th „	18th „
Vesicular Eruptions	90th „	55th „	6th „
Pustular Eruptions	80th „	45th „	4 years
Rupia	2nd year	7th month	4th year
Iritis	6th month	60th day	13th month
Sarcocele	12th „	6th „	34th „
Periostitis	6th „	4th „	2 years
Tubercular Eruption	3 to 5 years	3 years	20 „
Serpiginous Eruption	3 „ 5 „	3 „	20 „
Gummy Tumors	4 „ 6 „	4 „	15 „
Onychia	4 „ 6 „	3 „	22 „
Exostosis	4 „ 6 „	2 „	20 „
Ostitis—Changes in Bone and Cartilages	3 „ 4 „	2 „	41 „
Perforation of Palate	3 „ 4 „	2 „	20 „

—*The Science and Practice of Medicine*, by W. Aitken, M.D., vol. I., page 877.

on pressure, and they pass away by means of desquamation, or falling off in the form of minute scales.

Either during the existence of the primary symptoms above alluded to, or after improper treatment and throwing in of the virus, the patient observes on different parts of the body—sometimes extensively, at other times very limited in extent—an eruption which he is inclined to consider as of a simple nature, from its similitude to measles. It is seen most frequently on the arms and abdomen, and has the appearance of rosy patches more or less circular in form; at the same time the surrounding skin is unhealthy in character, being of a dull, dusky, and yellowish tint.

Sometimes it is annular in its manifestations, spreading in extensive rings over the body, and having a patch of clear skin in the centre. This rash is generally accompanied with fever, prostration of strength and sore throat, but not always; hence it is allowed frequently to be treated lightly, and considered of little moment. This absence of fever is by no means a reason why the rash should be passed over with indifference, for having once appeared, it may from time to time re-appear, and assume quite a chronic and uncontrollable character; it is, however, the simplest form of secondary, and can at that stage by proper treatment be effectually controlled, any further development being prevented.

It is also often erratic, or roving, appearing and disappearing at different parts of the body, which indicates that the taint is becoming general, the virus having penetrated the blood current. These spots or rosy patches in the end become dull, and, losing their rosy hue, become coppery, and thus are especially characteristic. It would be well for the infected to have obtained proper assistance before this last change has taken place, but it behoves him especially to take the alarm as soon as he perceives that the

apparently simple rash—which scarcely at first arrested attention—becomes changed into what at once admonishes of the existence of the dreaded poison—viz., the coppery stain.

One of the hints that may judiciously be thrown out for the better guidance of the infected in this matter is, that the duration of the course run by the rash is exceedingly unequal, varying from a few hours to three weeks, thus differing widely from the great regularity noticed in the periods of those eruptions which syphilis is said to simulate. The absence of itching and fever may always excite suspicion, but should there be chancre anywhere on the body at the time of the rash, no doubt whatever need exist as to the nature of the disease. This rash is, however, sometimes simulated by one which is not of a formidable character, but so seldom does this occur that it is exceedingly unwise in any one to speculate upon such a chance. The surgeon alone is able by analysis of all the circumstances to arrive at a correct conclusion.

The true rash has been clearly described in *The Lancet*, and in so concise a form, that it will be of some service to quote it:—"When the eruption has appeared it will go on for more or less time, but it then presents a kind of intermittent character; it is observed to fade away for a little while, then it reappears, and it may thus go on, with interruptions, for two, six, or twelve months, but after a year or two it entirely dies away. It fades away without the patient being aware that it ever existed; but some time after—say a year—another and deeper eruption makes its appearance, and here you must be careful not to take this latter eruption for the first manifestation, for you would then fall into the error of believing that you had to do with a tertiary symptom, the second having been absent altogether."

From this high authority I thus draw a powerful auxiliary to the advice above afforded, which authority, beyond all dispute, commands the attention of the public, as well as of the profession. This rose-coloured rash, therefore, which is the first and simplest of secondary phenomena, should, by all persons who suspect themselves of being contaminated, be immediately accepted as a note of serious import, and steps should be taken by professional aid at once to deal with it effectually and curatively.

2. **MACULA.**—This eruption generally follows the roseolar rash, with which it corresponds in form. Mr. Erasmus Wilson, in his celebrated work on skin diseases, thus graphically describes it:—"When the congestion of syphilitic roseola subsides, it leaves behind it a more or less stained appearance of the skin, and this is a common character of all the syphilitic eruptions. The stain generally corresponds with the form of the eruption which preceded it, and is of a brown colour of varying tint; deep, and almost approaching to black, in persons of dark complexion; of lighter hue, and verging to fawn, or a dead-leaf-like tint, in the fair. Sepia, tinged with red or yellow, would, in the hands of the artist, produce all the variations of colour which the syphilitic stain presents. These stains of the skin are termed maculæ syphiliticæ, and are always the effect of a congestive action in the skin."*

* In all syphilitic eruptions a study of the history and symptoms of the case will enable the practitioner to arrive at a correct diagnosis. If the rash is of a copper colour, if it appears in several forms at one time, if there is an entire absence of itching, and if it has followed an indurated sore on the penis, with enlarged glands in the groin, it is beyond doubt syphilitic.—J. G. B.

SECOND DIVISION.

Papular S. Diseases of the Skin.

1. **LENTICULARIS.**—This is the commonest syphilide met with in practice during the first year after contagion. The papules generally begin in rosy red spots, varying in size from a lentil to a sixpence. In a few days the colour becomes pale and the cuticle scales off. In the earlier stages of the disease the papules (pimples) are scattered freely over the head, trunk, and extremities, and usually appear within four months after the appearance of the chancre. "In the later stages the eruption consists usually of a few isolated groups of papules on the limbs or face, that may be repeated over and over again for several years after infection. The early varieties appear while the poison is in full activity, hence they are accompanied by some other evidence of the presence of the virus, muddy complexion, sore throat, falling hair, and enlarged lymphatic glands. Their outbreak is occasionally heralded by febrile reaction."

"The course of every form of this eruption is slow, often continuing several months if not subjected to treatment; even when mercury is employed, they are sometimes very obstinate. Relapses are exceedingly frequent, but the succeeding papules are generally of the larger scaling variety. The structure of the papules is very similar in all, the essential part being a solid elevation above the surrounding surface of the skin, which sometimes (according to Zeissl, always) takes its origin in a hair follicle, or sebaceous gland. In the smaller varieties the development of the papule does not extend beyond the follicle; in the larger ones, a small papule enlarges rapidly, or several coalesce. The colour is the same in all, bright rosy at first, then brownish red, or purplish red, growing pale

again as the papule subsides, and gradually disappearing altogether. As the papule reaches its full development the cuticle separates, usually in dry scales, as in S. psoriasis; sometimes a vesicle forms on the summit of the papule, as in S. miliaria" (Berkeley Hill).

2. **PSORIASIS.**—When the papule is large and the process of desquamation extends all over its surface, it is termed syphilitic psoriasis; and when it appears, no part of the body possesses an immunity from its attack; it, however, generally appears across the forehead near to the scalp, and in that situation is termed *Corona Veneris.* Scattered groups of papules, of varying size and development, occupy the shoulders, neck, back, and inside of the limbs. Late in the course of the disease the eruption often assumes a circular or figure-of-eight form, and then it is called *Lepra Syphilitica.* Dr. Berkeley Hill goes on to say—"This eruption is quite chronic, and continues four or five months, by fresh groups of papules replacing the earlier ones. It returns more frequently than the smaller form, either by a repetition of isolated papules in different parts of the body, or by the development of one or two leprous patches on the shoulders, arms, or some other part of the body. This uncertain duration makes it impossible to assign a set limit to the papular eruption. The *lenticular* and *scaling* rashes do not recur usually when eighteen months have elapsed after contagion; but they may, as exceptions, much exceed this period, and reappear several years later."*

Lepra is common in the second year, and for five or six years after infection. Enlargement of the lymphatic glands connected with the point of contagion often still remains, and also the glands at the nape of the neck and in the armpit

* Syphilis and local contagious disorders.

frequently swell at the time of this eruption. The tonsils and soft palate are generally the seat of mucous patches, which are common too at the anus and vulva. As the larger papular eruption is of long duration, it is the frequent attendant of syphilitic disease in other tissues; hence iritis, periosteal pain, and fall of the hair, are very often associated with it. Iritis, according to Zeissl, is present in six per cent. of those suffering with papular syphilides.

When this disease attacks the palms of the hands it is termed *Psoriasis Palmaris Syphilitica.* These syphilides are of a squamous or scaly nature, varying from slight to extensive exfoliations, having chaps or fissures exposing red and slightly tender surfaces. The disease presents itself on the palms of the hands as a hard and semi-horny condition of a portion of the skin. It is sometimes found in separate patches, at others it occurs as one uniform group of pustules, which develop into brown elevations that after a brief period suppurate, after which the hard skin exfoliates, leaving a tender and often an ulcerated base. It may be seen in three different stages at the same time: in the form of the simple isolated pustule; in groups; and in a state of exfoliation. In fact it is frequently of a compound character, exhibiting the characteristics of pustule and papule. It has, however, most commonly been pronounced syphilitic psoriasis. It is, in my opinion, of that type, and I therefore give it that rank in discussing its characteristics.

The crusts that form on the hands are generally very hard, and cause painful and deep fissures or cracks. In some patients the crusts are considerably elevated and extremely hard, so hard in fact as rather to resemble horn than an ordinary concretion of pus. At the same time there are shrivelled portions of skin, which exfoliate or peel off; so that altogether the palm of the hand, with its ulceration, horny excrescences, and ragged appearance, is in anything

but a fit condition to be advanced towards a friend for salutation.

This is perhaps one of the most difficult forms of syphilis that can be brought to the consulting-room of the surgeon. After the exfoliations fall off, they leave a coppery red surface, which is more or less contracted. It sometimes defies for a long time the ablest efforts of the surgeon, and unless judiciously managed, will remain year after year, to annoy and inconvenience the unfortunate patient. Modern practice has, however, made vast improvement in the method of treatment, so that much relief is to be gained in a comparatively short time. The earlier it is subject to medication, the easier it is to control it. (*See* Plate.)

The following is interesting.

CASE I.—*Palmar Syphilis, of three years standing, rebellious to treatment. Cured.*

Mr. D., aged 44, consulted me three years ago, on account of a disease of the palms of the hands. Five years anterior to his visit to me had suffered from chancre on the prepuce, and for which he was treated, having passed through the secondary period in several of its phases, as sore throat, sore tongue and lips, together with a smart attack of pustular syphilis on the skin. He was told he was cured, and he saw no reason to doubt that expression of opinion until three years ago, when he first noticed the unseemly appearance on the hands. From that time until he consulted me he was constantly taking medicine.

On examining his hands, I found several red patches on the palms and fingers; in these patches were cracks, or fissures; these cracks had also extended to the lines of flexion of the fingers. On the surface of these spots the cuticle appeared hard and yellow, and scaling off; and he was in very

low spirits, and always wore gloves, lest some one might descry what to him was a most loathsome disease. I treated his case upon strictly anti-syphilitic principles, and I dismissed him completely cured in less than seven months. His hands were well in four months, but I deemed it wise to keep him under the influence of medicine for a longer period.

In common parlance all forms of Psoriasis are called scrofula, but this is scarcely a correct designation. Scrofula is a state of "constitutional debility, with a tendency to ulcerative diseases, and to the deposit of tuberculous matter in various tissues and organs." Psoriasis—as will have been seen by the definition above—is a scaly disease, accompanied with chaps and fissures, even when the patient is in robust health. There is, therefore, a considerable difference in their typical manifestations.

Scrofula by some writers is said to be of syphilitic origin, but I am not prepared at present fully to endorse that opinion, nor in this place to enter upon the discussion of the question. Psoriasis is very often syphilitic, and when it occurs in the hands and feet, it may almost always be found associated with some other syphilitic phenomena. As a syphilide it assumes several forms, showing itself in the face, the forearms, and the hips, as well as on the palms of the hands and the soles of the feet; but its main feature is exfoliation, or peeling off, from the small bran-like scales that sometimes rub off without leaving any alteration in the skin beneath, to the large flakes that detach themselves in plantar disease, or syphilide of the sole of the foot.

When Psoriasis is of a syphilitic character, there is little difficulty in detecting its true nature. It may be known by its occurring usually in the hands and feet alone. In common Psoriasis, uncomplicated with the syphilide, the hands

and feet are free, the rest of the body being considerably affected. It is a very obstinate form of syphilide, and in some cases defies for a long period every form of treatment.*

Psoriasis itself, uncomplicated with the syphilitic contagion, is not of serious prognosis or import; it is more inconvenient and annoying than dangerous. When, however, it is associated with syphilis, it becomes a question of some gravity, and demands prompt attention.

Syphilitic Psoriasis is by no means an uncommon disease, but is one of the earliest and most frequent of the eruptions which follow contagion. The papulæ vary in size from a lentil to a shilling, and even larger. They begin in rosy-red spots, starting generally from a hair follicle. In a few days the colour loses its brightness, and the cuticle scales off. If the papulæ are small, and the desquamation is confined to a silvery border of loosened cuticle, it is termed Lenticular Syphilide; if the papulæ are large, and desquamation extends all over its surface, it takes the name of Syphilitic Psoriasis. No part of the body altogether escapes this eruption; it appears across the forehead from temple to temple, close to the scalp, where the eruption is called "corona veneris." The eyelids, the nape of the neck, the shoulders, trunk, wrists, and inner aspect of limbs, are usually the seats of scattered groups of papules, assuming the form of Psoriasis.†

This syphilide is said by some to belong to the class Papulæ, and would have been considered by me under that head, had I not wished to draw attention particularly to the palmar and plantar form of the disease, occurring as it does so frequently, and not generally being well understood. Ricord, Acton, and Divergie have paid considerable attention to this syphilide, notwithstanding which, much difficulty

* Berkeley Hill, Divergie. † Berkeley Hill.

and uncertainty are sometimes involved in its diagnosis. Mr. Acton gives a diagnostic sketch in the following words: —"Effusion of a horny substance takes place immediately beneath the epidermis; a hard corn, about the size of a split pea, is felt, which presents a copper colour. The thickened cuticle now presents little cracks, and desquamation follows. If the disease is allowed to go unchecked, the delicate and unprotected cutis cracks, crevices form which become very painful, and considerable irritation follows when any acrid substance comes in contact with them, and they pour out a secretion which forms crusts upon the surface; in fact the palm of the hand becomes so horny that the patient is prevented from making use of it."

Although the palm of the hand is often so much involved in this disease, and presents such a disagreeable aspect, as well as being extremely painful, still the disease assumes in other cases a much milder form, being but slightly prominent, and not forming painful fissures. The slightest indication of its existence, however, should not be allowed to go on without specific treatment, owing to the tenacity with which it holds its place when once it has appeared.

CASE II.—*Syphilitic Psoriasis. Dense scaly eruptions all over the body. Hands and feet raw. Tubercular nodes in testes. Severe ulceration of mouth. Syphilitic neuralgia. Cured.*

Mr. J. H. sent for me about twelve months ago to visit him at one of the leading hotels of the city. He informed me that he had been under a popular surgeon in Melbourne for eight months, and was then at the close of the treatment in the following condition:—I found dense scaly eruptions over the whole body, save the palms of the hands, the soles of the feet, and the buttocks, which were completely raw.

Being in this state he was unable to move, and had to be fed by a nurse. The scrotum was filled with tubercular nodes or lumps, the size of marbles, which were particularly painful. He complained of constant itching of the nose, and ulcerated spots at the roof of the mouth, which interfered with the act of swallowing.

Having had a very fine head of hair before his illness, he grieved over the rapid loss of it since the occurrence of the eruption. He was afraid that his head would be soon denuded of hair. He suffered great pain at night in his shoulder joints, and evidently was severely afflicted with syphilitic neuralgia in the head. In this state I took charge of his case, and placed him under a non-mercurial course of treatment, as is recommended and practised by some of our ablest European syphilographers. In a fortnight he was enabled to leave his bed. In two months all eruption had disappeared, and I was in a position soon afterwards to pronounce him cured. As he was going to New Zealand, I gave him a course of eradicative treatment for two months. At the end of that time he presented himself in my surgery quite well, and had made arrangements for a speculative enterprise of some magnitude to Japan.

CASE III.—*Syphilitic Scrofula. Ulceration of nose and mouth. Ulceration of legs. Cured.*

Mr. W. F. T., ætat. 42, arrived from New Zealand on January 12, 1869, purposely to place himself under my care, suffering from what he supposed to be a scrofulous disease. He was a miner, and, owing to the extreme hardships he had endured, his constitution was shattered, although his pocket had been benefited. He expressed his regret that his money had been accumulating at the expense of his health, as he thought. On presenting himself in my surgery, he had all

the appearance of emaciation and defective nutrition, the vegetative system having lost its functional activity and vigour. He was of the nervous and lymphatic temperament.

The external phenomena were extensive ulceration of the legs below the knee, and exfoliations on the interior aspect of the thighs. On the face, and especially on the nose and mouth, there were thick crusts, which covered the wings of the former organ, and extended up the nostrils. The posterior nares, or back part of the nose internally, was also sore and considerably involved. Under the crusts on the face was observed a red and indolent surface, not presenting the indications of very active ulceration. The corners of the mouth were encrusted in the same way with ulceration that extended downwards under the chin on the left side. The forehead also at the time of his arrival at my house had over a portion of it a reddish or erythematous discolouration, which he said had but lately appeared.

The history of the case was, that he had suffered more or less for three years from these eruptions, their first appearance on his legs being preceded by what he termed small hard lumps under the skin, which inflamed, gradually enlarged, and ulcerated, discharging a thin and reddish fluid. At an early period of his becoming ill his neck had suffered from what he judged to be boils, which had left indelible cicatrices that furnished certain evidences of the nature of the malady afflicting him. He had undergone much suffering from medical treatment, generally in the form of caustic applications, purgings, preparations of iron, &c.

It was evident the patient had what might be termed a scrofulous syphilide. By a mixed treatment, determined upon in harmony with the diagnosis, the patient about the beginning of February exhibited decided indications of a cure setting in, the colour of the skin having changed from

the dark cadaverous hue to a more healthy one. The crusts gradually ceased to be renewed, the ulcers on the legs healed, and by the end of March the patient returned to New Zealand in the enjoyment of robust health. This person had about twenty years before contracted the venereal taint, and remembered having then had a chancre.

There are few persons who are not aware of what is generally understood by scrofula, as well as how very general the disease is amongst the civilised races. That it appears all around us every one knows, and it is universally believed to be the recognised cause of enfeebled constitution and cachectic conditions. That it is an evil against which every one desires to guard himself is admitted, and a dread of its existence and contamination frequently deters individuals from entering into matrimonial life. Nor is the precaution unnecessary, so serious frequently are the afflictions which scrofulous unions give rise to. Opinions are divided as to its origin and true character, some high authorities holding that it is of syphilitic origin, and that its phenomena are often eminently those of the syphilides.

There is not the slightest doubt but that thousands of persons, said to be scrofulous both by their friends and by their medical advisers, are actually the victims of the syphilitic taint, carrying about with them the dangerous element of destruction, without any scientific measures being taken to neutralise it, the treatment, if any, having no specific relation to the disease whatever. Hence the thousands of miserable objects said to be incurably scrofulous. Whether it be true or not that scrofula is essentially a syphilide, there can be little doubt of one thing—viz., that a vast amount of what is called scrofula is syphilitic. This is especially apparent in children born of parents supposed to be scrofulous, who may at some time have had impure coïtus.

Multitudes of children exhibit phenomena readily put down by ordinary observers as scrofulous, but which are actually allied to the syphilides. It often requires the observation of experts in this disease to determine for the satisfaction of parents what may be the nature of the taint with which the child is affected.

The most frequent situations occupied by the scrofulous eruptions are the neck and the head, and they are eminently so in the young, who are subject to what are termed running ulcers of the neck, and scrofulous ulcerations of the scalp. I have been obliged, from physical evidence, to pronounce many of these cases undoubtedly scrofulous syphilides, and have, by way of corroboration of the opinion given, several times been able to elicit facts which have fully borne out the original diagnosis. An instance may be taken from my syphilide cases which will illustrate this statement.

A lady called at my consulting-room with a child of four years of age in the arms of her nurse, which was said to have an aggravated form of favus, or scald-head; also an open tuberculous ulcer on the left side of the neck. The medical attendant, who had treated it for a considerable time, had given no hope of immediate restoration, being persuaded in his own opinion that the disease was in a marked degree a scrofulous one, which would in a year or two be outgrown by the child, the resisting force of the constitution overcoming it. On examination, I had no difficulty in coming to the conclusion that the child's case was one of decided syphilitic scrofula, and that the little sufferer had inherited it from its parents, or had contracted it from the nurse. The information given to the parents did not allay their alarm, but rather increased it. I, however, was able to encourage them by stating that the child would soon be restored. The fact of the child being tainted was not admitted by the parents, as both affirmed that they were

perfectly free from any infection of the kind. I continued to treat the child as for a syphilide, under which course it soon recovered, and nothing more was said on the subject.

A few months after I was summoned to attend the father of the child in low fever. I took occasion to search for evidences, if there were any, of the opinion which I had hazarded when treating the child, and on several places I found well-defined and characteristic discolorations that at once set the question at rest in my mind.

Constitutional syphilis is very commonly manifested with decided phenomena in newly-born infants, and if fully understood would account to the accoucheur for many of the abnormal conditions which appear at birth. The infant, having gone the full time, is shrivelled and imperfectly developed, as though it had been badly nourished in the womb. There is at the same time exfoliation of the skin of the hands and feet, and sometimes of the whole body, as I have noted; and here no doubt need exist as to the taint having been given by the father to the fœtus in utero.

CASE IV.—*Syphilitic Scrofula. Ulceration of face, back, and legs. Nodes on shin-bones. Glands of neck and arm-pits engorged. Cured.*

Mr. G. W.—This patient called upon me in July, 1868, and although apparently in robust health as far as general functional action was concerned, presented an appearance externally of more than ordinary repulsiveness, from severe ulceration of the face. On examination I found that the back and legs were covered with extensive scaly incrustations, and with ulcers in every stage of development.

The patient informed me that for a long period—nearly four years—the sores had continued to heal and reproduce themselves, successively occupying a still larger portion of

the limbs each year. Many of the ulcers which had healed had left evident discoloration of the characteristic type, and in some cases a slight cicatrix. The glands of the neck and arm-pits were also involved, being engorged and tense. The face, however, was the most important seat of the disorder, the whole nose and portions of the cheek being covered with thick dark yellow incrustations.

This patient described the advent of the disorder in much the same terms as one of the late cases mentioned—viz., that the first symptoms were in the form of small lumps in the skin, which were first colourless, then assumed a reddish tint, and eventually ulcerated. The skin in front of the tibia or shin-bone had always been tender, and prone to ulceration. The crusts, after falling off, left (as in the last case) an indolent red surface, which continued to form new crusts, and thus prolong the disorder without any apparent disposition to heal. I had no difficulty, from the history of the disorder as well as its physical characteristics, in pronouncing it a scrofulous syphilide, and I treated it accordingly. In about two months the patient was perfectly restored, as far as any external indications were concerned; and should he have been prudent enough to adopt the advice given him, there may not again be any further trouble of the kind. He remembered having had a hard chancre some years before.

As I briefly noticed, when treating of palmar syphilis, or the disease affecting the palm of the hand, that the feet also are sometimes involved in the same way, I think it advisable to make a few remarks in reference to the character that the syphilide assumes on the foot. It is not so frequent as the rest of the syphilides, nevertheless it appears very often, and I happen now to have a case under my care. In this one it takes the pemphigoide form, appearing at first as bullæ, or

blisters. When the foot is affected, the sole is generally covered with these bullæ in every stage of development, from the simple isolated blister to the confluent and ruptured. The seat of the eruption will first be noticed to be redder than usual, and uneasy; then large watery elevations of the skin will appear; these, after a short time, say two or three days, will rupture and discharge their fluid, and the thick dead cuticle will remain to peel off by degrees. On the same foot the bullæ or blisters will be seen in all stages. They are troublesome in the extreme, sometimes being very tender, and interfering with comfortable locomotion. When associated with chancre or ulceration of the throat, there can be no doubt of its being a syphilide. A competent surgeon will have no difficulty in extracting from the history of the case, and its local phenomena, sufficient to determine the diagnosis.

Generally, this affection of the feet assumes more of the scrofulous characteristics, having a dry and scaly exfoliation similar to the palmar syphilide, but there are many cases where the feet are covered with the pemphigoide eruption such as I have just described. This disease of the foot is almost equally obstinate with that of the palm of the hand, and requires much patience, as well as judicious treatment. As Mr. Berkeley Hill observes—"The prognosis of this syphilide is not good. It is a sign of great obstinacy in the disease, and its duration when no treatment is pursued is very long."

I have but briefly referred to the several forms of secondary syphilides, or syphilitic diseases of the skin, and I have by no means exhausted the numerous forms in which syphilides appear. Enough has, however, been said to apprise the reader of the very grave character of such disorders, and to lead him to dread their inroad, as well as to admonish him of the extreme folly of trusting to anything

like doubtful or extraneous aid. The frightful disfigurement of the face, and the torments of the several eruptions as they appear in every part of the body, cause the miserable victims generally to hide themselves from the public gaze, either by a retreat to the public hospitals or to their chambers, whence they seldom emerge, save at night, when the evidences of the horrible affliction cannot be seen.

All impure connections may not eventuate in such repulsive phenomena, but there is always more or less danger lest the poison should be brought into special activity by some peculiarity in the constitution. Syphilitic disorder of the skin is by no means so uncommon as the public generally suppose, for vast numbers are occasionally troubled with eruptions which they do not for a moment suppose to be syphilitic, but which are so; and many are carrying year after year syphilitic sores which they never dream are of a malignant nature, nor do many of those from whom they generally seek relief recognise their true character. Charlatans and uneducated specialists prey upon the sufferers in these diseases with unmeasured rapacity, and in almost all cases both mistake the character and stage of the disease, as well as fail miserably in affording that positive relief which the patient seeks in his distress, and which relief he would be sure to obtain from those regular practitioners who wisely make every branch of their profession their daily study, and give to it their earnest consideration.

The diagnosis of syphilitic eruptions is to be determined —1. From the history of the case. 2. From the symptoms accompanying the eruption. 3. From the eruption appearing in several forms at one time on the body. 4. From the general coppery tint of the eruption. 5. Little or no itching. 6. The form the eruption assumes: round perpendicular edges and unhealthy sores.

3. **LICHEN.**—The chief characteristic of this class of syphilitic exanthemata is the minuteness of the elevations, which has given to its most prominent and common type the name of Lichen. It is only sometimes fully to be recognised by passing the finger over the part affected, when a roughness of the surface will be observed, which on closer inspection will be seen to be caused by slight projections above the surface of the skin. The eruption is, as a rule, preceded by a loss of tone in the general health; sickliness in the expression of the countenance; the patient is pale, and has a dirty, cadaverous appearance, which he cannot on other grounds account for. His usual vivacity, of course, leaves him, and his friends cannot fail to see a marked loss of flesh, and depression in his animal spirits.

Ere long an eruption such as I have described appears, of which he is reminded by a slight itching or irritation occasionally, although this may not be a constant symptom. It may occur on any part of the body, but usually selects for its habitat the abdomen and inside of the thighs: there it assumes a rosy colour, that shortly passes by the usual transition into the characteristic coppery tint. It is to be found always in clusters or patches, varying much in dimension, sometimes covering large sections of the body, at others being very circumscribed. When the eruption occurs independent of the syphilitic taint, it is usually of but short duration, and is to be regarded as a simple phenomenon indicating a slight constitutional disturbance; but when associated with the venereal virus, it may continue a long time, and be the source of considerable inconvenience.

Ordinarily it dries and forms a whitish exfoliation, which rubs off, leaving a slight roughness of the part that is the seat of the eruption. The same counsel which I have hitherto given in reference to medical assistance applies here

also. The simplicity of the eruption is no argument in favour of allowing it to take its course. The active principle underlying the eruption, that has lowered the general health, and induced the debility of which this papulous eruption is the outcome, should be made the subject of special treatment. The infected person should have recourse in this case also to his medical adviser, or to some member of the profession competent to render him efficient relief.

CASE V.—*Papular Syphilide. Annular eruption over the whole back; confluent on sides and abdomen.*

Mr. James W——, of B——, consulted me in July, 1866, with one of the most remarkable annular papular syphilides that I have seen. The trunk was the chief seat of the eruption, very few spots occurring in the upper or lower limbs. Two or three large rings were to be seen on the outer aspect of the right thigh. The back, however, was the locality that attracted my attention more particularly. The eruptions were so regular and numerous that the back appeared to be tesselated with them. Divergie mentions cases of a similar nature.*

This one was singular amongst the many which I had seen. The centres of the rings were many of them of normal colour, while the eruptions around them changed in the usual way to the characteristic coppery tint. On the sides and abdomen the eruption was confluent, although annular. The patient had contracted syphilis about three years previously by impure coïtus, which was followed by chancre, as well as ulceration of the fauces. At the time of his consulting me he had mucous ulceration of the

* Divergie—*Maladies de la Peau.*

tongue, with very offensive breath. A course of chlorate of potash, hydrochloric acid, and hydrarg.-perchlorid., together with vapour baths and a generous diet, with the use of the permanganate of potash gargle, completely restored him.

4. **LEPRA.**—This syphilide may form on any part of the body; its chief characteristics are silvery-white scales, of a circular form, the centre of which presents a depressed red or coppery tint. "When Lepra occurs upon the palms of the hands and soles of the feet, the appearance presented is very characteristic; a red blotch forms and extends irregularly; the scarf skin becomes detached, and a dark red, coppery, tender surface is exposed, which is made more obvious by being set in a border of undermined cuticle. The exposed true skin is usually very tender, and becomes traversed by fissures following the flexion lines of the parts. These bleed, and render a secretion which may be either serous or purulent, possessing an offensive odour" (Miller).

Some dermatologists are of opinion that this syphilide does not make its appearance on the syphilised individual, but may upon his offspring. Erasmus Wilson, in his work on syphilitic eruptions, gives the following case:—"A man had infantile syphilis when a child; he married and had eight children, two of whom died as infants; of the six surviving children, three are the subjects of Lepra."

It has fallen to my lot to treat a large number of cases of this kind, and I find, on referring to my note-book, that they were developed upon the skins of persons who had previously suffered from primary and secondary symptoms following the infecting sore. The following case is interesting.

CASE VI.—*Lepra from head to foot. Great emaciation. Enlargement of both knees. Loss of hair. Condylomata on the tonsils. Rawness of scrotum.*

Mr. J. R., from Queensland, called upon me about five months ago, after being told by a medical man that his case was incurable. He had become extremely emaciated, with a dirty-yellow or cadaverous hue of the skin. He had pains in all his joints, with considerable enlargement of both knees, which were very painful at night in bed. The whole of the hair of the head had fallen off, save a small patch on the occiput. Another remarkable circumstance, which I had often noticed before, was that the hair, which was naturally curly, became perfectly straight. His lips were ulcerated and bleeding; his tongue swollen, ulcerated, and well marked with dental impressions. On each tonsil there were condylomata or syphilitic vegetations; the same appeared at the verge of the anus. He was covered from head to foot with syphilitic lepra. Small ulcers were to be seen in each nostril. The scrotum was raw over its entire surface, requiring the greatest care and attention in dressing.

The scrotum was dusted over with a powder composed of subchloride of mercury, oxide of zinc, and finely-powdered starch, twice daily. He was ordered warm baths at night; a nutritious diet, with stout for dinner; a gargle of chlorate of potash, hydrochloric acid, and the perchloride of mercury, with rose water, to be used thrice daily; and he took internally iodide of potassium, carbonate of ammonia, with tincture of cinchona, every four hours; this was ultimately changed to the triple solution of Donovan; and lastly, the syrup of iodide of iron was prescribed.

5. **MUCOUS TUBERCLES.**—This syphilide is a common form of secondary syphilitic manifestation. It generally begins as a flat, oval elevation, from a quarter to half an inch in diameter; at first rosy red, it soon passes into a condition like raw ham, and secreting a viscid and offensive discharge; these symptoms, however, will soon yield to the application of calomel and oxide of zinc ointment, having previously brushed the part over with a solution of the chloride of zinc. Of course the patient must undergo a course of antisyphilitic treatment.

The worst form of this disease I ever saw was the following.

CASE VII.—*Mucous tubercles of mouth and throat, lips and tongue, armpits and scrotum. Loss of hair, pustular disease of skin. Cured.*

Mr. ——, aged 32, from Warrnambool, consulted me during the year 1869, with the following history:—Five years ago he contracted a hard chancre, accompanied by swelling of the groin and neck; this was followed by spots on the skin of a rose colour, which ultimately changed to a coppery hue. He states he has always been under medical treatment, and becoming much alarmed at his present condition, he determined on coming to Melbourne for advice. When he entered my consulting-room, he presented a most pitiable appearance; he had very little hair upon his head, and his face and body was so thickly covered with pustular eruptions as to look like a person suffering from small-pox. The inside of the mouth and lips, together with the throat and tongue, were studded with mucous tubercles or condylomata. The angles of the mouth, the armpits, scrotum, and arms were also similarly affected. He was also weak and desponding.

His mouth was too sore to allow him to eat solid food; I therefore gave him plenty of gravy, soups, beef tea, mutton broth, fresh milk, eggs beaten up in wine, and nutritious jellies. He was also ordered hot baths, at a temperature of 100 degrees, containing hydrochlorate of ammonia and the perchloride of mercury, every third night, and he took a mixture containing carbonate of ammonia, iodide of potassium, perchloride of mercury, and hydrochlorate of ammonia, with Batley's solution of cinchona, three times daily. He was fortunately enabled to take this medicine (with rapid improvement of the symptoms) for six weeks before he complained of slight tenderness of the gums; the medicine was then stopped, and he was ordered chlorate of potash, perchloride of iron, and arsenic, with tincture of quassia bark.

Under this treatment, and the application of a strong solution of alcohol, hydrochloric acid, and corrosive sublimate to the morbid growths, it was astonishing how rapidly he became convalescent, and all external symptoms had quite disappeared. I providentially put him on the triple solution of Donovan for two months, at the end of which time I replaced it with a mixture containing iodide of potassium, arsenic, and the citrate of iron with quinine, and shower baths.

"Mucous patches are met with both on mucous membranes and on the skin, especially at the junction of the latter with the former, also on any part of the skin likely to be kept moist by exudations or secretions. The most common sites are the female external genitals, the anus, the perinæum and scrotum, the angle of the mouth or nostrils, the fauces and inner side of the cheeks, especially if a ragged tooth chafe the part. They form also, but less commonly, between the toes, in the axilla, in the folds of the groin and breast,

at the navel, or under the chin; situations that, in many stout persons, are kept constantly moistened by perspiration.

"When seated round the anus, they often spread along the perinæum, in groups of half-a-dozen patches at once. Here, too, they may assume a rough, granular, wart-like appearance, and be broken up by cracks and fissures (rhagades). Constant chafing of the skin, opposite a patch, converts the irritated part into another surface of similar size and form. They occasion much soreness, whence they attract the patient's attention sooner than any syphilitic eruption. In both sexes the initial lesion may, when kept moist, change to a mucous tubercle, by spreading a broader surface, and secreting a thin fluid. The secretion of mucous patches is very contagious through its abundance, and through the early period of the disease at which the discharge is produced. In women, the mucous tubercle is frequently the first symptom observed, and sometimes the only one detected, in the whole course of the disease."*

THIRD DIVISION.

Vesicular S. Diseases of the Skin.

In describing the many forms of vesicular or herpetic syphilis, it is well that the lay reader should know what is the strict meaning of the term. A vesicle, then, is a small bleb which rises upon a portion of the body, that may be slightly reddened, and which fills with a clear fluid. The vesicles vary in size, from a pin's head to a bean. People generally term these small blebs blisters, and are not alarmed at their

* *Syphilis, and Local Contagious Disorders*, by Berkeley Hill, M.B.

presence, if they are solitary, or not very numerous. Syphilis, when assuming this form, is called vesicular syphilis. The first in order of the vesicular syphilides is

1. **HERPES.**—The nature of simple herpes is seen in the small blisters or vesicles which many people have, and especially the young, on the lips, at the close of a common cold or catarrh. When there is an unusual proneness to this kind of eruption on the mouth, it is prudent to suspect that it may be complicated with the syphilitic taint. Herpes also occur on several parts of the body besides the lips, and vary in size from a millet-seed to a pea, and always have a bright red base in the adjoining skin. The herpetic vesicles contain a yellowish and thick fluid; they break, and after discharging their contents, form a thick crust, which when picked off is renewed.

Under this herpetic crust there is slight ulceration, which is sluggish, and prone to assume a chronic form, accompanied by considerable soreness. Other portions of the face besides the lips are subject to these patches, which not uncommonly are found to be accompanied by similar eruptions on other places, such as the genitals and the rectum. The eruption may sometimes appear in the form of rings, which may become umbilicated in the centre, and so closely resemble chicken-pox that they have been mistaken for that disease.

Although these several forms of herpes may be considered simple and trifling, still they are undoubtedly indicative of a long and tedious course. Many persons very imprudently allow this disease to continue unchecked, without seeking proper medical aid, and thus subject themselves to considerable and unnecessary inconvenience, for it is not difficult, by judicious treatment, to prevent the recurrence of this very troublesome disorder.

CASE VIII.—*Exanthem, &c. Rash, variable and intermittent. Tedious herpetic eruptions on the lips; ulceration of tonsils, &c. Pains in the heart. Loss of hair, &c. Loss of memory.*

Mr. M'C., a schoolmaster from the country, called upon me about ten months ago, and consulted me in reference to his health, which had for some years been ailing, without his being aware of the reason. On examination, I found it necessary to question him as to the probability of his having been at some time of his life infected by the venereal poison. He informed me that about nine years ago he contracted syphilis from impure coïtus, and had then a chancre on the penis. He had not seen anything of the kind since then until about two years ago, when he noticed an eruption that appeared and disappeared at irregular intervals, with frequent breakings out (herpes) on the lips, for which he could not account. At the same time, he had small ulcerated spots on the tonsils and throat, which after a short time disappeared.

On consulting me he complained of paroxysms of violent pain in the heart; his hair was nearly all gone; his memory so seriously impaired, that it destroyed his efficiency in his profession, and necessitated his asking for leave of absence in order to recruit, and put himself under my care. I treated him as a person suffering from the syphilitic taint, and recovery at once set in. Although he had lost his hair, a new thick crop soon commenced growing, and continued. A good appetite returned, his memory again became vigorous, and he resumed his duties in perfect health. I had no doubt but that this patient owed all his misfortunes to venereal taint, and was rapidly proceeding to a tertiary condition. He was ordered a generous diet, the body to be kept warm, warm alkaline baths every night, and the scalp

to be washed twice a day with a lotion composed of arsenic, iodine, and mercury, with glycerine. Internally he took, successively, chlorate of potash, corrosive sublimate, hydrochloric acid and cinchona, iodide of iron, iodide of sodium, strychnine and iron, and hyperphosphate of iron.

CASE IX.—*Vesicular Syphilide. Annular eruptions on several parts of the body, on the nose and lip. Invasion of the eye.*

R—— (T. M.). This patient came from Ballarat, having some months before contracted the venereal taint. On examination no chancre appeared, but it happened that one had been on the penis, and also on the scrotum, or covering of the testicles. They had been succeeded by eruptions of a vesicular character, which the patient did not suppose to be of syphilitic origin. On the chest, sides, and back there were distinct annular eruptions of small vesicles or blisters, and red patches, which were troublesome and tender. The upper lip and right side of the nose were also the seat of the same eruption. The left eye had become involved so as to exhibit a distinct alteration in the iris, and there was considerable injection of the whole surface of the conjunctiva. This was one of the simpler syphilides, but sufficiently alarming and distressing to the patient. There could be no reasonable ground for doubt as to its true nature, owing to its history and the antecedent chancre. The treatment was antisyphilitic and specific; soon the eruption disappeared, and the patient returned home apparently quite restored.

I treated this patient at first with small doses of hydrochlorate of ammonia and corrosive sublimate, with tincture of cinchona, and to have an alkaline bath every second day; under this treatment the eruption soon disappeared. I then

ordered him the iodide of iron and shower baths, with plenty of well-cooked vegetables, ripe fruit, and warm clothing.

2. **ECZEMA**—so called because the grouped vesicles were supposed to resemble bubbles of boiling water, also from the painful burning that accompanies them. It appears in patches which have a shining appearance, scattered irregularly over a limited portion of the body, and usually in groups. It is, in fact, the characteristic representative of this class. These small vesicles remain so, and do not rupture as all others of this class do, nor does the skin around them crack as it does in what is termed true or uncomplicated *Eczema*. It is, in fact, more frequently of a syphilitic nature, and results from some infection having been taken at some antecedent period. "There is no itching of the vesicle, as is so common in simple and uncomplicated eruptions of that kind. It principally attacks the face, and the roots of the hair upon the neck."* After these vesicles have continued for about five or six weeks without any particular change, the fluid in them dries up, and the characteristic coppery tint presents itself. It is frequently seen in children.

CASE X.—*Vesicular Syphilide. Eczema. Great pallor and prostration of body. Cured.*

Three years ago I was consulted by an officer of Her Majesty's Indian forces with the following symptoms:—Great emaciation and failure of strength, with pains in all the joints, and general uneasiness. On stripping him, I found, scattered over the body, vesicles varying in size

* Divergie.

from a pea to a bean. Some were filled with a clear fluid on an elevated area, and others contained a fluid slightly puriform. He was feverish, and had lost his appetite. The tongue and tonsils were also ulcerated. He said he had suffered from chancre three years ago. After a few days treatment the vesicles shrank; the areola were covered by scales, which fell off, leaving a copper-coloured papule, so characteristic of all syphilic eruptions.

This patient was under my care for six months, during which time the disease disappeared, returning again at brief intervals, until it had run its course. Hot baths, containing the hydrochlorate of ammonia, with perchloride of mercury, were ordered frequently; his diet was liberal, consisting of soups, fowl, eggs, fish, essence of beef, claret, with green vegetables and fruit. Plummer's pill was given at bed-time; iodide of potassium, carbonate of soda, and infusion of orange-peel, during the day. This treatment was persevered in until all the symptoms changed, when I finished up the cure by allowing him a fair quantity of wines and beer, and giving him a mixture containing the citrate of iron, iodide of potassium, and arsenic.

3. **IMPETIGO** *(Vesicles about the size of a split pea, on a ground of inflamed skin, terminating in a yellow-brown crust).*—This syphilide occurs in groups, and it is even more difficult to discriminate between the syphilide under this name and the common Impetigo. It is frequently seen to attack the beard and the hair of the head,* and is then still more difficult of recognition, requiring much experience

* "Impetiginous eruptions most commonly occur upon the face, especially the wings of the nose, commissures of the lips and eyelids, the margins of the eyebrows, and among the beard or whiskers; sometimes also upon the mons veneris and scrotum."—*A System of Surgery*, by James Miller, F.R.S.

and correct observation, especially where there are not co-existent with it some one of the more determinate forms of syphilis.

It is one of the most annoying and disfiguring of the syphilides, and has been in many instances of long duration. The patient will in some cases find that the glands of the neck are involved at the same time, being swollen or engorged, which symptom will be of service in guiding one to a recognition of the true character of the disease. When this accompaniment is observed, the anti-syphilitic course should be adopted.

These syphilides are amongst the most annoying and offensive of the eruptions which the syphilitic taint induces, and unless wisely treated are prone to become chronic, to sap the foundations of the constitution, to depress the spirits of the patient, and bring on premature death. When the rash is diffused over the whole body, it is generally a symptom of the early period of syphilitic infection; when it occurs on the limbs alone, it may be looked upon as symptomatic of the transitional period from the secondary to the tertiary form of the disease. The treatment, therefore, will be different in the two cases, and must be left to the judgment and experience of the practitioner to determine. I may add that this syphilide is easily cured when judiciously treated.

FOURTH DIVISION.

Pustular S. Diseases of the Skin.

The pustular syphilides are by far more serious eruptions than those which have hitherto been noticed, involving, as they do, greater destruction of tissue, and vital changes which operate with greater influence upon the animal

economy. The disease is to be seen most frequently on persons of a cachectic condition of body, or what is usually termed bad health. There is then little vital energy to resist the inroad of the disease; and those morbid changes to which the constitution of the patient may be prone, proceed uncontrolled to exhibit themselves in the shape of pustular eruptions.

The common situations of these syphilides is on the lower limbs, although they are to be seen on every part of the body in some patients, and when on the face they sometimes give a most revolting aspect to the countenance. They do not occur in the palms of the hands or on the soles of the feet. They are extremely tedious, continuing to appear in successive crops for a long period, baffling all attempts to check their development that are not based on correct principles of treatment. The pustules are at first red, and they form elevations, which afterwards change to vesicles containing pus. This soon dries into a yellow crust, and leaves an elevated sore, which is prone to run into a chronic state. So striking indeed are these crusts, in some rare cases, that the patient has the appearance of one recovering from small-pox, or who has become the victim of that terrible plague known as leprosy.

This disease is in an especial degree aggravated by bad or unscientific treatment (as I have frequently witnessed), and by want of cleanliness. Some of the scabs are, in bad cases, as large as a shilling, continually increasing in size by reason of the constant purulent discharge, so that in many instances the scab rises to nearly half-an-inch above the skin. There have been periods when this form of syphilis prevailed as an epidemic, nearly every one who had contracted the taint exhibiting the same disgusting phenomena.

Modern science and greater attention to sanitary regulations have, however, so far controlled it, that it seldom is

found in so aggravated a stage. It does, nevertheless, sometimes assume its worst forms, accompanied by an enfeebled constitution and loss of appetite. In all such cases the nutritive functions are imperfectly performed, and the virus acts with uncontrollable power. Extensive mischief often results from bad treatment or neglect. Portions of the body become discoloured, dark, and coppery, and the ulcers irregular, sluggish, or indolent; the attack upon the neck and scalp is more serious as the parts are exposed; the hair follicles are invaded so as to destroy the bulb, and thus cause destruction of the hair itself.

There are varieties of this pustular eruption, each of which require a separate notice. They are—*Ecthyma*, *Acne*, *Rupia*, and *Pemphigus*.

1. **ACNE**—groups of hard, inflamed tubercles, which sometimes remain for a considerable time. It first appears in isolated pustules, coalescing by degrees, with a hard base, which are slow in forming and disappearing. It is much more indolent in its course than any other pustule; thus it is not so pustular, nor so corroding and destructive to the body. It is slightly conical in form, and hard to the touch. A small crust of yellow dry matter forms on the top, which soon falls off in minute scales. Numberless persons have these acne, or small pustules, on their faces, and in many cases they are very numerous, covering most of the forehead and cheeks. There is a simple acne, which is to be distinguished from the one with the syphilitic complication by the practised eye, but without experience it is difficult, if not impossible, to determine it; therefore, those who are troubled with these pustules should take the precaution to ascertain whether this troublesome and obstinate affection is complicated with syphilis or not—*i.e.*, whether it is a syphilide. The following is one of every-day occurrence.

CASE XI.—*Inveterate Acne, in both stages, suppurating and desquamating.*

H. P., of Lonsdale-street, Melbourne, consulted me in the month of March, 1865, with a most inveterate case of the acne syphilide. He was suffering at the time from ulceration of the fauces, and nocturnal pains in the legs from the hips downwards. He had also a discharge from the urethra of a syphilitic character. A gentleman who treated him before pronounced it gonorrhœa, but on examination with the urethroscope I found a urethral chancre. He had well-marked acne *all over the body*, with a hard, raised, and red base, especially on the face and back. Some of the pustules had gone on to suppuration, and others to desquamation and ulceration.

The inveteracy of the eruption, which had existed a considerable time, and resisted every effort at amelioration; the history of the case from the original chancre, which had appeared four years previously; and the accompanying symptoms—determined the diagnosis as to its being syphilitic acne.

I accordingly treated it with small doses of mercury and the iodides, and with the best results; for in the course of thirteen weeks the eruption and accompanying symptoms had completely disappeared. He, however, took iodine, arsenic, and mercury, with Turkish baths, for some time after all external signs had left; and lastly arseniate of soda and iron.

As a general rule simple acne has the face and the upper part of the trunk as its places of selection, while the syphilide occupies the inferior extremities. This is, however, by no means invariable with the syphilide, for the acne of the face is often found to be modified by the more serious disease.

One very simple diagnostic sign is that the syphilide leaves a coppery spot, which the simple acne does not. In addition, the syphilitic acne has been preceded at some time by other evidences of the venereal taint.

2. **ECTHYMA.**—This syphilide may attack any part of the body, and usually occurs in large isolated pustules, depressed in the centre, and which, like small-pox, leave marks behind them. It is also the most common. There are occasionally instances in which all three of these eruptions are presented at the same time on the same individual, but as a general rule they are manifested singly. The pustules may be isolated or confluent—*i.e.*, running together, and in groups, always accompanied by ulceration, which is more or less deep and enlarged. This disease commences by a slight elevation of the skin, as though it were injected, having a reddish hue. It is papulous, and soon appears to have under it a watery or serous fluid, which ere long changes to pus. The pustule may be very small, no larger indeed than a pin's head; still it sometimes reaches the size of a nut, which is in fact the most common approximation, the colour being a yellowish white.

The pustule at length breaks, and the pus spreads out, forming unsightly crusts or scabs, thick and irregular. After these crusts have accumulated by accretion they fall off, generally leaving a cicatrix or mark behind them. Very frequently a sore is exposed instead of a cicatrix, which may be soon healed, but nevertheless a mark is left on the formerly ulcerated spot. There is in some constitutions a proneness to repeat the formation of crusts indefinitely, and to so superinduce the scales on each other as to resemble the eruption called rupia. Under the best treatment ecthyma will generally require three or four months for cure.

CASE XII.—*Syphilitic Ecthyma. Vesicular and pustular stages on back and shoulders, and upper and lower limbs. Eruption annular. Infected three years previously.*

Mrs. L., of Emerald Hill, Melbourne, came to me about the end of October, 1868, having a most distressing and offensive skin disease. It was at once apparent that it was a well-marked case of the pustular syphilides. It also presented both the vesicular and pustular characteristics. There were central crusts surrounded by a border of pale skin; near and beyond this pale portion there was an inflamed space, on which were herpes in vesicular and pustular stages. It reminded me of some cases recorded by Divergie,* being exceedingly close in parallelism, and rather unusual. The eruption was present on the trunk, especially on the back and shoulders, and on the upper and lower limbs. It was also on the forehead and face.

The spots on the body and thighs were thickly distributed, and varying in colour. The patient stated that she had been suffering from the eruption in rather less development for upwards of six months, and could get no relief. She had been constantly subject of late to sore throat, and at the time of her consulting me had severe ulceration of the tongue. Her husband, according to her report, had contaminated her three years previously, from which she had shortly afterwards ulcers on the genitals, with discharge, which healed spontaneously after some time. A course of anti-syphilitic treatment for nearly five months restored her to perfect health.

This syphilide is more frequently seen in women than in men. It is in development between the ordinary pustule and rupia.

* *Maladies de la Peau.*

3. **RUPIA.**—This name is given to pustules that form larger crusts than any other of the syphilides. It is a tuberculo-vesicular eruption which forms unhealthy, foul, burrowing ulcers, that exude a reddish, ill-conditioned matter. It is also an eruption which is later in appearing, sometimes not occurring for years after the taint has been contracted. The other syphilides which I have described appear at earlier periods, some of them a few days or weeks after the virus has been absorbed.

Rupia, however, is one of the last forms that syphilis assumes, and is remarkable for its size, colour, and form. It is eminently a syphilitic disease. It is frequently seen in our hospitals, and even in private practice. During my long connection with the Melbourne Hospital several cases came under my notice, and I have also, in the course of a large private practice, met with a considerable number, in nearly all of which many years of infection had preceded the eruption. When it appears it is an indication that the health of the patient is much reduced, and that there has been considerable declension of the vital forces. General debility is nearly always a concomitant of this exhausting affection.

The pustules are in some instances the size of a large grape, and the fluid which they contain is at the commencement clear, but, as in all the other pustular syphilides, soon changes to the pustular condition. Having ripened in the course of two or three days, the pustule breaks, and the pus exudes, dries, and forms a cake or scale, which remains adherent. The flow of pus continues day after day, and drying increases the thickness of the already-formed crust.

This gradual formation of the scab goes on until it assumes the form of a semi-conical elevation, of a greenish-brown colour, that contracts, leaving the sides or edges of the ulcer exposed.

When the crust is detached, either spontaneously or by accident, it is found to conceal an ulcer of considerable depth and of variable extent, being deep in proportion to the duration of the crust. Sometimes the ulcer does not form the conical accretions, but retains the open form, presenting a foul surface, thin, livid, or pale, with excavated edges and an inflamed areola. The ulcer is also exceedingly difficult to heal, and leaves a livid and purplish stain.*

There is another variety of *Rupia* which does not exhibit the conical crust as before described, but which forms a large convex crust that covers the whole of the ulcer, giving the appearance on a miniature scale of the back of a turtle, or of a helmet. These convex hard scales are generally a dark green, sometimes approaching to a black, but the base is always of an earthy hue. They are, as a matter of course, indications of the extreme gravity of the disorder, and sufficient to warn the sufferer of the peril in which he is placed.†

Sometimes it will happen that the secondary syphilide called rupia will appear, but in one, two, or three ulcers; and may select the face, where it may occupy nearly the whole of one side. From a central hard crustaceous tubercle, it will spread, by continuous and confluent tubercles, until it occupies a large portion of the cheek.‡

It sometimes forms a zone or belt round the body, and may be found existing in all stages at the same time. Some of the sores are much more corroding than others, not forming with such rapidity or regularity the characteristic protecting crust. This syphilide is common to the lymphatic temperaments.

In fact, *Rupia* is so characteristic that once seen it can never afterwards be mistaken, and the patient who may be

* Erasmus Wilson. † Divergie. ‡ Divergie.

unfortunate enough to have such an eruption upon him will at once recognise it from this description. Successive crops of the pustules appear, so that the sufferer on observing the healing of one ulcer is not sure of the final departure of the disease, but may expect to witness fresh pustules cropping up in other places.

This form of syphilide is so exhausting to the constitution —which is generally in a pyogenic state: *i.e.*, disposed to form pus—that vigorous and judicious measures ought to be taken to restore the *vis medicatrix naturæ*, or nature's own reactionary forces, and to neutralise the action of the venereal poison.

When this stage has been reached, every effort that science and skill can suggest should be applied to save the constitution, if possible, from succumbing to the dreadful power of the disease. Modern science has done much to reduce its virulence, and overcome it. The following are illustrative cases.

CASE XIII.—*Pustules in every stage of development. Rupia; Chancres; Crusts, an inch and a half in prominence.*

This patient, A. G., a carpenter, residing in one of the suburbs, presented himself on the 11th of December, 1867, having about sixteen or eighteen distinct pustules in every stage of development. Most of them had the peculiar well-marked shell-like covering, and were generally of a dark dirty-green colour; some of the incrustations being convex, others having the contracted conical form, leaving the edges of the ulcers exposed.

The patient was of a nervo-sanguine temperament, with an infusion of the lymphatic. Other eruptions of the same character were found on the arms and sides, but much larger, and if anything more malignant, than those on the

face. There were at the same time some bullæ which were in the initial stage, rapidly progressing to the full-formed rupia.

This patient had several times had chancres, and remembered having been twice confined to his bed by suppurating buboes. One of the crusts was an inch and a half in prominence, and several were at least half-an-inch from the depressed base to the point of the cone. Some of the oldest ulcers had healed, the crusts having been rubbed or knocked off, and the usual discoloured cicatrices left behind. As is well known, this syphilide is extremely difficult to heal, and often defies the most able administration of the physician and surgeon. This patient, however, being only about 32 years of age, and of a naturally good constitution, was, by the end of March or the beginning of April, 1868, completely free from ulceration, having no external indication of the disease beyond some very decidedly characteristic cicatrices here and there.

CASE XIV.—*Ulceration on upper and lower limbs, face, and back. Nodes on legs. Ulcerated throat and tongue.*

In August, 1866, I was sent for by a man who had just arrived from South Australia, having a well-marked rupia syphilide in every stage of development. On entering his room, I observed on the face several large crusts—three on the left cheek, two on the chin, and one immediately over the right eyebrow. Those on the chin had deep offensive ulceration round them, from which protruded a series of concentric scales, diminishing slightly in size, the apex being nearly half an inch from the base. On examining him further I found several scabs of the same kind, varying in size, colour, and development. On the back and sides were some sores, with but thin, limpet-shaped laminæ upon them,

but extended, and having all the marked characteristics of the worst kind of rupia. The arms also presented examples of different kinds, some being yellow, others green, elevated, and hard. He complained of nocturnal pains, and I found two nodular prominences on anterior portion of the left tibia. For a long time he had been constantly suffering from sore throat and tongue. He stated that he had been infected seven years previously, and then had chancre and bubo. He had also taken mercury without much benefit. He left in nine weeks, with his skin clean and his health restored.

The treatment in both these cases consisted in the application of carbolic acid with glycerine, by means of a camels-hair pencil, every other day; vapour baths, a good nutritious diet, together with the internal administration of iodide of potash, arsenic, and citrate of iron, in a decoction of sarsaparilla; old port wine, eggs, and oysters were also liberally allowed.

4. **PEMPHIGUS** *(watery bubbles or large blisters).*— Another form of syphilide passes under the name of *Bullæ*, which signifies that the eruption takes the form of a large blister, and pus may be mixed with the serum in the blister. They are thus distinguished from the ordinary vesicle, which is always much smaller.

The largest type is called *Pemphigus*, and is rare. Even in its simple form, uncomplicated with syphilis, it is seldom observed in the adult, and less still in the compound state. It is not often seen in the adult syphilitic patient, but generally in the young. Ricord gives examples of it occurring in young people, and I have myself met with such cases in this colony, which have been well pronounced. It is hazardous, however, to

give an opinion in favour of any case of *Pemphigus* being syphilitic, without the existence of corroborative indications about which no doubt can be entertained. Should there be a chancre or other typical expression of the taint, it may then be wise to conclude that the bullæ or pemphigus is thrown out by it.

The highest authorities have differed in opinion as to the existence and frequency of this syphilide, but there are names of great weight on the affirmative side, amongst whom may be mentioned Ricord and Bassereau. It is a disease that not unfrequently is noticed in newly-born infants, and is thought to be—as doubtless it often is—an hereditary taint given in utero by the mother. The course of the eruption is that the skin at a certain spot becomes uneasy and red. Upon this red patch a whitish spot appears, and the skin rises and fills with a serous or watery fluid. The eruption almost exactly resembles a burn, the pain being absent, or it has the appearance of a blister from the use of cantharides. In a few days it breaks, the fluid is discharged, leaving a reddish surface, with a slight exfoliation of dried serous matter.

Whenever these phenomena are noticed, it is desirable that they should be submitted to the inspection of a competent medical man, who may render the required assistance, and set at rest the anxiety of those who may be interested in the health and constitutional soundness of the patient. Several children have been brought to me covered with these syphilitic bullæ, having been treated by other practitioners for native-pox, without advantage. The disease yielded at once to anti-syphilitic treatment. I shall enter more fully into the cause of this syphilide when treating of hereditary syphilis; but I could not omit briefly directing attention to it as an order of syphilide belonging to this division in specific dermatology.

FIFTH DIVISION.

Tubercular S. Diseases of the Skin.

The Tubercle is a solid rounded elevation under the skin, which is movable under the finger, and is as hard as cartilage. It is amongst the syphilitic phenomena which occur at a late period, when the constitution has been long under the influence of the virus; and when it proceeds to ulceration—as it is always prone to do—it is difficult of management, and on healing leaves an indelible mark. It presents itself in several forms—1st, scattered or diffused; 2nd, in groups; 3rd, as a penetrating ulcer; 4th, as a serpiginous eruption. The tubercle is a sluggish eruption, and indicates the period of transition between the secondary and tertiary phenomena, and the entering upon a stage more alarming and destructive than any of the preceding. It will frequently occur many years after the primary symptoms of infection have passed away, suddenly, as it were, arousing the patient from the delusion that the enemy had for ever disappeared. It, unfortunately, is not an uncommon syphilide, but is seen in our streets and hospitals, represented in the disfigured countenances and consumed features of its victims.

It is one of the most terrible forms of the syphilitic invasion, and by the rapidity of its progress often strikes terror and amazement into the heart of the unfortunate sufferer and his friends. No part of the body is exempt from its ravages, but its especial seats of destructive activity are the face, the forehead, the nose, the shoulder-blades, the inside of the legs, the genital organs, and even the mouth of the womb. It also attacks the tongue, the palate, and the throat.

Mr. James Miller, the late distinguished Professor of Surgery in the University of Edinburgh, and who has devoted

a great deal of time to the study of syphilitic diseases, describes the syphilitic gummata as having three periods of progress, which require to be distinguished.

"1. They exist as dense ovoid or nut-like nodules, varying in size from a pea to an almond—hard as cartilage, movable below the skin, gliding like a fibrous tumour beneath the fingers, and usually unattended with pain.

"2. They become softened, larger, and adherent to the integument or mucous membrane, which assumes a dull red or dusky violaceous tint, and is elevated.

"3. The centre of the swelling fluctuates, thinning and pointing of the skin ensues, and a central aperture forms by ulceration, from which a gummy, tenacious matter escapes. Gradually a yellow, deep, sloughy-looking ulcer is disclosed, with undermined and over-hanging margins. The textures around usually become thickened and brawny, and when several such 'areolar tissue ulcers' exist, grouped together (as is usually the case), a probe introduced at one opening may pass towards the others, but not so readily as in the common scrofulous ulcer. When cicatrisation takes place the thickening is removed, while the skin around assumes a more normal tint, and is adherent to the tissue below. The margin of each of the sores then becomes continuous with the granulation, with which the surface of the ulcer is now covered; and when healing is complete, a depressed cicatrix, at first of a dark red or livid colour, occupies the site of the sore; but this ultimately, when sound, becomes of a dull white colour.

"These *gummata* may occur upon any part of the body; the lower extremities, the extensor aspects of joints, the front of the thigh and the scrotum, are however their most usual sites. They also form in the substance of the tongue, where they are liable to be mistaken for cancer of that organ. In the soft palate and mucous membrane of

the pharynx and nares, they occasion at times a very extensive and almost phagedænic ulceration of the textures. Affecting the orifice of the eustachian tube, they produce more or less permanent deafness. Involving the pharynx, œsophagus, rectum, or vagina, stricture of these canals may be produced by the cicatracical contraction. Implicating the larynx, aphonia, œdema glottidis, necrosis and exfoliation of the cartilage, and permanent contraction of the organ of voice, may be expected to occur. Similar nodules to those which constitute the early stage of these gummy tumours, and 'areolar tissue ulcers,' are coetaneously met with in internal organs, but are supposed by some not to have the same tendency to undergo softening changes as when superficially situated. By others, again, all tertiary affections of periosteum, bones, nerves, and internal organs, are believed to be precisely analogous in morbid anatomy and pathology of formation to these 'tertiary nodules' or 'tubercles,' modified as to symptoms and results only by the site and nature of the tissue in which they occur."*

Mr. Acton says, when writing on tuberculæ—"I have witnessed examples in which a large portion of the thighs, as well as the whole organs of generation, vagina, and neck of the uterus, have been entirely covered with a crop of tubercles, attended with such local irritation and offensive smell that the patient was a most disgusting object. In this case rubbing one part against the other caused pain. By inattention to cleanliness the disease has a tendency to extend."

There is also what is called the deep or penetrating tubercle. These tubercles are late in appearing, not presenting themselves until the system has been for some years

* *A System of Surgery*, page 1182.

under the influence of the virus. They are painless and indolent, and become frequently as large as a nut. They are either absorbed or ulcerate. In the latter case the ulcer is deep, and gives much trouble during treatment, being slow to heal. In most cases of this kind there are other syphilitic indications which leave no doubt as to the peculiar nature of the disorder.

Occasionally it is seen in large irregular circles on the arm, where the tubercles have arranged themselves in a certain order, leaving the central portion, or most of it, of the natural colour, the portions only near the rings being altered in tint. The tubercles have a semi-livid and raised firm base, which is so characteristic in most of the later syphilides. There is always, after such a severe alteration of the integument, a decidedly marked residue, in the form of discoloured skin, covering the whole seat of the recent eruption.*

1. **SERPIGINOUS, OR CREEPING TUBERCLE** *(Lupus).*—This is a syphilide which ulcerates rapidly, and has a tendency to spread and become very destructive, forming unseemly furrows on the skin, and extending sometimes in all directions, although commonly the ulcer is noticed to proceed in one direction while healing at the opposite border. This syphilide is much to be dreaded, by reason of its great disfigurement of the face. It is usual for it to appear about the angle of the nose, on the forehead, and chin; in fact, it sometimes wanders about, encroaching upon any and every portion of the face, leaving, as it proceeds, ugly and depressed white scars, that give a forbidding expression to the countenance. This kind of tubercle rarely is seen in the genital organs, according to the observations of some syphilographers; I have, however, met with it.

* Divergie.

That ulceration which is found on the genitals commences sometimes as a chancre, which the tubercle does not, the only resemblance between them being their tendency to spread. What appears on the genitals usually is better known as the phagedænic chancre; that on the face, as the serpiginous or creeping tubercle. They are both very destructive in their progress, and are the cause of considerable alarm to the patient, who will do well, if he values his life, to avoid anything like quackery or hazard, in the treatment of his disease. The creeping and corroding ulcer now under special consideration does sometimes invade the covering of the testes, and is occasionally very destructive to this tissue, consuming it with great rapidity, indeed so far as to lay entirely bare the organs which the covering is designed to protect. Whenever this syphilide has made its appearance on this appendage, the most prompt and careful measures should be taken to arrest its progress, and this cannot be done by a resort to the multifarious and dangerous nostrums which are everywhere forced upon public notice.

The tubercular syphilides are of such serious consequence to those affected by them, that every possible step should be taken to eradicate the virus from the system before it has so fructified as to reach that terrible stage which has been faintly sketched. When that stage is reached, the constitution is a prey to a devouring influence that will, save under the highest scientific treatment and the greatest care, eventuate in miseries that must render life a burden, and cause the unhappy wretch to hail the approach of the hour that shall throw its dreary pall over all earth's miseries.

Thousands of individuals having the venereal taint are actually in that state which is favourable to the development of those terrible phenomena; and thousands more, by neglecting the primary symptoms and living irregularly, are

certainly passing to the second stage, from which their disease will reach its more advanced position, and introduce its victims to a new and more virulent set of symptoms, which, were prudential measures adopted, would never appear.

As a surgeon having large opportunities for many years in this city for extended and special observation, I am warranted in saying that syphilis in Victoria is a wide-spread evil, and that a large proportion of the ailments which reach the consulting-rooms of our physicians and surgeons owe some of their worst characteristics to their association with the venereal diathesis. Both sexes, and at all ages, from the infant at the breast to the old, carry with them the brand of the common enemy, and suffer more or less from its inroad upon their constitutions. So readily is the taint communicated, that an infant which has received it from its mother may, by contact with the breast of a wet-nurse, transmit the taint through her to other children, and so on *ad infinitum*. No idea can be formed by the uninstructed, of the wide-spread influence of syphilis on the health of the people. It often remains latent for years, giving no palpable warning of its existence; but suddenly, after a variable period, makes its appearance when least expected, and in a form more or less disagreeable and threatening.

It generally happens that a person may have contracted the taint, and yet be quite unaware of the insidious march of the disease, until it appears in some cutaneous eruption that may or may not rouse him to a consciousness of its existence. There can be little doubt but that the syphilides might be very materially lessened in frequency and force if more care were taken, and a more rational treatment generally adopted. It is, however, a blessing to humanity that the errors which have so long ruled the practice of physi-

cians in reference to this disease are giving way before the light of science and more extended observation.

CASE XV.—*Tubercular syphilis on the face, in all stages—in the initial stage, confluent, and corroding. Nose seriously involved. Dark, hard ulcers on the arms.*

E. M.—This patient called upon me in 1867, and stated that she had been for nearly two years under the treatment of one of the so-called specialists of the city, but had not obtained any permanent benefit; she was gradually getting worse, the disease making rapid strides towards the destruction of the tissue. In this patient the tuberculous syphilide appeared in several forms, and in nearly every stage. On the face could be seen almost every state of tuberculous development. In some places, small isolated tubercles could be felt, being just in the initial stage. Near them were others of a larger size, and more developed. Large patches of ulceration involved the whole of the nose and portions of the face. The ulcers had become confluent and run together, so as to form a large and unseemly patch. The wings and point of the nose were covered with a dense scab, which gave to the countenance a most forbidding aspect. The arms also were covered with large scabs, which were in the worst possible condition, being dark, hardened, and raised, surrounded by coppery discolorations of the skin. The genitals also exhibited extensive ulceration. Some of the ulcers were found to be corroding, and consuming the integument with great rapidity.

This was a very bad case of tertiary syphilis, the patient having not only contracted it more than once, but having been so drugged with mercury that the original disease was seriously and distinctly complicated by it. In

the course of three months the patient was much improved. There was then no ulceration of the integument and its appendages, and nothing remained save, in some parts, the distinct discoloration which this tubercular disorder leaves; and cicatrices, which in time might disappear if the proper eradicative treatment were continued.

In this case the alkaline bath, at 95 degrees, was ordered every third day; the sores were at first treated with hydrochlorate of ammonia, and perchloride of mercury lotion, giving place ultimately to an ointment made of hydrarg.-subchloride and oxide of zinc. Internally she took small doses of the biniode of mercury, which was followed by large doses of iodide of potassium, with bicarbonate of potash, and infusion of orange-peel, when the gums became a little spongy She was then ordered tincture of perchloride of iron, with chlorate of potash, and arseniate of soda, this being again succeeded by cod-liver oil and iodide of iron, and sea-bathing.

Case XVI.—*Syphilitic tuberculous ulceration of the forehead, back, throat, and mouth. Cured.*

Mr. R. P., from Hokitika, New Zealand, consulted me in last March, having the following symptoms:—Copper-coloured spots and ulcerations appeared on his forehead, the latter discharging a considerable quantity of characteristic pus, or matter. Over the situation of the kidneys, and on the back generally, similar ulcers were found in an advanced stage. His scalp was covered with favus, and nearly all his hair had disappeared. There was extensive ulceration of the throat and fauces; and on the inside of the cheek, opposite the last molars, there were ulcerations of the lining membrane, in addition to which the breath was very offensive.

He stated that four years ago, prior to his departure for New Zealand, he contracted syphilis by impure coïtus. The surgeon to whom he applied at that time healed up the chancres which appeared with black wash and caustic, but gave no internal remedies. The patient afterwards felt little or no inconvenience from the taint, until about a year ago, when the above-named symptoms set in, and continued to increase in virulence until the time of his arrival in Melbourne for medical aid. He complained of humming noises in the ears, but on examination with the auroscope, no lesion of that organ could be discovered. He is now (May) under treatment. The favus has all disappeared, and the hair is growing rapidly. The ulcers have healed, and the patient is rapidly recovering his standard health, having gained flesh considerably during the last fortnight. The treatment was confined chiefly to the iodide of mercury, with bark, internally, the system not tolerating mercury in any of its cruder forms. The head was dressed with an ointment composed of hypochloride of sulphur, ammonio-chloride of hydrargyrum, and cold cream. Vapour baths, iodide of iron, and arsenic, completed the cure.

CASE XVII.—*Tubercular syphilide or syphilitic lupus. Destructive ulceration of the nose. Body covered with coppery spots. Visceral syphilis. Death.*

Mr. D., well known in Victoria in 1858, was attended by Drs. Sconce and Thompson, for copper-coloured spots which covered nearly the whole body, especially the forehead, palms of the hands, and chest. Superficial ulcers of a tuberculous character occurred at the end of the nose and the corners; one large one destroyed the left wing completely. The treatment which he received from the gentlemen mentioned arrested the progress of the disease for the

time, and the patient was under the impression that the virus in his system had been entirely neutralised. In 1859 the disease returned with redoubled force, and attacked the other wing, presenting at the same time the condition of skin over the whole body which was noticed during the first attack. He called upon me, and put himself under my care. I succeeded in saving this wing of the nose, and in causing the spots to disappear. He then left for New Zealand. During the existence of the secondary symptoms just described he married a young wife and infected her. Eventually visceral syphilis set in, of which I heard that he died.

CASE XVIII.—*Tubercular Syphilide. Deep ulcers on the Hips and Thighs; Nodes on the Shin-bones and Scalp. Epileptic Fits. Cured.*

Mr. T. consulted me about two years ago, on account of deep syphilitic ulceration on various parts of his body. He said, when at San Francisco about twelve years since, he contracted chancres, for which he was promptly treated by a medical man in that city. He suffered from a smart attack of secondary symptoms, but he eventually thought he had succeeded in placing the enemy *hors de combat.* He enjoyed apparent good health, possessing an immunity from all symptoms of a syphilitic character, until about three years anterior to his visit to me, since which he had been under regular treatment by a respectable medical practitioner. When I first saw him he complained of pain in his head, and occasionally felt giddy; he had also suffered from fits of epilepsy; and on examining his skull, distinct nodules were found, which were tender to the touch. His skin was of an unhealthy hue, and on his buttocks and thighs there were several deeply-excavated

ulcers, secreting a thin ichorous discharge. His nervous system had suffered so much as almost to incapacitate him for business.

It was apparent that this gentleman was suffering from tubercular syphilide of a grave character, and unless the symptoms were controlled speedily, it might prove fatal. I therefore (after seeing that the thoracic and abdominal organs were in their normal functional activity) treated him specifically. Medicated baths were ordered, and a liberal diet insisted upon, and he was allowed a bottle of bitter ale every day. The ulcers were at first washed out with a lotion of carbolic acid and glycerine, and then dressed daily with an ointment composed of subchloride of mercury, oxide of zinc, acetate of lead, and cetaceum cerate. He was ordered a mixture containing chlorate of potassa, dilute hydrochloric acid, perchloride of mercury, with tincture of gentian root, and orange-peel.

He took this mixture for two months without causing the slightest tenderness in the gums, and with rapid amelioration of all the symptoms; and it was purely on the grounds of his complaining that he was getting tired of it, that I changed it to one containing iodide of potassium, perchloride of mercury, liquor of cinchona, and infusion of orange-peel. In four months from the time I commenced to treat him all external symptoms of the disease had disappeared. I then gave him Donovan's triple solution for a month, and finished up the treatment by giving him arseniate of soda, with iodide of sodium, and lastly, the iodide, and lactate of iron.

2. **SUBCUTANEOUS GUMMY TUMOURS** are classed among the tertiary phenomena of syphilitic disease, from the great distance of time which intervenes between their occurrence and the reception of the poison. They feel hard, like cancer, and have frequently been taken for that

formidable disease. Erasmus Wilson cites the case of a gentleman "who had given evidence of the presence of the syphilitic poison in his blood for upwards of twenty-five years. There are now developed, since the completion of this period, several round tumours (tubercula gummata) in and beneath the skin, which evidently originate in the same cause. The tumours are about the size of marbles, three or four in number, and hard and somewhat elastic to the touch. They are situated in the left forearm, two or three being to all appearance in the cellular tissue under the skin, and one in the skin itself. The latter is slightly red and tender, and looks as if it would fall into a state of ulceration."* When ulceration takes place, it is accomplished slowly and destructively, and unless checked by appropriate specific remedies, it may be followed by the most serious results. The iodide of potash, with muriate of ammonia and liquor cinchona, is our sheet-anchor in these cases, to be followed up by the preparations of iodine and iron, and the body to be wrapped in warm clothing.

SIXTH DIVISION.

Syphilitic Diseases of the Hair and Nails.

1. **ALOPECIA—LOSS OF HAIR.**—The absolute loss of hair goes, in medical nomenclature, under the name of Alopecia, and when as the result of the venereal taint, Syphilitic Alopecia. It always indicates that the constitution has been seriously affected, the nutritive processes being much lessened in functional activity. Very often the patient loses his hair, without being at all aware that it is owing to a syphilitic cachexia. There are many who seek medical aid

*On Diseases of the Skin.

for the premature, or rapid loss of hair, who manifest extreme surprise when told that the difficulty has had its real cause in some syphilitic taint, either hereditary, or personally acquired from impure coïtus; nevertheless, it is often evident to the well-informed surgeon that it has no other origin.

It is not an uncommon disease amongst children, and is too frequently referred to other causes—such as favus, or scald-head, and herpes of the scalp. Great uncertainty also hangs about its progress, as to whether the bulbs are finally destroyed; hence it is highly important that correct and effective treatment should be adopted at an early stage, before destruction of the hair-bulbs takes place. The loss of the natural covering of the head is to both sexes a very serious misfortune, but especially is it felt to be so with the fair sex.

It is not saying more than can be borne out by actual experience, that very many women lose their hair by reason of syphilitic taints, contracted by having sexual intercourse with husbands who have at some time had their systems poisoned by the venereal virus, thus being subject to the peculiar syphilitic fever which dries the scalp and checks the nutrition of the hair. It is always necessary to examine carefully into the antecedents of the patient, and to search for concurrent indications of syphilis, which will be found much oftener than is suspected in cases of alopecia.

The skin of the patient will be a sufficient index when any of the accustomed syphilides are present, or have existed. A constant tendency to sore throat I have frequently discovered to accompany this unhealthy condition of the scalp, and to lead from its nature to a decided conclusion as to the active principle that was destroying the hair. Had I space within the limit that I have set

myself, I could detail several cases from my own records where, in females, a chronic sore throat has accompanied the alopecia.

Alopecia, or falling out of the hair, may be observed in three different forms, each belonging to distinct epochs in the order of evolution of the syphilitic infection. These are:—(1) Defluvium Capilli, (2) Alopecia Proper, (3) Calvities. The first almost invariably commences early after contamination, frequently before any eruption has appeared, and may continue for a long time.

During the first year of what I have termed syphilæmia it is most likely to manifest itself. It is usually ushered in by symptoms of general derangement of the system: enlargement of the glands of the neck, an erythematous condition of the skin, with congestion of the throat, and headache.

Falling off of the hair may also vary in degree; in some cases the patient may comb it out in handfuls, giving him or her a most singular appearance, whilst in others it may be so slight that it may fail to attract attention until discovered by the surgeon.

In this form of the disease the hair-bulbs are not destroyed, and therefore the growth is readily reproduced. All that is requisite for the cure of this disease is specific treatment; should an eruption of a scaly character appear on the scalp, it may be washed with a lotion composed of the perchloride of mercury, hydrochlorate of ammonia, glycerine, and rose water.

The second variety of this disease usually takes place in the form of large patches on the scalp, where pustular and tubercular eruptions have been developed, and have thereby destroyed the bulbs of the hair; in this case a white bald patch is left, upon which the hair never grows again.

Calvities, the third in the order, implies a baldness of the whole body, consequent upon the disappearance of every hair from its surface. This form is now rarely seen.

CASE XIX.—*Loss of hair. Urethral chancre. Herpetic eruptions. Condylomata on genitals. Cured.*

Mr. ——, living in Melbourne, consulted me in reference to a return of syphilitic eruption occurring after an intermission of six years. He stated that it was about that time when—in Liverpool, England—he contracted the venereal taint, and had his sores healed up by what is commonly called black wash. He had a discharge, which must, from the description, have been a urethral chancre. This subsided. When leaving England the only indication of his being troubled with the syphilides was the existence of some spots on the chest, which remained during the voyage out.

On visiting me a short time ago he had syphilitic eruptions on the genitals, and a crop of condylomata or syphilitic warts on the foreskin. He also had buboes on each groin and under each armpit. The symptom over which he mourned most was the rapid loss of his hair, which had been gradually falling off for twelve months. This case is therefore illustrative of the tendency of syphilis to damage the hair-bulbs and cause baldness. Many persons owe their premature baldness to the syphilitic taint, who might have retained their hair during life had the injurious virus been removed from the system. This patient was completely cured after a brief course of anti-syphilitic medicines, consisting of iodide of potassium, mercury, arsenic, iron, quinine, the phosphates, Turkish baths, and a scalp wash containing cantharides, oil of amber, glycerine, almond oil, and rose-water. It is now some time since he discontinued taking medicine, and he is delighted at being in possession of excellent, in fact of robust, health.

CASE XX.—*Complete baldness from Syphilis. Impairment of vision. Syphilitic ulceration of the ear near the tympanum. Fibrous deposits on the fingers, producing contraction. Body covered with Herpes Syphilitica. Cured.*

In the year 1863 a man, aged 36 years, presented himself at the out-patients' department of the Melbourne Hospital, quite bald, but he had only been so six months. He was covered from head to foot with eruptions *(Herpes Syphilitica).* During or synchronous with the falling off of the hair, he had suffered great impairment of vision. He also had much pain in the left ear. On examining that organ with the auroscope, an ulcer was found near the tympanum, which was decidedly syphilitic. He complained of frequent twitches of the hands and feet, and on the shin-bones there were hard nodules or lumps, which were extremely tender on pressure. The whole of the joints of the fingers were enlarged, with fibrous deposits on the bend of the third and fourth fingers, which flexed them down firmly on the palms of the hands.

He experienced great pain during the alvine evacuations, which were commonly mixed with blood and slime. On examining the anus I found fissures or cracks of a syphilitic character. When making pressure on the sternum the tenderness was so great as to make him feel sick. The palms of his hands were covered with annular scales. This patient was placed under my treatment, and after a long and tedious course was discharged cured, and his hair restored. The treatment consisted in hot baths, containing the perchloride of mercury; calomel with hyoscyamus at bedtime; iodide of potash, and muriate of ammonia, with bark, internally during the day. These were followed by arsenic, iodine, and mercury, finishing with quinine and iron, to

brace up the system. The ulcer in the ear was cured at once, by citrine ointment and glycerine, and syringing with warm water.

The following is an example of alopecia, depending on syphilis:—"A gentleman contracted a venereal sore, the nature of which was doubted at the time by his medical attendant, and a week was allowed to transpire before he commenced taking mercury. He then took blue pill until his mouth was affected; the sore healed in three weeks. Three months after the sore his hair began to fall off in considerable patches, and a month later he had sore throat. On the occasion of his visit to me the hair was falling abundantly, it was parched and shrunken as if dead, and the scalp was dry and scurfy. Upon examination I found the stain of a syphilitic tubercle on the nape of his neck" (Erasmus Wilson).

This tendency to loss of hair and baldness, as the result of venereal contamination, is exceedingly common, and will be seen to be a generally prevailing symptom in the cases distributed throughout this work; hence it is unnecessary to give many special illustrations. I shall, therefore, conclude this division, and proceed to the next, believing that I have said sufficient to lead the reader to recognise the eruptions known as syphilides.

2. **ONYCHIA—DISEASE OF THE NAIL.**—This affection is in its results sometimes a very serious one, inasmuch as it tends generally to the destruction of the nails of the hands and those of the toes. The virus attacks the matrix and surrounding tissues, and so disorganises the structure as to entirely destroy it, leaving a distinct and festering ulcer. It commences by redness, swelling, and painfulness of the extremity of the finger, which extends so as to involve the

nail in the inflammation. Soon a purulent discharge is seen to exude round the nail, accompanied by a certain amount of serosity, or clear fluid; the skin commences to thicken and overlie an ulcerated surface, that continues discharging on pressure a sero-purulent fluid. The nails may not always be attacked by the tuberculous syphilide; there is an ulceration which is not so deep or malignant, being of a more superficial character, and which does not prevent the growth of a new nail. There is another form of Onychia, where the disease is limited to the nail, and does not extend beyond it. In this the nail is furrowed, thickened, and distorted, and often accompanies the scaly eruptions.

There are some attacks upon the nails by the syphilitic poison which are specially malignant, and proceed at a rapid rate towards their complete destruction. This kind is nevertheless rare, and happily so; but when it does appear it resembles a well-determined case of mortification, or death of the part. In this kind there is little or no ulceration seen, as in the other syphilides; but the end of the finger or toe presents a dry, shrivelled, and brownish appearance. A portion of the bone is also involved, and at length falls off, never to be renewed. (See Plate.)

All these several forms of Onychia are seen occasionally as examples of this special selection of the venereal poison. They have been several times met with in my practice. As a rule, not more than one nail or one toe is affected at the same time, though there are rare instances in which all may be involved; this last condition is, however, exceptional. As before stated, this is one of the most painful of the syphilide diseases, is tedious and perplexing, and in almost all cases destroys a part, if not the whole of the nail.

Mr. Hutchinson, a surgeon in high estimation on syphilitic diseases, and who contributes largely to the *Lancet* on this subject, is referred to in that journal as follows, pointing

out the malignant nature of this syphilide in its worst form.

"Two very instructive cases of the so-called 'onychia maligna' have recently been treated by Mr. Hutchinson at the Metropolitan Free Hospital. In the first of the cases referred to, a girl aged nine was sent, by the surgeon whom she had attended, to have her right thumb amputated on account of a most severe form of the affection. The history given of her case was suspicious, but by no means positive. The result of treatment, however, fully bore out the diagnosis, for although no benefit accrued during the first ten days of the mercurial treatment, and indeed the ulceration threatened to become phagedænic, yet no sooner was the constitution brought under the influence of the remedy than the most rapid healing resulted. . . .

"The second case was a much more valuable one as regards positive evidence concerning its pathology. A child three years old was brought to the hospital, presenting an onychia maligna of well-marked features, which had followed a slight trap of the thumb in the door. Her mother stated that she had been Mr. Hutchinson's patient in infancy, and on referring back to the notes it was found that when a few weeks old she had been treated for congenital syphilis. This recorded fact was the more valuable, because, excepting the onychia, there was nothing in the child's present appearance which would have suggested a suspicion of hereditary taint. It was evident that the injury received had merely been the means of exciting and localising a latent predisposition. Mercurials were prescribed, and the thumb soon got well.

"It follows as a consequence that if this pathology of the disease be the correct one, amputation is never necessary. It has long been acknowledged by many surgeons that onychia maligna in the adult is the occasional though very rare symptom of acquired constitutional syphilis. Mr. Hutchinson

holds confidently that this affection, when met with as it usually is in cachectic children, is in a vast majority of instances a manifestation of hereditary syphilitic taint, and curable by mercury."

In this quotation I am reminded especially of the many unnecessary amputations which I have met with where the disease has been undoubtedly an unrecognised syphilide. Persons with amputated fingers and thumbs have frequently consulted me for other ailments and for syphilides, in whom I have seen distinctly that the fingers had been syphilitic, and had been mistaken for gangrene and necrosis. It is to be hoped that those suffering from onychia will be less willing to yield to officious amputations, and that surgeons will determine well the nature of the disorder before using the scalpel.*

"The nails are attacked in three ways:—1. The matrix—while a scaly rash is present elsewhere—is beset with

* "ONYCHIA SYPHILITICA.—The matrix of the nails is not unfrequently affected by redness, swelling, suppuration, and often ulceration, under the influence of the inflammation of syphilis, and the case is one of syphilitic onychia. Sometimes one finger or toe alone is attacked, at other times several may be affected at the same moment. The skin immediately around the nail is considerably puffed and swollen, often the whole extremity of the finger or toe is enlarged; suppuration and superficial ulceration occur between the skin and the edge of the nail, fungous granulations are formed, which partly overlap the nail; the suppuration extends beneath it, and the nail is, in consequence, more or less loosened. This state of disease is excessively painful, but quickly gets well under the influence of general remedies.

"SYPHILITIC DEGENERATION OF THE NAILS is also met with occasionally as a consequence of the presence of the syphilitic poison in the blood. The nails are apt to be altered in structure, they are discoloured and brittle, thinner or thicker than natural, and rough and fibrous in texture. Sometimes they fall off, and are succeeded by others more faulty than themselves, and sometimes this morbid condition of the nails is accompanied with erythema of the matrix, or of the skin immediately bordering the edge of the nail."—*Erasmus Wilson on Diseases of the Skin*, p. 416.

papules, which destroy the nutrition of the nail, and, acting like a foreign body, cause obstinate ulcers. 2. The nutrition of the nail is altered; it becomes brittle, and its edge notched and ragged. 3. The superficial layers of the nail split and peel off, so that the nail becomes spotted and opaque at places where the nail is breaking away."*

"There is a form of onychia having its origin in constitutional syphilis. It usually attacks the toe nails, and is often associated with ulcerative fissures between the toes; in this form of the disease the ulceration is generally less extensive, the surrounding swelling is not so considerable, and the nail is less seriously implicated; while the history of the patient, or the concurrence of some other symptom of syphilis, furnish evidence of the nature of the disease. Syphilitic onychia may be treated locally by the black or yellow wash, it being, of course, of primary importance to adopt appropriate anti-syphilitic measures."†

* Berkeley Hill.

† *A System of Surgery*, by various authors, vol. 5, p. 477.

CHAPTER II.

Syphilitic Diseases of the Brain and Spinal Cord: Imbecility, Insanity, Epilepsy, Paralysis, etc.

This branch of the subject is one of especial interest, involving as it does the cerebral centres, and bringing into peril the source of all mental and physical integrity of function. So long as the brain remains undisturbed, the unfortunate sufferer from organic syphilis may be able to struggle with proportioned hope against the disease which has assailed him; he will be able to sustain himself under the affliction, and seek the best means at his disposal to aid him in the effort to remove it. But when the seat of power and intelligence is invaded, when the very citadel of life has been broken in upon, the struggle then becomes unequal, and the unfortunate victim sinks into drivelling idiotcy or an unconscious death.

It is well that other portions of the body are more frequently attacked than the substance of the brain and nervous centres—that the nerve tissue is generally one of the last to be reached. When this lesion has taken place, it is usually as the sequela of extensive invasion of the arterial system by the venereal poison, and indicates serious organic alteration somewhere in the organs of circulation. These concurrent lesions I have myself seen and recorded, and I was gratified to find that other explorers in the pathological field of syphilis had also noticed the same indications. Syphilitic gummatous tumours

in the brain have been described by Bonet, Ricord, Aitken, Cullerier, Wilks, Lallemand, Hughlings Jackson, and others.

Ricord describes them as syphilitic tubercle; Dr. Steenberg, an eminent physician of Schleswig, and who is in charge of the hospital for the insane, believes that the majority of syphilitic diseases of the brain are subsequent to lesion of the arteries; and Virchow has observed in the bodies of those who die from syphilis, with symptoms of brain disease, lesions of the large vessels. Softening of the brain, together with its appalling train of morbid manifestations in the whole nervous system, is also by no means rare in prolonged cases of constitutional syphilis, and is generally regarded as amongst its later phenomena.

Another eminent syphilographer,* who has contributed largely of late years to this branch of medical literature, states that the pathological conditions to be observed where the brain has long suffered from syphilitic invasion are:—"A quantity of tough, yellow, fibrous tissue unites the surface of the brain with the adjacent membrane, and this again is adherent to the bone. The cortical substance of the brain at the affected spot is often *partly destroyed*, and the adventitious material occupies its place. The question has still to be solved as to what structure is primarily affected. Many have given the authority of their names to the opinion that the disease first commences in the bone, but simply for the reason that the osseous system is that which has so long been recognised as liable to be affected. But since we now know that other structures may be similarly attacked, we are prepared to look for its commencement in other parts, and even in the brain structure itself."

* Dr. Wilks, in *Medical Times and Gazette*, Oct. 25, 1862.

Dr. Aitken describes a case which he saw in the Middlesex Hospital, of nodules in the great nervous centres. "There had been in the man's life a syphilitic history, and some of his children had died of inherited secondary syphilitic lesions. A gummatous tumour (syphilitic) occupied the left *optic thalamus*."*

These observations point out how profoundly the body suffers from this penetrating and corroding virus, and how necessary it is to be on guard against it in all its earlier and less destructive features. When the disease has so far advanced as to give expression to symptoms of cerebral disturbance, the phenomena are frequently obscure; but there are some which may be taken as indices, such as the disposition to make grimaces, to stare, and be extremely restless: in others there is the sardonic countenance, with its usual extravagances. Some are violent, and especially so at night; and there is unusual wakefulness, sleep being impossible without the aid of powerful narcotics.

Dr. Hughlings Jackson has contributed several cases of syphilitic lesion of the brain which terminated fatally; in one case a syphilitic mass was found in the right cerebral hemisphere;† in a second there was syphilitic disease in both cerebral hemispheres;‡ in a third the disease was found in the left;‖ and in a fourth in the right hemisphere of the brain.§ In the Royal London Ophthalmic Hospital Reports another case of syphilitic disease of both hemispheres is recorded by the same acute observer.

It is observable that, long before there is any decided lesion of the brain, that the usual prodromata, or premoni-

* *Science and Practice of Medicine*, vol. I., page 890.
† *Royal Lond. Ophth. Hosp. Reports*, vol. IV., part 4, p. 398.
‡ *Lond. Hosp. Rep.*, vol. IV., p 335.
‖ *British Medical Journal*, April, 1870.
§ *Lancet*, October, 1868.

tory indications, appear, in the character of depression of spirits, inaptitude for any mental or physical effort, severe head-ache of prolonged duration, with nocturnal exacerbations, loss of memory, lassitude, and perpetual fatigue, with disgust of life, and troublesome variability in temper. These phenomena I have frequently observed as existing during the secondary and tertiary stages of syphilis, and have been convinced that in some cases the reason of the alteration in the mental state was owing not only to a moral influence, but to actual irritation of the nervous centres and brain tissue, by the virus which was causing concurrent disorganisation and alteration of function in other parts of the body.

In syphilitic lesion of the brain "the *general nervous symptoms* are especially obvious in alteration of intelligence, of sensibility, and of motion. These, combined with such obvious local lesions as caries or necrosis of the facial bones, of the cranium, or tumours on the external surface of the cranium, such as gummata, periostitis, or exostitis, at once point to cerebral syphilitic lesions, which are sometimes expressed by persistent epilepsy. Any form of syphilitic infection may be followed by nervous affections, from a year old up to old age. Syphilitic brain disease generally leads to *softening* of the cerebral substance surrounding the nodule; and this softening cannot be distinguished from the softening induced by any other cause" (Aitken).

Dr. Gairdner, Professor of Medicine in the University of Glasgow, gives in his *Clinical Medicine* a case where the nervous system was considerably involved. "There was amaurosis, or loss of vision; the patient was paraplegic—*i.e.*, paralysed in the lower half of the body, thus showing both spinal and cerebral complication." In some of the cases given in this chapter, several similar disturbances of the cerebro-spinal axis will be noticed; and it would have been

possible for me, had I space, to introduce many more illustrations of the kind.

Divergie, and other French writers, lay great stress on the moral influence which the secondary and tertiary forms of syphilis exert over the patient, and represent it as of a peculiar and specific character. The reserve and stolid indifference, which so often accompanies this disease, may in some instances arise from moral causes, or from the patient's disgust at being thus afflicted; but I am fully convinced that there is something more than a psychological cause for the mental phenomena observed in many patients, and that it has to be sought for in the alteration of function, if not of substance, in the nervous centres. My own observations have led me to suspect that the brain is more frequently involved than most practitioners allow; and I have also seen that when the patient was put under specific treatment for syphilitic lesions in other organs, the cerebral phenomena have soon given way, although there could be no doubt of their serious nature.

More syphilographers than one have ventured to suggest that syphilis may be charged with providing inmates for our lunatic asylums, and although I have not any extended opportunities for such pathological investigations as would confirm my own opinion, I am still inclined to believe, from circumstances which have come under my observation, that the subject is worth serious attention, and that the opinion hazarded may be found to be true. The phenomena which have manifested themselves most frequently amongst my syphilitic patients have been precisely such as have been described by Winslow as premonitory of cerebral mischief. He says—"If a person previously in a state of bodily and mental health is conscious that abnormal changes are taking place in his mind; that trifles worry and irritate him; that he feels his brain unfit for work; that his spirits flag; that he tends to

magnify all the evils of life; if, moreover, he is observed to be fanciful; if he imagines things to exist which have no existence apart from himself; if he believes that kind friends ill-use him and slight him; if, besides, symptoms like these, or analogous to these, are associated with headache, derangement of the digestive organs, want of sleep—the friends of such a sufferer may rest assured, and the patient may perhaps be convinced, that the state of the brain is abnormal, and he may be induced to commit his case to the careful consideration of a physician."

In some patients whom I have had to treat for secondary and tertiary disorders—especially in the latter class—I have found almost precisely that catalogue of prodromata, and felt assured that if the progress of the tertiary lesions was not checked, the patient would sooner or later drift into temporary if not permanent insanity. In one patient, who committed suicide immediately after coming under my care, and who, when I first saw him, was evidently suffering from disordered mental functions, I had not the slightest doubt whatever that his act of self-destruction was the consequence of organic lesion as well as moral perversion.

This subject of insanity, on which I have thought proper to touch as one not sufficiently investigated, is replete with interest, and demands, as I doubt not it will soon obtain, exhaustive investigation. It is eminently important that syphilis as a cause of insanity, both in a moral and organic sense, should receive general attention, as there is, perhaps, no lesion more readily and surely remedied if early and judiciously treated. It has been a circumstance of some astonishment to me on several occasions to witness the rapid effect of specific treatment on the mind and the nervous centres.

I am here reminded that amongst the recoveries which have taken place in Hanwell and other English asylums,

many have followed the use of medicines which are specific against certain forms of syphilis, without its being suspected that the happy results arose from the perverted function having a venereal origin. This circumstance I shall consider more at large elsewhere, when in another volume I come to treat especially on the therapeutics of syphilis in connection with the brain and spinal cord. I have glanced at the subject here, that the profession generally may be directed to search in this new direction for the causes of mental aberration, which is so much on the increase amongst us.

It is competent for any one to search for the historical data necessary as elements of investigation in these serious cases; hence I deem it right to point out to those who may discover mental derangement approaching in their friends or acquaintances, to judiciously seek for evidence—if it can be obtained—that shall determine whether the syphilitic taint may be present as a cause, or complicating element. By doing this, the medical adviser will be materially relieved from the difficulties of diagnosis. Nor should there be any longer that diffidence about syphilis which has hitherto prevailed, as it is one of the most common diseases to which society is subject, and one to which the attention of the profession everywhere is especially directed. As it is both hereditary and of long duration, it should be dealt with without reserve or hesitation, that the taint may not be communicated to others, and especially not to the offspring. Its terribly destructive powers, and tendency to invade every organ and tissue in the body, the brain not excepted, should be a sufficiently powerful reason against allowing any feelings of prejudice or diffidence to stand in the way of full inquiry in reference to this fell disease.

"Much confusion has arisen from not distinguishing between nervous disorders arising from ordinary causes in

syphilitic persons, and those produced by the action of the virus itself. Syphilis may impede or destroy the function of a nerve in three ways—the first two of which are well recognised; the last is ill explained. They are—first, the nervous tissue is unaltered, but is pressed upon by growths of neighbouring parts; second, the nerve tissue itself is the seat of disease; third, a syphilitic patient may suffer from a nervous disorder, of which no traces remain in the nerves *post mortem*, but evidence of syphilitic disease is found in other tissues. In such cases the nervous symptoms are, doubtless, sometimes not attributable to syphilis; but it is not requisite in all cases for syphilis to produce appreciable change in the structure of the brain and nerves, when influencing their functions. Hildebrand thinks the nervous phenomena are due to the chlorotic condition of the blood in syphilis. Virchow, when referring to them, observes that as we do not know how far morbid processes in the brain may be arrested and cured, it would be rash to infer, when nothing is found, that nothing has ever gone wrong in the structure of the nerves or brain during life" (Berkeley Hill).*

* "Indeed, it may be fairly said that we may always discover structural changes in the nervous centres of syphilitic persons who have died with striking nervous symptoms, *if we only know how to look for them*. It appears from the observations of Virchow, Moxon, Heubner, and others, that too little attention has been given to the examination of the cerebral arteries. On the other hand, it would plainly be a mistake to ascribe *all* nervous sufferings of syphilitic patients to coarse structural lesions. Some symptoms, although apparently formidable, disappear so rapidly—with or without treatment—that they must be looked upon as owing to temporary vascular disturbance within the cranium—viz., sudden changes in the diameter of the blood vessels, and consequent variations in the amount of blood contained in them. Slight serous effusions, the absorption of which, under proper treatment, is easily effected, probably occur likewise. But where the symptoms are of slow growth, and an exceedingly gradual change in

The same writer confirms my opinion as to the early appearance of cerebral disorder, even during the outbreak of some of the numerous skin diseases which have been described, and gives us the following instance:—"A man aged twenty, soon after the outbreak of a papular eruption, was suddenly attacked by paraplegia; the sphincters were relaxed, and much pain was felt in the lower part of the back. In a few weeks, while he took iodide of mercury, the symptoms left the patient" (Zeissl). Again:—"A patient was inoculated in June or July; on the 8th October an eruption appeared on the body; on the 19th of October paralysis came on, which lasted till the 16th of November, by which time the patient was under the influence of mercury," &c.* The sudden onset of the palsy distinguishes these affections from the paralysis accompanying the late sequelæ,

the physical and mental constitution of the patient is brought about, the pathological lesion is most probably *external or internal pachymeningitis*, which is most frequently found in autopsies. We may fairly assume that the severe headache from which so many syphilitic patients suffer is referable to such inflammation. It is found that either purulent, or sanguineous, or caseous exudation-products accumulate between the tabula vitrea and the dura mater (external pachymeningitis); or that the dura mater, arachnoid, and pia mater, coalesce amongst each other and with the surface of the brain, forming thick, grey, fibrous callosities (internal pachymeningitis). Such formations necessarily cause pressure on both nerves and arteries in the neighbourhood of which they occur. If nerves are thus compressed, they lose their function, and may gradually become atrophied. The coats of arteries coursing between these exudation-products undergo degeneration—the width of the blood vessels is diminished, and at last complete occlusion occurs by thrombosis. Whether plugging of arteries also occurs spontaneously without previous meningitis, is at present not settled. Other pathological processes which may give rise to nervous disturbance are, *gummatous tumours of the cerebral substance*, and *osteo-periostitis of the bones of the skull, chiefly on their inner surface.*"—*On "Neuro-Syphilitic Affections," by Dr. Althaus, Medical Times and Gazette*, 25th Nov., 1871, p. 646.

* *Bulletin de Therapeutique.*

which are also preceded by other symptoms of nervous disorder.

The observation of Dr. Winslow, as given in the following extract, exhibits distinctly the need that there is for more care in the treatment of the insane, and the sad consequence to thousands of those unfortunates by the neglect of early treatment and correct diagnosis. He says—"The existence of so vast an amount of incurable insanity within the wards of our national and private asylums, is a fact pregnant with important truths. In the history of these unhappy persons —these lost and ruined minds—we read recorded the sad, melancholy, and lamentable results of either a total neglect of all efficient curative treatment at a period when it might have arrested the onward advance of the cerebral lesion, and maintained reason upon her seat; or of the use of unjustifiable and injudicious measures of treatment, under mistaken notions of the nature and pathology of the disease. . . . Experience leads us irresistibly to the conclusion that we have often in our power the means of curing insanity, even after it has been of some years' duration, if we obtain a thorough appreciation of the physical and mental aspects of the case, and perseveringly and continuously apply remedial measures for its removal."

In reference to syphilitic patients this passage is especially applicable, and the more the influence of the syphilitic virus upon the cerebral structures is made the subject of observation, the more will it be seen to occupy an important place amongst the causes which tend to the production of insanity. It has several times appeared to me highly probable that a patient suffering from tertiary or organic syphilis, would drift into the ranks of the insane, through lesion of some portion of the cerebro-spinal system. I have observed phenomena which indicated a prognosis of that character, but which have subsided at once under the specific treatment applicable

to the syphilitic diathesis. The premonitory symptoms to which I refer have closely foreshadowed the accession of hallucination, neuralgia, hypochondriasis, epilepsy, paralysis, and dementia. In one instance I found early in the treatment that vomiting set in, with disturbance of the motor nerves of the eyes, distinctly altering the co-ordination of the muscles controlling the visual function. At the same time there was a degree of despondency almost amounting to dementia. The patient recovered completely under anti-syphilitic treatment, hence there was no opportunity of verifying the diagnosis by pathological observation of the brain; still his speedy restoration was sufficiently conclusive, in my opinion, of its correctness, and of the progress that the virus was making in the cerebral tissues.

Here was an instance which would undoubtedly have eventuated in that mental condition which would have classed the unfortunate sufferer with the insane; and the lesion, not being arrested by specific treatment, would probably so disorganise the structure it invaded, as to destroy for ever the hope of return to its normal condition. The discovery of prominent evidences of syphilis in the body was the proximate means of saving this patient from the direst calamity that could befall humanity. Had he not received a specific treatment, nothing could have saved him from such a serious *denouement*. Hence the saying of Dr. Winslow, "that experience irresistibly leads to the conclusion that we have often in our power the *means of curing insanity*," is, in reference to syphilis, perfectly true. Within the range of my experience I have seen sufficient to force me to the conclusion that syphilis is by no means a rare source of cerebral disorganisation, and ultimate insanity.

In the *British and Foreign Medico-Chirurgical Review*, Dr. Chapu gives a number of cases of mental disease arising from syphilitic infection, and he urges that "*the defective*

nutrition of the brain, from the syphilitic diathesis, produces insanity." In the same journal Dr. Gjor has contributed thirty cases of paralysis which came on while manifest signs of syphilis were present. In the several chapters of this work it has been shown that the common tendency of syphilis is to induce an atrophic condition of the body, reducing the functional activity of the vegetative processes. As we know that defective nutrition is a prominent cause of mental aberration, exhibited in delirium, dementia, and epilepsy, there can be little doubt that many cases of cerebral disease may have a syphilitic origin.

I have been informed by one of the medical staff of the Melbourne Hospital, that among the deaths in that institution from syphilis, there have been several from disease of the brain substance itself; others from syphilis of the liver and kidneys, and lesions of the nervous system, inducing paralysis, &c.; and Dr. Maunsel, who made many of the post-mortem examinations, informed me that frequently syphilitic tubercles were found in the lungs. I subjoin one of the cases.

CASE XXI.—*Syphilitic disease of the brain. Osseous deposits pressing on the brain. Chancres of the brain. Ulcers on the tongue and throat. Death.*

This patient was admitted into the Melbourne Hospital suffering from pain in the head, loss of sleep, and exhibiting remarkable eccentricity of manner. It was noticed on his admission that he had marks of secondary syphilis on his body, together with ulceration of the tongue and throat, and syphilitic ulceration of the anus. It was therefore apparent that the whole of this man's symptoms were due to the presence of syphilis, and he was treated accordingly. After a time the patient manifested all the symptoms

of deep-seated disease in the brain substance; these ultimately culminated in complete incoherency, paralysis of the limbs, coma, and death. When the body was examined, and the skull-cap removed, osseous deposits were found pressing on the brain; at the posterior part of the right hemisphere, three small bodies like soft chancres were visible on its external aspect. On cutting through these it was found that they were underlaid by tuberculous deposits; and a little deeper still an abscess, the size of a pullet's egg, was discovered; syphilitic tubercles were also found in the lungs.

My friend and former colleague, Mr. Gillbee, informs me that about three years ago a man was admitted into the hospital suffering from constitutional syphilis, with brain lesion. He was tremulous, could not articulate distinctly, and was partially paralysed. Soon afterwards, epileptic fits supervened, followed by complete paralysis; lastly, he sank into a comatose state and died. When the body was examined after death, a large mass of syphilitic disease was found in the substance of the brain.

The following cases occurred in my own practice.

CASE XXII.—*Syphilitic Disease of the Brain and Liver. Hemiphlegia and Death.*

H. I., aged 30 years, consulted me in 1870. He said "he had just arrived from Queensland, and was very ill indeed." He stated that he was born of healthy parents, and enjoyed good health until eight years ago, when he unfortunately contracted a chancre in the United States, which was followed by buboes and secondary symptoms. As he was very poor at the time he was compelled to seek the advice of a chemist in Boston, who did his best, but failed to cure him. In this condition he sailed for Australia.

On the voyage he suffered from ulceration of the throat and soft palate, accompanied with great exhaustion. After landing, swelling of the shin-bones with perforation of the soft palate, loss of hair, together with a fœtid discharge from the nose, supervened; and although he had been able to attend to a certain amount of business, he had been more or less constantly under medical treatment.

When he entered my consulting-room he appeared thoroughly broken down, bodily and mentally.

He was evidently much emaciated, and his complexion was decidedly unhealthy and sallow; he seemed much embarrassed in answering questions, and repeatedly shed tears; his articulation was thick and indistinct, and he spoke slowly. He said he was suffering from intense pain in the right side of the head, from which he had no respite; he also in walking suffered so much from giddiness as to be compelled to seize some object. He complained of great drowsiness. He vomited occasionally, and when standing erect with his eyelids closed he falls forward. He appeared intelligent, but says his memory fails him.

On examination with the ophthalmoscope, well-marked double optic neuritis was found to be present. The discs were of a bluish-grey colour, the veins were irregular and dilated, and the arterial vessels were small. On the sixth day after I first saw him I was sent for to see him, as his friends thought he was worse. I visited him shortly afterwards, and found him paralysed on the left side of the body; the mouth was drawn to the right side, and the tongue, when protruded, inclined a little to the left; his pulse was 80, feeble, and he was almost speechless, though retaining consciousness. These symptoms continued for a few days, the pupil of the right eye becoming much dilated; finally complete insensibility supervened, and he gradually expired.

On examining the head after death, a large mass of syphilitic gummata was found in the right hemisphere of the brain, with considerable softening of the cerebral substance by which it was surrounded. On cutting into the liver, several masses of syphilitic deposition were also found.

In commenting upon this unfortunate case, I may mention that the diagnosis was comparatively easy. The previous history, together with the physical and rational signs, pointed most unequivocally to it as a case of intracranial disease of a syphilitic character. The ophthalmoscopic examination of the discs and blood-vessels of the eyes disclosed a very interesting addition to the pathological phenomena of "coarse disease" within the cranium, which has of late been so ably demonstrated by Dr. Hughlings Jackson, of London.* Owing to the sudden aggravation of all the symptoms, this man's case gave me no opportunity of testing the effects of anti-syphilitic treatment, although, from the *post-mortem* appearances, I fear little good could be done.

While preparing this work, I find the following interesting case reported in the *Lancet* of 20th April, 1872, which alike demonstrates the frequency of syphilitic brain disease. I shall, therefore, quote it *in extenso*.

CASE XXIII.—*Syphilitic Disease of the Brain. Death.*

Jane J——, a woman of dissolute habits, aged 33, was admitted into the Highgate Infirmary on 8th February, 1871, with the following history:—Health good prior to her marriage, which took place thirteen years ago, and six months after she contracted syphilis from her husband.

* *Medical Times and Gazette*, September, 1871.

No treatment was employed, although it is quite evident from her statement that she must have gone through the primary and secondary stages of this disease. In ten months from the commencement of her married life she gave birth to a child, which grew up healthy, and, strange to say, quite free from syphilitic taint. In twelve months time another child was born, which lived only seven months, dying completely emaciated from syphilisation. These were the only children to whom she ever gave birth; there was no miscarriage. Until four years ago her health does not appear to have been seriously impaired by the syphilitic poison; but at this time she took to habits of intemperance, and during a fit of intoxication lay upon the ground all night, exposed to the cold air. When she became conscious, she was seized quite suddenly with intense pain over the left side of the head and face, accompanied with ptosis of the left eyelid and convergent squint of the same eye. Her condition at this time was that of general malaise, with severe nocturnal pains in the bones. She then placed herself under the care of a medical man, from whose treatment her health improved greatly; the ptosis of left lid, but not the squint, entirely passed off. After this ptosis of the right eyelid succeeded, and this, like the former, soon yielded to treatment, but was followed by paralysis of the muscles of the right half of the tongue.

Upon her admission, the following signs and symptoms presented themselves:—Great emaciation of body, staggering gait and faltering progressive power of locomotion; double convergent squint, ptosis of left eyelid, the vision of the right eye being perfect, of the left diploptic; both pupils were equally dilated, and scarcely if at all influenced by direct light. There was pain of a dull, intensely-aching character, always worse at night, extending over the entire scalp, left side of face, and upon the exterior surfaces of

nearly all the long bones. There were nodular prominences of the cranial bones and both tibiæ; and extending down the course of the latter bones were to be found gummatous elevations. The pharynx and posterior fauces were deeply cicatrised, coincident with psoriasis of the tongue and soles of the feet. The left half of the scalp, face, tongue, and buccal mucous membrane, were almost completely anæsthetic. There was increased salivation, and to some extent the risus sardonicus was marked. The tongue, when protruded, was completely curved to the opposite of the side, which was paralysed. The senses of smell, taste, and hearing were each impaired upon the left side. There was neither motor nor sensory paralysis of either extremity. The speech was thick, but not aphasic. The vessels of the left retina were tortuous, and the general surface dull and congested. Her memory and reason were both a little affected until after the first epileptiform seizure, which occurred on 18th November, 1871.

At this time the fit was protracted and severe, and was succeeded by others at varying intervals up to the time of her death. For days together she would be subject to aberration of reason, mental confusion, and a state of stupor, accompanied with single prolonged tonic spasms affecting the flexor muscles, until the whole body became perfectly rigid, with the forearm flexed upon the arm and the thighs upon the abdomen. Between these convulsive seizures her mind would suddenly be roused to increased though aberrant activity, and she would hold converse with some unseen person, the subject of a deluded imagination. These conditions were markedly characteristic when compared with her customary lethargic power of thought, memory, or perception. Her death took place on 6th February.

Autopsy made twenty-four hours after death showed the

following lesions in relation to the brain and its membranes. The dura mater was partially adherent to the internal table of the skull, and to nearly the whole extent of its right half there was more or less thickening. At one part, extending over an area of nearly a square inch, it was thickened to quite a quarter of an inch, firmly adherent to the parietal bone, and presenting a yellow, cartilaginous appearance. Attached to the inner surface of this diseased portion of membrane, and growing from it, projecting into the substance of the middle right cerebral hemisphere, was a growth about the size of a pullet's egg, its diameter being about two inches, and its depth one inch; it was surrounded by softened brain-tissue. The consistence of the tumour was tolerably firm. The portion next the dura mater was of a greenish-yellow colour, and firmer than the rest; two or three narrow bands of a similar appearance projected into the mass of the growth. The outer part of the tumour towards the brain and the part intervening between the bands just mentioned was rather less firm, of grey semi-translucent look, more vascular than the other part, and resembling very much the grey matter of the brain.

The following microscopical examination was made by Dr. Gowers. The growth consists everywhere of small cells and a fibrous stroma. The cells were, for the most part, from $\frac{1}{1500}$ to $\frac{1}{2500}$ of an inch in diameter, more or less round in form, each having a small round nucleus from the $\frac{1}{3000}$ to the $\frac{1}{4000}$ of an inch in diameter, lying near the centre of the cell. In the outer parts the cells were rather longer, but rarely exceeding the $\frac{1}{1000}$ of an inch in diameter. In the firmer part of the growth the fibrous stroma was well marked, the fibres running more or less parallel with one another. In the cortical part, in which the cells were longer, there was very little fibrous tissue between them, but here and there among the fibres small

fusiform cells were to be seen, but these were not numerous. A careful examination of the roots of the cranial nerves, at their attachment to the brain, did not reveal any morbid change.*

The following occurred in my own practice.

CASE XXIV.—*Syphilitic disease of the brain. Death.*

A sailor, aged 29, was taken with "fits," in which he remained for some time. On recovering consciousness he vomited, complained of headache, and his pupils were dilated. When I saw him I found paralysis of the left side of the face, and on touching the cornea the eyelid remained open, and the eye could not pass the median plane of the orbit on its outward aspect. There were nodes behind the ear, on the shin-bones, and on the clavicle; the left testicle was hard, enlarged, and heavy. Ophthalmoscopic examination disclosed a choked disc, or optic neuritis; slight strabismus was also present. The right hand was tremulous. He had had chancres nine years previously. My diagnosis was intracranial syphilitic disease, and my prognosis of the case was most unfavourable. He was at once placed under specific treatment. In seven days after I first saw him, marked paralysis of the sixth, and of the portio dura of the seventh nerve, were observed; the right hand was powerless, though continuously agitated; finally, vomiting with constipation supervened, and he was seized with epileptiform convulsions, of which he died.

When the body was examined after death, a syphilitic mass was found in the floor of the fourth ventricle, involving the common nucleous of the sixth, and portio dura of the seventh nerves.

* Case treated in Highgate Infirmary by Stretch Dowse, M.D.

The *post-mortem* appearance in this case fully explained the cause of the whole of the phenomena observed during the life of the individual, and it is much to be regretted that premonitory symptoms are not seen and treated earlier, before disorganisation of the very centre of life ensues, and through which life is forfeited. Whenever the gummata are found upon any part of the body, it is a sign of serious import, and steps should at once be taken to effectually eradicate them, before any inroad is made upon the organs contained in the three great cavities of the body, namely, the head, chest, and abdomen.

"Dr. Moxon related a case of intracranial disease cured by iodide of potassium. The subject was a young man aged 21, who was admitted into Guy's Hospital, under Dr. Moxon's care, having been ill six months. The illness came on with severe headache; in about three months ptosis and ocular paralysis of the left side commenced, and, as it went on, the left fifth nerve also became involved, and the right hand grew partially numb. When admitted he had agonising pain in the head. The left eye was intensely red, and its cornea ulcerated; it was almost immovable, and the lid was dropped. He could not feel moderate touches on the left face, nor taste salt on the left tongue, nor use the left masticating muscles. He had two slight seizures of a doubtful kind on the first two days after admission. Iodide of potassium was given in three-grain doses thrice daily, and the dose increased to a scruple. He gradually got better of all his symptoms. The pain left him very soon, the other symptoms more gradually. He was in attendance at the Society's rooms, and the state of his left face and eye was practically normal again. The points to which attention was directed were chiefly these:—That this is the third case of syphilitic disease about the

sella turcica Dr. Moxon had met with. This he connected with the growth of the sphenoidal sinuses there, bringing in illustration the occurrence of exostoses very frequently about the frontal sinuses, and of exostoses on the long bones, at the region of the epiphysial cartilage; all these facts going to prove that the seats of late development are unusually liable to disease. Dr. Moxon believed that it was incumbent on every one who had a case of local intracranial disease under his care, to treat it at once with iodide of potassium, without waiting to make out its nature. He had not seen any serious ill effects from the iodide, when taken to the extent of a drachm in the day for long periods. Slight salivation, a red rash, and catarrh, were not common, though they occasionally occur; but they are by no means to be compared with local intracranial disease as alternatives. As to absorption of the testes, he had never seen it. The iodism of old authors probably referred to the poisoning of the blood by the absorption into it of broken-down matter of goitres, during their cure.

"Dr. Anstie read the further and concluding history of a case of which the earlier notes were read last session. It was an example of neuralgia of all three branches of the fifth nerve, immediately excited by constitutional syphilitic infection, and which was of recent date. The case was one of a remarkable character. The nerve had been *predisposed* to neuralgic pain; many years before the syphilitic infection it had been the seat of an ordinary typical *migraine* of great severity; and at present it was very noteworthy that the painful and tender points were distributed, not according to the type of tertiary syphilis, but according to that of ordinary neuralgia. Moreover, a number of secondary lesions (unilateral facial anæsthesia, unilateral loss of taste in the tongue, unilateral spasm of muscles, &c.) were distributed exactly as such secondary affections were in severe

neuralgias where there was no question of syphilis. Besides these curious phenomena, there were a series of paralyses of the ocular muscles, quite of the ordinary syphilitic type. Thirty grains of iodide of potassium daily completely cured the neuralgia; the anæsthesia, the loss of smell and taste, and the muscular spasms, in little more than a fortnight. The ocular paralysis proved exceedingly obstinate; but the prolonged use of iodide in larger daily doses (45 and then 60 grains) at last completely removed it. It was a singular fact that, during the full progress of the muscles towards recovery, unmistakable symptoms of iritis made their appearance; they were checked by a short course of mercury. Such a case as this was sure to be marked, in the future, by the repeated recurrence of tertiary syphilitic nerve-lesions."*

IMBECILITY.—This condition is one to which I have alluded before, when speaking of insanity as a consequence of syphilitic invasion of the brain; but I refer to it again especially in order to introduce a case or two quoted by Mr. Berkeley Hill, which are telling illustrations of this phenomenon. It is shown to exist in connection with a *general wasting paralysis*, where "the memory, senses of taste, sight, hearing, and the control of the muscles, all suffer; gummy tumours were found in the meninges of the brain, with atrophy and softening of the grey substance over a large portion of the brain's surface." One case is that given by Westphal, as follows:—"A man having had syphilis was for some time subject to fits, to persistent headache, and other symptoms. After suffering thus for some time, his memory grew weak; his uttering became hesitating, for want of the right word to express his meaning; his gait tottering, and

* Clinical Society of London, Friday, 24th November, 1871.

he lost control of the sphincters. This case terminated in utter imbecility and death. *Post-mortem* examination showed that the skull was thickened internally by exostoses; the dura mater was beset with nodules growing from it into the silvian fissure; the pons varolii was softened and congested; and the right second and third nerves were infiltrated with gummy nodules (syphilitic)." The following is also another very distinct instance:—

"A man, aged 55, previously under Ricord's care for constitutional syphilis, after a fatiguing journey in September, 1845, was seized with cerebral excitement. This was soon followed by general paralysis. The muscles of the face were relaxed; utterance was inarticulate, and deglutition difficult; saliva dribbled from the mouth; the lower limbs tottered, and the upper ones shook. By bleeding and purging his condition was much improved, though his utterance still remained slow and drawling. In February, 1846, he had a second attack, with full pulse, coma, and stertor. By mercurial inunction and iodide of potash he was sufficiently restored to be able to follow his occupation of a painter for some months. In 1847 he was again seized with paralysis, diarrhœa, and exhaustion. This time specifics were not borne, and he died. At the *post-mortem* examination there were found thickening of the pia mater and arachnoid, general softening of the grey substance, and calcification of the anterior two-thirds of the falx cerebri; but careful examination discovered no further lesion of the brain."

When the tumour is in the substance of the brain and not on its surface, the headache is constant, but varies in intensity; shortly after the headache becomes settled, giddiness, or confusion of the memory, and loss of ideas, are added; next to these come drowsiness, that passes now and then into coma. Convulsions and maniacal excitement, which often

accompany these symptoms, denote *peripheral* disease of the brain, in addition to the internal tumour.

Dr. J. Russell Reynolds, Professor of the Principles and Practice of Medicine in University College, London, states, in his compendious *System of Medicine*, that "a diffuse albumino-fibroid exudation of low form, gluing the membranes to the surface of the brain, has been declared by some to be *characteristic of syphilitic insanity*. Instead of being diffused, the *gum*-like exudation, or *syphiloma*, as it has been called, may be circumscribed so as to form a tumour, and press into the substance of the brain, causing softening immediately around it; or again, it may be met with as a diffuse infiltration or a tumour within the brain, the membranes being unaffected.

"The proportion of syphilitic to idiopathic affections of the nervous system which have for the last five years been treated at this Infirmary, under the care of Dr. Althaus, has shown a singular constancy, as it has in each twelvemonth been very nearly 5 per cent. of the total number of cases which have come under observation. On further analysing the nature of these affections, another curious fact was elicited—viz., that the number of cases of syphilitic paralysis and palsy from non-specific disease, bore a constant relation, as out of 100 cases of paralytic affections of all kinds, in 20 a syphilitic origin could be clearly traced. Without attaching undue importance to these numbers, comprising as they do but a limited area of observation, Dr. Althaus thinks it well to put them on record, *as showing a much more frequent occurrence of neuro-syphilis, than is believed in by many practitioners*. On the other hand, syphilitic epilepsy appeared to be rare, unless all cases of neuro-syphilis in which convulsive attacks occurred were put down as epilepsy, which would obviously be wrong. Amongst paralytic affections, palsies of some of the cerebral

nerves ranked first in frequency; then followed hemiplegia and paraplegia. Local palsies of spinal plexuses or nerves were of rare occurrence; but a more or less considerable impairment of the memory and intellect were present, in no less than 60 per cent. of the cases treated at the institution.

"The diagnosis of neuro-syphilis is not always easy, and *requires an intimate knowledge of the peculiar clinical features, and phases of the distemper.* In many cases, of course, the connection between cause and effect is so evident, that the patient himself makes a correct diagnosis before the physician has time to do so. There has been a hard chancre, an indolent bubo, early affections of the skin and throat, and perhaps a painful node on the shin-bone; then the patient, who lives in constant dread of something more, and worse to follow, finds some morning on awakening that one of his eyelids droops, or that he has sensations of pins and needles in the feet, and has lost the power of walking to a more or less considerable extent. This he at once attributes to the same dread cause which has given rise to all his previous sufferings, and the diagnosis is therefore 'cut and dried' for the doctor. But this is by no means the rule. Although it seems absurd, yet there are patients to be found who *strongly deny having caught infection from an impure source,* and ascribe all their ailments to overwork, anxiety, mental shock, &c.—circumstances which probably act occasionally as exciting causes, *but are not at the real bottom of the malady.* We must, therefore, when the symptoms are suspicious, never be satisfied with the denial of a primary syphilitic affection by the patient, but take such denial for what it is worth. Sometimes, in the further course of the treatment, a tardy confession is obtained. Again, in other cases, the primary affection has been so light that it escaped notice at the time, or has been really forgotten; or an unsuspecting husband is infected by a

faithless wife, or an illicit lover by his indiscriminating mistress, the vehicle of contagion being sometimes poisoned leucorrhœal mucus, primary affections being and having been absent. *In all such cases we have to trust entirely to the clinical features of the case as a guide to our diagnosis.*

"What, then, are the peculiar features of neuropathy from venereal disease, in contradistinction of idiopathic nerve-disease? They are—

"1st. *The great variety of symptoms* which are observed in neuro-syphilis, while in other non-specific nerve-disease the range of symptoms is more limited. In this particular, neuro-syphilis resembles hysteria, for we find all kinds of paralysis, spasm, hyperæsthesia, and anæsthesia, occurring together, or succeeding each other rapidly. *If this is observed in men, or in unimpressionable women, it affords considerable suspicion of syphilis.*

"2nd. *The irregular or intermittent course* of neuro-syphilitic affections distinguishes them from their idiopathic namesakes. Thus, for instance, a non-syphilitic patient affected with aphasia only improves slowly, or not at all, under the best treatment; a syphilitic patient may have aphasia for half-an-hour, a day, or three days, and then completely recover his language. Cases of this kind of intermittent aphasia have been described by Dr. Hughlings-Jackson as epileptic aphasia; *but Dr. Althaus has never seen them excepting in syphilitic subjects, and does not think them in any way connected with the true epileptic condition.* Intermittent amblyopia and amaurosis also occur in neuro-syphilis, but we cannot claim these as epileptic affections, any more than attacks of neuralgia or ague.

"3rd. *Mental symptoms,* which in a large number of idiopathic nerve-diseases are absent, are very frequent in neuro-syphilis. The memory is more apt to suffer than the intellect, but the latter is also often impaired.

"4th. *The general appearance* of neuro-syphilitic patients is mostly sallow and miserable, while patients with idiopathic neuropathy often look the very picture of health. In fact a frequent complaint of the latter is, that their friends and relations do not believe in their complaints because they look so well. The peculiar fusty smell of syphilitic patients, which was mentioned as characteristic by Dr. Gull, at a recent meeting of the Clinical Society, has several times been most strikingly present in Dr. Althaus' patients.

"5th. *The results of treatment* are in the majority of cases quicker, and apparently more satisfactory, in neuro-syphilis than in non-specific nerve-disease; but relapses are more frequent in the former than in the latter." *

The authorities whom I have quoted render the question of cerebral lesion due to syphilis a recognised fact in the domain of organic diseases. For a long time this portion of the system was not suspected to be liable to invasion from the venereal virus, and when the liability was first asserted it was received with considerable incredulity; it is, however, now placed beyond the region of conjecture by the results of extended observations made by the ablest pathologists of Europe. It is to establish this fact, and direct attention more decidedly to the large class of nervous diseases influenced, if not directly produced, by syphilitic deposit, that I have so fully recorded the opinions and teachings of our modern syphilographers.

CASE XXV.—*Ulcerated throat. Copper-coloured eruption on the skin. Paralysis. Dementia. Partial loss of sight. Speech affected. Cured.*

A photographer from New South Wales, aged 35 years, who had always enjoyed good health until four years ago,

* *Medical Times and Gazette*, November, 1871.

when he contracted chancres in Melbourne. These were treated by caustic, and black wash application, under which they soon healed. He took very little medicine. Soon after the disappearance of the sores his throat became inflamed, and a red rash, which ultimately became copper-coloured, developed itself on the skin. He placed himself under medical treatment, which eventuated in what he thought "a complete cure." Everything appeared to go on well with him, and he was able to attend to the duties of his calling until eighteen months ago, when he again suffered from sore throat, with pains in the head and shin-bones; he could not enjoy his food, and he lost flesh. His skin also, he noticed, was very sallow. These symptoms were followed by giddiness when walking, and he was compelled to relinquish his business. He was attended by a medical man in Sydney, who ordered leeches, blisters, purgatives, shower baths, but all without any amelioration of the symptoms. Soon after he assumed a tottering gait, and his eyesight failed him. A seton was inserted at the back of the neck, and his friends were informed that his case was hopeless. When he entered my consulting room I thought he was under the influence of liquor, the phenomena of alcoholic inebriation being well marked; he walked with a staggering gait, his speech was unintelligible, and his clothes were bespattered with mud. I, however, soon discerned that I had before me an unfortunate fellow-being suffering from disease of the cerebro-spinal system. He had fallen down on his way to my house. When he smiled it was of a peculiar idiotic character, and the face was drawn to the right side; his tongue was tremulous, and when protruded it turned in the same direction; the left leg and arm were partially paralysed, the pupils were dilated, and his saliva drivelled from the mouth. I asked him to spell his name, but he failed to do so, and asked me in an indistinct manner to

spell it for him.* He had nodes on the skull and shin-bones, his hair has fallen out considerably, and his lips, tongue, tonsils, and back of the pharynx, were deeply ulcerated, and he had syphilitic lepra on the chest and back. I diagnosed it at once as a case of syphilis, implicating the nerve centres, and I withdrew the seton. He was ordered hydrochlorate of ammonia, perchloride of mercury, and carbonate of ammonia, with decoction of bark, three times daily; the mouth and throat was swabbed with the acid nitrate of mercury, and he was to use a gargle of chlorate of potassa and hydrochloric acid, with honey of roses. A tepid bath was ordered every day. A diet, consisting of milk, beef gravy, chicken broth, fresh eggs, boiled fish, jellies, tripe, and oysters, with claret for luncheon and dinner, and to wear warm clothing. From this time he improved rapidly; but his mouth becoming tender, I changed his mixture for one containing the perchloride of iron, and chlorate of potash, with quassia; under this treatment his mouth and throat healed, his skin lost the eruption, his sight improved, he could walk without staggering, could articulate distinctly, and could write (which he had not done for many months previously). As the nodes had not disappeared, I gave him the red iodide of mercury for two months, which he bore remarkably well, and increased in flesh the whole time. I then prescribed the triple solution for six months, and lastly the iodide of iron, with arseniate of soda, and cod-liver oil. He made an excellent recovery, and is photographing as well as ever.

I may mention that he furnished the history of his case after he was convalescent, as his imbecile state pre-

* Cerebral speechlessness is often permanent, being the consequence of apoplexy or the pressure of some syphilitic deposit.—*Tanner's Practice of Medicine*, vol. 1, p. 379.

vented him from doing so when he first came under my treatment.

EPILEPSY.—This distressing affliction, which is so intractable, and resists so effectually the many remedies that medical science has suggested, is to be ranked, after much exhaustive research and observation, as one of the most alarming phenomena directly resulting from syphilitic contamination. When this direful catastrophe befalls a sufferer from syphilis, the virus has reached the centres of life, and is exhausting the fountain whence spring the entire concourse of vital phenomena. Language can scarcely portray the miseries that surround the unfortunate victim of this grave infliction. It has, however, been graphically delineated by several writers, amongst whom is Dr. Watson, the celebrated author of a *Practice of Physic,* which commands the esteem of the entire profession. He writes that "it is scarcely less terrible to witness, when it occurs in its severer forms, than tetanus or hydrophobia; but it is not attended with the same urgent and immediate peril to life. Yet it is, upon the whole, productive of even more distress and misery, and is liable to terminate in even worse than death: a disease not painful probably in itself, seldom immediately fatal, often recovered from altogether, yet apt in many cases to end in fatuity or insanity, and carrying perpetual anxiety and dismay into those families which it has once visited" (Lect. XXXV.).

The phenomena of this nervous disorder are known to most people, and will not be forgotten by those who have once witnessed them. There is complete loss of consciousness, with convulsions, sometimes long continued, at other times clonic or alternating. The respiratory process is also impeded, so that the sufferer appears to be gasping for breath. The attack lasts from two to twenty minutes, and generally

ends in sleep. Sometimes it occurs without much severity, and is indicated by a tottering step and a fixed gaze. It often occurs without any previous warning, and Georget estimates that in 95 cases out of 100 there are no premonitory symptoms (Aitken). The warnings are known by the name of "auræ," and comprise all the multitudinous and singular phenomena that sometimes precede the fits. Many patients on the approach of a fit have vertigo or headache; some, swelling of the veins, or throbbings of the arteries of the head; while others again have ocular spectra, or affections of the other senses. In most cases the fit is preceded by a headache.

In the adult, whether the warning symptoms be present or not, the attack usually commences by the patient uttering a cry, losing on the instant all consciousness, and falling down in convulsions, his mouth being covered with foam. The attacks are sometimes of the most trifling character, being scarcely recognised. At other times there are the most frightful, terrific, and long-continued struggles. In severe forms of epilepsy, the convulsions are sometimes very formidable. The hair stands on end, the forehead is wrinkled, the brow is knit. If the eyelid be opened, the eye is seen to be injected, sometimes convulsively agitated; at other times in a state of strabismus (squinting), and sometimes fixed. More commonly the eyelid is quivering and half-open, so as to show the lower portion of the conjunctivæ. The face is red, or livid and swollen, the teeth generally clenched, and the lips covered with foam.

Sometimes, however, the mouth is open, and the tongue thrust forward; and should the masseter muscles now act spasmodically, it may be bitten through, or otherwise much injured, and the foam consequently mixed with blood. The force with which the jaw closes is so great that teeth have been known to be broken, and the jaw luxated. The limbs

also are violently convulsed, thrown about in every direction, and with such power that it often requires three or four persons to prevent the patient seriously hurting himself. In these convulsions also the hands are strongly clenched, and the body is often arched backwards, when, on the muscles relaxing, the patient may fall to the ground with great force. While the limbs and trunk are thus powerfully agitated, the muscles of the chest are often spasmodically fixed, so as to hardly permit the act of respiration (Aitken).

The functions of organic life are also implicated in this scene of tumult. The pulse is generally frequent, and at other times scarcely perceptible, although the heart's beats are strong and tumultuous. The respiration is stertorous, the stomach and bowels troubled with borborygmi, the skin bathed in sweat, while the urine, semen, or fæces are occasionally emitted. Blood sometimes flows from the eyes, ears, or nose, frightfully expressive of the violence of the attack.

In the child this fit is very common, and is induced by a variety of causes. Frequently it is hereditary, and when not so it is induced by dental irritation. There is, however, generally some hereditary taint which induces susceptibility in the child to disturbance of the nervous centres, and none so frequent as the syphilitic taint, and this in the present chapter I shall be able to establish. The symptoms as they appear in the child are—the clenched fingers and bent toes, the thumbs flexed on the palms of the hands; the eye staring, fixed and convulsed; the face and extremities pale and livid; the body rigid; and the head and trunk curved backwards. The fits vary very much in frequency, sometimes occurring three or four times a day, in other cases only appearing once or twice in the year. They also vary considerably in their severity.

It is but little known to how great an extent all these painful and alarming phenomena owe their existence to the presence of that syphilitic dyscrasia of which I am especially treating. The virus, having disturbed the integrity of the cerebral structures, gives rise to those nervous perturbations which are so graphically described above as occurring in a paroxysm of epilepsy. Attention has of late been drawn to this phase of syphilitic contamination, and amongst the observers are Drs. Brown-Séquard, and Ramskill, of the National Hospital for the Epileptic and Paralysed, who have recorded cases of this nerve lesion that have been associated with constitutional syphilis. The following are cases which they have furnished.

"CASE XXVI.—*Epileptiform convulsions, chiefly affecting one side. History of syphilis. Syphilitic lepra. Great improvement under the use of the iodides.*

"Richard P., aged 44, a painter, was admitted into the hospital, under the care of Dr. Ramskill, on 23rd April, 1861, for paralysis of the right side, and epilepsy of two years' standing. His mother was paralysed, but the rest of his family, so far as he knew, had not suffered from any disease of the nervous system. He had led an unsteady life, and five years ago had syphilis. Up to the night of his attack he was quite well, but before going to bed he fell down on his right side. He became insensible, and remained unconscious half-an-hour. After the fit he considered himself well again. Since then he has had a fit once a month. He was always convulsed more on the right side than on the left. Scattered over his body were large patches of lepra, unmistakeably syphilitic in character. Specific treatment was adopted, and when he was dismissed cured he had not had a fit for two months."

The following case was under the celebrated Dr. Brown-Séquard, at the same hospital.

"CASE XXVII.—*Epilepsy, and failure of mental powers. Amaurosis. Optic nerve entrance white and anæmic. Syphilitic history.*

"This patient, when 18 years of age, had a chancre, for which he was salivated. He said that he had not had any secondary symptoms for ten years; he might have had another chancre. The secondary symptom was sore throat. He subsequently had a node on the shin, for which he was severely salivated. About ten years ago he had a constant watery discharge from the nose, and for the last year he had a discharge from the nostrils of a different character, consisting of crusts of mucus, &c. The loss of smell was due to disease of the mucous membrane of the nose. This patient was first attacked by epilepsy in June, 1860, and suffered much from mental depression, and loss of mental power. These last symptoms began about three or four years ago, and continued more or less up to the time of his admission in March, 1861. The first epileptic seizure occurred suddenly while he was writing at his desk, when he became insensible, was convulsed, and bit his tongue. In June of the same year his sight began to fail, and in a fortnight he was unable to see for any useful purpose. The operation of dividing the ciliary muscle produced no improvement. In September he was ill for about a month, with symptoms, according to his wife's description, somewhat like those of delirium tremens. He had delusions, was extremely restless, and for several weeks did not recognise his nearest friends. He had at that time a great deal of pain at the top of his head, but neither fits nor paralysis. He complained during the whole time of a very offensive smell

in his nose. The whole of these symptoms, with many others, Dr. Brown-Séquard had no doubt were due to syphilis."

In the tenth volume of the *Transactions of the Pathological Society*, Dr. Bristowe relates the following case, which well illustrates this syphilitic nerve-lesion and its phenomena. Dr. Bristowe remarks in reference to this case:—"The kind of deposit supposed to result from the syphilitic poison was recognised both in the *liver* and *brain*, and was associated with what were doubtless venereal buboes in both groins."

"Case XXVIII.—*Epileptoid attacks. Paralysis in the left side. Impaired vision. Fatuity. Death.*

"G. H., aged 34.—Some years since he was seized whilst at work with a fit, from which he speedily recovered. Eighteen months before admission to St. Thomas' Hospital he had a second fit, which lasted two hours. He was then insensible, but did not bite his tongue; when conscious, there was no impairment of speech. He became subject to attacks of vertigo and headache. Eleven days before admission he had a third fit, which was followed by paralysis of the left side, with indistinctness of speech. He was somewhat fatuous, and this condition increased. His sight became impaired, that of the left eye especially, and he ultimately died comatose.

"*Autopsy.*—The dura mater was found thickened and roughened over the left cerebral hemisphere; the bone also in this position was rough, congested, and slightly softer than natural. The surface of the brain was firmly adherent to this part over a surface of eight square inches by fibroid tissue, in which and in the adjoining brain-substance were two or three fibrinous masses (syphilitic). In the liver were found similar deposits. In the left corpus striatum

was found a cyst (apoplectic), and the right (explanatory of the paralysis) was congested and much softened. The left internal carotid artery and its branches were plugged."

Dr. Bristowe believed that this case was syphilitic.

Dr. Wilks, in his work on *Pathological Anatomy*, writes:—"As regards *nerves*, it has been clearly made out in many cases that tumours or neuromata have been due to syphilis. The arteries, too, in all probability are susceptible of the same influence; that is, a deposit, atheromatous, or of an analogous kind, forms within the coats, leading to various consequences; and thus, in some cases of aneurism and softening of the brain from diseased vessels, *syphilis has been the probable cause*."

The same gentleman also reports the following case, which was under his care at Guy's Hospital.

"CASE XXIX.—*Syphilitic epilepsy. Extreme cachexia. Cured.*

"Robert C., aged 36.—He was a carpenter, but formerly had been a soldier in India; was invalided, owing to rheumatism or pain in the limbs. Two months before admission he had a fit while walking in the street, and on recovery he felt his left arm and leg numb and weak. He has had about a dozen fits since, and in some he has not lost his consciousness, but he foamed at the mouth and bit his tongue. Two days before admission he had a fit, followed by a great loss of power of the left arm and leg. On admission he was exceedingly ill, complained of great headache, and had partial paralysis of the left side, the arm being almost powerless, but the leg he could move a little. He soon after had three fits, in which he was convulsed all over, and screamed out. . . In the intervals he complained of pain in the right side of

the head and neck. He was totally paralysed on the left side. His wife was sent for, as it appeared scarcely possible that he could survive long.

"As the patient had never been in a condition to give a good history of his case, the wife was questioned, and she said that he had a fall two or three years before, also that he had long suffered from pains in the limbs, and that *she had had several miscarriages and dead-born children.* The patient was again examined, and it was found that one clavicle was enlarged. All these circumstances suggested syphilis, therefore specific treatment was adopted. He began to improve in a most remarkable manner: only one or two more fits occurred, the paralysed limbs got stronger, and consciousness returned. At the expiration of three weeks he was able to leave his bed and walk about. At the termination of a month after the commencement of the medicine, he left the hospital quite convalescent. This case afforded the most remarkable recovery we have ever witnessed from a disease of this severe nature." *

This case is a very remarkable one, and is in an eminent degree consoling to the physician who may find himself called upon to treat the unfortunate victims of cerebral lesion. Here was undoubtedly extensive syphilitic deposit in this man's brain, in the corpora striata and other vital centres. The apparently complete overthrow of the man's reasoning powers, and the prostration of his physical capabilities, demonstrate how deeply the syphilitic taint must have penetrated and infected the cerebro-spinal system. The case shows to what an extent the disease may have produced some structural intercranial change, and yet yield promptly and fully to specific anti-syphilitic treatment. There is now no doubt whatever that a great many nervous disorders owe

* Guy's Hospital Reports.

their existence to lesion of some portion of the encephalon, and that we may suspect, as we often find, the formation of the same kind of gummata and fibrinous deposits in the brain itself, which are so frequently seen and known to exist in other parts of the organism.* Neuromata, or morbid enlargements of nerves by reason of syphilitic deposit, are evidently frequent causes of depraved function, and of interference with the organs of special sense. The cranial and

*"As a matter of fact, we find the mind failing until imbecility results, and our naked eye discovers often *structural change in the surface of the brain*. The epilepsy accompanying the general paralysis of the insane is confirmatory of the view I have taken. It so happens, also, that if epilepsy, or a disease approaching to it in character, does present any positive *post-mortem* appearances, they are always of one kind—an adhesion of a patch of dura mater to the surface of the brain, arising *from injury to the skull, or syphilis, or other disease*. I say in cases which may be called true epilepsy, judging not only from the symptoms, but from the general history and duration of the complaint, very little definite change is discovered in the brain; but if the case be of shorter duration and fatal, indicative of the disease, then invariably *there is found a change of the surface*. Why a condition which is permanent should excite occasional disturbances of the organ, does not constitute a difficulty peculiar to epilepsy; but there is no more difficulty in supposing that the whole cineritious surface of the brain should be occasionally excited from a local cause in the organ itself, than it should be from some altogether unknown cause at a distance. Moreover, there are certain peculiarities about these fatal cases which, at the same time as they may be considered by some to militate against the idea of their being representatives of true epilepsy, yet, on the other hand, tend to corroborate the idea that the first disturbing causes of epilepsy originate in the cineritious structure—for instance, as before said, it so happens that in some of those epileptiform cases where consciousness was not altogether absent, a local disease was found, showing that irritation of one spot was sufficient to produce the fit. Then again it is well known that *one side* of the body is often more affected than the other in epilepsy, more convulsed during the paroxysm, and remaining after its subsidence. *Now, this has been more often observed in the cases where a local change has been found on the surface of the brain.*"—*Dr. Wilks's Lecture in "Medical Times and Gazette,"* 16th Jan., 1869, p. 59.

cerebral lesions are of the same character, but the resulting phenomena differ materially, the latter being by far the most dangerous and varied. Paralysis, loss of vision and of memory, incoherency, and fatuity, are then some of the results to be dreaded.* My own experience has convinced

* In October, 1871, Dr. Keyes contributed a very interesting paper on "Syphilis of the Nervous System;" and as the result of his extended observation and experience, he has deduced the following propositions:—"1. That nervous symptoms depending on syphilis may arise within the first few weeks *after an infecting chancre*, or at any period later *during the life of the individual*. 2. It is presumable, from the study of published autopsies, that the earlier a nervous symptom occurs, the less likely is there to be any material lesion which an autopsy can reveal; and that, in a given case, there exists no constancy of relation between the nature, the situation, and the severity of the lesion, and the nature, situation, and severity of the nervous symptom to which that lesion may give rise. 3. That cerebral congestion is probably the pathology of many of the earlier nervous syphilitic symptoms. 4. That syphilitic hemiplegia occurs, as a rule, without the loss of consciousness, even when the attack is sudden; but that the paralysis usually comes on gradually, the patient being under 40 years of age, and having had fixed, constant headache for some time before the attack. 5. Mydriasis existing alone, or with other nervous symptoms, without positive disease of the eye, *is presumptive evidence of syphilis*. 6. Paralyses of a single muscle or sets of muscles are frequently syphilitic. 7. Syphilitic paraplegia generally comes on *gradually*, often without any local symptom to call the patient's attention to the injured portion of the cord, and is rarely complete. The bladder almost always suffers more or less, and calls for special local treatment. Paraplegia may be developed as a symptom of inherited syphilis. 8. Syphilitic epilepsy usually occurs after the age of 30, in patients who *have not had epilepsy in early life*. Headache is liable to precede the attack. The convulsions occur often, many in quick succession, the intermission between the series of attacks being comparatively long; but during this period headache and the nervous symptoms exist and become aggravated, *contrary to what obtains in idiopathic epilepsy*. Syphilitic epilepsy is liable to be associated with, or followed by, some form of paralysis. 9. Aphasia is often associated with the intellectual disturbances caused by syphilis. 10. *Loss of memory is a common nervous symptom of syphilis*,

me that these lesions are the frequent sources of many of the most intractable and otherwise occult diseases of the cerebro-spinal system that come within the scope of the physician's operations.

As an illustration of this statement, I give two or three cases from my record, which will go to show how serious the consequences may be where syphilis is allowed to proceed under the mask of other nomenclature, and thus to pervert the diagnosis. The first is that of a young man who never had fits until tainted by impure coïtus, and in whose family no trace of the epileptoid dyscrasia could be found. The following cases occurred in my own practice.

CASE XXX.—*Acquired syphilis. Epilepsy, and failure of mental power. Impaired vision. Loss of memory. Cutaneous syphilide. Cured.*

G. R. Y., aged 27.—I was sent for to see this young man in the month of October, 1868, and found him exhibiting the following symptoms, and the subject of the accompany-

as also all forms of mental disturbance, from mild hallucinations and illusions to *actual insanity*, and all these without any necessarily accompanying paralysis. 11. Inordinate emotional expressions are often associated with the mental weakness *caused by syphilis*. 12. Care must be taken to distinguish certain symptoms caused by gout from the same symptoms owing their origin to syphilis. 13. The prognosis is better, as a rule, for nervous symptoms caused by syphilis, than for the same symptoms depending on a lesion, equal in extent, caused by another malady of the nervous centres. But, after the arrest of the disease, an indelible impression is often left upon the nerve tissue, which manifests itself by impaired function, and which treatment cannot overcome. 14. The iodide of potassium, pushed rapidly to toleration, unless the symptoms subside before that point is reached, is the main outline of treatment. Mercury, used at the same time, or alternated with it, *is often of great value in protracted or inveterate cases.*"—*New York Medical Journal Association*, November, 1871.

ing history:—He was originally robust and healthy, until about five years prior to my seeing him, when he suffered from Hunterian chancre, induced by impure coïtus. This was healed by the ordinary remedies, and in two years afterwards he was treated for a syphilide, which, according to his description of it, I judged to have been vesiculo-tuberculous. There were cicatrices on his back, thighs, genitals, and face. On his coming under my care I learned that soon after the disappearance of the syphilide he had a fit, which was pronounced epileptic, and this was followed by others, until they occurred once or twice a week. He gradually lost the power of mental concentration, and his memory so failed him that he was compelled to abandon his situation. During the fits he was unconscious, bit his tongue, foamed at the mouth, and was convulsed. He had nodes on the tibia and forehead, and he complained of great pain in his head, especially on the vertex and behind, and the exacerbations were so severe at night that he seldom was able to sleep. He was suffering from impaired vision, and on examining his eyes by means of the ophthalmoscope, I observed that the vitreous humour was clouded, with whitish films floating about in it. The vessels of the retinæ were congested, and the optic entrance was almost occluded. There was also choroiditis, but not of a very severe character. This disorder of the eyes had been in existence for about twelve months, not to the same extent as now, but gradually increasing from a slight amaurosis. He had at the time of my visit a sore throat, to which he was especially subject. The ulceration was syphilitic. I judged that his epilepsy arose from cerebral lesion as the result of constitutional syphilis, and treated him specifically in accordance with that opinion. His recovery commenced immediately; the frequency of the fits diminished; his sight gradually returned; his memory recovered; and in five

months he was able to take a situation. He is now well, and has had no return of the fits.

CASE XXXI.—*Epilepsy with amaurosis. Paralysis of the optic nerve. Syphilitic cachexia. Cured.*

Mrs. S., aged 32.—This patient came under my treatment in July, 1864, under the following circumstances:—She had been married eight years, and a year after her marriage her husband infected her with syphilis. She shortly after had ulceration of the genitals, sore throat, and growths about the verge of the anus. Some year and a half afterwards she had palmar syphilis, with vesicular eruptions on the thighs and back. She had cicatrices on her forehead, from what must have been a tubercular form of syphilide. Soon after the outbreak of the eruption her eyes began to fail, and on consulting her medical attendant she was told that she had amaurosis. This symptom continued to increase, so that when I saw her the sight was almost gone. On examining her eyes with the ophthalmoscope, the appearances at the base of the eye indicated paralysis of the optic nerve, and there was partial occlusion of the optic entrance. The vitreous humour was clouded, and there were old adhesions of a former iritis. About the time of the disappearance of the syphilide she was suddenly seized with epileptiform convulsions, and lost consciousness. Her memory began to fail, and her mental faculties to be impaired. The fits were gradually becoming more frequent, occurring at this date as often as twice a week. She was much emaciated, with a dirty yellowish hue of the skin, that indicated a deep constitutional taint. Her skin was dry, and her bowels confined. She had borne three children, all of whom died in their first year. I scarcely expected to restore this patient, but was nevertheless determined to test the efficacy of a specific anti-

syphilitic treatment on her, as I believed that her epileptic fits arose out of some cerebral lesion. Nothing could be more surprising than the rapid change which took place. The recovery was gradual and gratifying, and I had the satisfaction of seeing her cured in about five months. Her husband also was treated successfully for tertiaries.

CASE XXXII.—*Epileptic fits. Tertiary constitutional syphilis. Paralysis of the right side. Recovery.*

H. S., aged 28, came to my house, into which he was assisted by a friend, in December, 1866. He complained of a feeling of numbness, and partial loss of the power of motion in the right side, together with enlargement of the left testicle. Two years ago he contracted syphilis, followed by secondary symptoms, for which he was treated by internal medicines and the mercurial vapour-bath. By these means his skin became cleared, and he thought he was rid of the enemy. Soon after, however, he began to feel pains in the head, joints, and shin-bones. He had ulceration of the tongue, loss of hair (S. Alopecia), also enlargement and induration of the testicle. Latterly he had suffered from giddiness, loss of the sense of smell, and impairment of sight, followed by partial paralysis of the right side of the body, the arm being most affected. When seen by me, I noticed during my interrogation of him that his speech was thick, and he answered slowly. There was a partial loss of voluntary motion on the right side, and he could not see distinctly with his left eye. There was considerable sensibility of the skin. These symptoms, together with the condition of the tongue, testicles, and shin-bones, all clearly demonstrated the existence of severe constitutional syphilis; whilst the paralysis, loss of sight, and sense of smell, led to the supposition that the brain and nervous system were also

invaded by the syphilitic poison, and I at once determined on attacking it by anti-syphilitic remedies.

The next day I was hastily summoned to his bedside, as he was in a fit. On my arrival I found him unconscious, his face pale, and his mouth twisted. He was foaming at the mouth, and he had bitten his tongue. In a few minutes he became sensible. I then cupped him at the back of the neck, applied ice to his head, and purged him briskly. In a few days he was much better, and he resumed the anti-syphilitic course. In three months all his former symptoms had disappeared. I, however, kept him under my supervision three months longer, and after that dismissed him cured.

With regard to the prognosis of this class of diseases: although the symptoms are sufficiently alarming, and to the unskilled observer seem too serious for human ability to overcome, still there is ground for much hopefulness on the part of the physician or surgeon when called upon to treat. Thanks to the advance made in the knowledge of the disease, and to the rapid strides made of late in the science of therapeutics, we are able to bring the most effective specific treatment to bear upon such cases, and we need seldom despair of cure. Dr. Russell Reynolds thus expresses himself on this point:—"In syphilitic diseases of the brain and its meninges there is much room for hope, and it seems to be of little moment that the symptoms are varied and severe. Those which are least amenable to treatment are the losses of sight and hearing, which not unfrequently exist. Paralysis and spasmodic affections are often removed with considerable rapidity. The length of time during which the symptoms have lasted is a further guide in the prognosis, the hope of restoration being in inverse proportion to the duration of the morbid state. Still, unless the general condition be one of highly-marked cachexia,

amendment may be confidently expected. The presence of disease in the kidneys may be of unfavourable omen, but even it often disappears under an anti-syphilitic treatment. There are no cases which *appear so bad, and which recover so well*, as some examples of intercranial syphilis. Until the diagnosis of the constitutional state is established, the case may appear absolutely hopeless; sometimes the only missing link in the history may be unattainable, because the patient is insensible, or in such a state of mental incapacity that no reliance can be placed on his assertions; but yet from such conditions he may completely recover.

"*Meningitis* occurs also in individuals suffering from tertiary syphilis, for just in the same way as nodes and gummy tumours form under the periosteum in different parts accessible to view, similar deposits are found in the dura mater. In some cases the membrane is not inflamed in the vicinity of these growths, but in others the dura mater is thickened and adherent to the brain, which also participates in its superficial layer in the chronic inflammation.

"The symptoms indicating the presence of such deposits are intense and constant cephalalgia, with nocturnal exacerbations; in some cases with convulsions, obtuseness of the intellectual faculties, and sometimes paralysis. The previous history of the patient, the peculiar sallowness of the complexion, and the presence in many cases of periosteal nodes, either in the head itself, or on the bones of the leg, sufficiently attest the nature of the case." *

The syphilitic virus is now known to affect the nervous element injuriously, and of late an extreme form of dementia has been ascribed to a syphilitic exudation, circumscribed, or diffused on the surface, or within the substance of the brain.

* Dr. Reynolds' *System of Medicine*.

PARALYSIS.—This is another disorder, which in some instances is induced by the presence of the syphilitic alterations in the tissues of the encephalon, and is that form which is commonly known as the paralytic stroke. As will be seen in the cases cited as illustrations of epileptoid disorder, there was generally what in medical nomenclature is called hemiplegia—*i.e.*, paralysis affecting one lateral half of the body, and which may occur to either half, while the parts which are actually involved are the upper and lower extremities, the muscles of mastication, and the muscles of the tongue on one side. Palsy of the face often occurs, and is seen as a lesion of the fifth nerve; there is hanging of the cheek downwards, and the angle of the mouth on the paralysed side is lower than the other. I have, however, found in syphilitic paralysis the facial nerve, or *portio dura*, affected, producing alteration in the operation of the muscles round the eye, as well as other superficial muscles of the face. This facial palsy is often very peculiar and painful in its phenomenal expression. There is the motionless brow, the eye red and staring, and the mouth drawn and hanging.

There are several forms of paralysis of common occurrence, due—1. To disease of the brain or spinal cord, in which form the muscles must be rigid or relaxed, the disease of the brain being the result of apoplexy ; softening ; renal disease; induration, *the result of syphilitic poison;* the epileptic, or choreic state. 2. To pressure upon or injury to a nerve, by syphilitic neuromata. 3. To hysteria. 4. To the influence of poisons, such as lead, arsenic, mercury, &c." (Aitken).

As will have been noticed in some of the cases cited, the serious phenomena of palsy arose from a syphilitic tumour pressing upon that part of the brain called the "*corpora striata,*" which is one of the important centres of volition. Paralysis will not occur unless pressure on this part takes place, or on some of the neighbouring fibres with which it is

connected. Syphilitic deposits have been found occupying this situation, where *post-mortem* examinations have followed death from constitutional syphilis, especially in those cases where paralysis was a prominent feature. It is true, also, that other seats of volition and sources of functional operation are seriously influenced by the venereal poison. All pathologists now agree that these morbid syphilitic growths tend by pressure to destroy the fibres of deep-seated parts in the encephalon, and especially in the cerebellum and neighbouring localities, and thus cause paralysis. I shall give a few cases from the records of other observers, as well as from my own, which will portray the effects of the lesions referred to. They are instances of paralysis consequent on some local disease produced by syphilis. The following is a case which was under the care of Dr. H. Jackson, of the Metropolitan Free Hospital, London.

CASE XXXIII.—*Partial paralysis of arm. Syphilitic iritis.*

"Jeremiah S., aged 35, was admitted on 9th July, 1861, for partial paralysis of the right arm. He could move it, but in the effort to grasp he could do little more than close his hand. In this limb he had also pain, which he said ran down into his fingers. He also said that he had some pain in the head, with tenderness on pressure, but more in the neck, from which point he described the pain in the arm as originating. In both eyes were the remains of iritis, the pupils being irregular, and the sight impaired. The iritis—both eyes being affected at the same time—followed an attack of syphilis three or four years before. He had had syphilis several times. For six months after the syphilis he had rheumatism, which by his description appears to have been ordinary acute rheumatism. Dr. Jackson placed him under specific treatment, and one week after he was remark-

ably improved. In a fortnight he was quite well, the paralysis and other symptoms having disappeared."

The next case is reported by Drs. Hutchinson and Jackson, of the same hospital, as having been under the care of Dr. Brown-Séquard.

CASE XXXIV.—*Paralysis of the seventh and fifth nerves. Recovery under the use of anti-syphilitic remedies.*

"Launcelot R., aged 43: for paralysis of sensation and motion in the left side of the face, which had come on recently. He had brain fever when ten years old, after which he squinted, the eye being turned in. He was operated on at the age of 19. Ten years ago he had rheumatic fever, and then lost the sight of the left eye. About that time he also had syphilis; but there is no history of any subsequent recognised symptoms, except those about to be related. When admitted he had partial paralysis of the *portio dura* on the left side, the mouth being drawn to the opposite side, and the eye of the affected side open, from paralysis of the orbicularis muscle. Being unable to keep the dust out of the eye from want of muscular action, he had it covered up by a piece of rag. The whole of the left side of the face, and the whole tract supplied by the sensitive branches of the fifth nerve, were quite numb. He said that in these parts he had no feeling at all. Dr. Brown-Séquard considered the case as one of syphilis, and prescribed accordingly. The rapidity with which the man's symptoms abated confirmed, *so far as recovery under anti-syphilitic remedies can do,* the diagnosis of the case."

There is another remarkable case recorded by Dr. John W. Ogle, in the *Transactions of the Medico-Chirurgical*

Society, in which *the whole body was paralysed.* Drs. Jackson and Hutchinson say that there can be little doubt but that *syphilis was the cause of the paralysis.* Dr. Ogle, in reference to his case, writes :—" The adventitious material (syphilitic) attached to, and in many cases surrounding firmly, and as it were incorporated with, the roots of the nerves, was manifestly the remains of some exudative process, which at some time or another had, during life, affected the spinal membranes. Whatever may have been the precise nature of this process—whether, that is to say, it was of a purely local nature, and of a kind usually designated inflammation of the spinal membranes (the masses of the deposits about the nerves being, in fact, only part of some exudation —the rest, chiefly fluid, having been absorbed); or whether it was of a more unlimited nature, an expression or manifestation of some general cachectic state, such as will induce, as we know, fibrous effusions simultaneously into various organs, and upon various free surfaces—it was equally interesting and important to find that the chief results of the exudative process (syphilitic) *had been aggregated around the roots of the nerves.*"

In connection with the syphilitic history of the following case there were remains of iritis and keratitis. There was also malformation of the teeth. The history of this patient's mother's pregnancies—eleven children, and six deaths soon after birth—is also suspicious.

CASE XXXV.—*Paralysis of the four limbs. Notched teeth, and remains of kerato-iritis.*

"W. A., aged 18, a shop-boy, was admitted into St. Thomas's Hospital, under the care of Dr. Barker, on 3rd Oct., 1860. He was an intelligent, sharp-looking boy. His history was that one month ago he first found numbness in

the tips of the fingers; this gradually went up the arms; about the same time he had numbness in the toes of both feet; this extended up the legs, and he could not feel with his hands nor his feet. For a week or ten days before the numbness he had severe headache, 'which kept him awake at night.' He had been deaf some years. Both pupils were irregular. His teeth presented in a very characteristic form the appearances produced by hereditary syphilitic taint. He could not stand, sit up, or move the arms and fingers. No sensation in the arms and fingers, nor in the forearms. Sensation was slight in the lower extremities. The intercostal muscles would not act. He had no power over the bowels or bladder. After a short course of anti-syphilitic treatment he was discharged much improved, being able to use his arms, hands, and fingers."

The following case is one, which is very interesting as a crucial test of specific treatment over what must have been a serious lesion of the cerebral structure, and especially those of general volition.

CASE XXXVI.—*Paralysis of the whole body. Constitutional syphilis. Syphilis of the vitreous humour. Mental failure. Cured.*

L. P., a man of 32 years of age, sent for me, when I found him exhibiting the following symptoms:—He was paralysed in all his limbs, but not so much as absolutely to prevent his moving from one room to another. His arms, hands, and fingers were useless. The face was drawn, and had an expression of feebleness. His memory, and mental powers generally, were much impaired. His utterance was muffled and indistinct; his tongue suffered from the general disturbance of the nervous centres. His history was as follows:—

Ten years previously he had suffered from chancre, given to him by an infected woman. Some time after this, four years as he thought, he had an eruption, which from his description must have been a vesicular syphilide. It appeared on all parts of the body, from the scalp to the feet. During its existence he had ulcerated throat and mouth, with growths on the anus. The eruption did not leave him completely for upwards of two years, remaining at the back of his knees and thighs. About this time his memory failed him, and his power of mental application also. Gradually his sight became defective, and he was very much troubled with *muscæ volitantes*, or black spots and films floating before his eyes, so much so as sometimes to prevent his reading. During the last three years he has had frequent attacks of weakness, with the sensation of "pins and needles" in his arms and legs. About a year ago he felt himself threatened with twitchings and paralysis, which gradually increased, until he reached the serious condition in which I found him. I felt no doubt about syphilis being the cause of the symptoms described, and at once administered anti-syphilitic medicines, which restored the patient to health in about five months, when I dismissed him cured.

The following is contributed by an eminent practitioner at Newcastle-upon-Tyne.

Case XXXVII.—*Syphilitic Ptosis and Paraplegia.*

"Within the last few years lesions of the nervous system, depending upon syphilitic poisoning, have been especially dwelt upon by many writers. The effects generally belong to the class of what are termed 'tertiary affections;' and the length of time which elapses between the primary disease and resulting nervous disorder is frequently so great

as to cast a shadow of doubt upon their origin. The present case is especially valuable as occurring very shortly after the absorption of the syphilitic poison, and during the time whilst other effects of it were manifest in the system.

"Mr. F—— came under my care during the month of September, 1871. He was suffering from complete paralysis of the third nerve on the right side. This was attended with slight headache and feeling of sickness. He had no gouty or rheumatic diathesis, and had not been exposed to cold; but six months previously he had had chancre upon the penis, which had been followed by sore throat and a copper-coloured papular rash, traces of which still remain about the face and shoulders. He was directed to take a Plummer's pill at night, and large doses of iodide of potassium were administered, a blister being applied behind the ear. In three weeks the ptosis had disappeared; and for a time he seemed quite well, and resumed his ordinary occupation. A month later he again applied to me. On this occasion he complained of pains in the back and lower limbs, a difficulty in making water, and a feeling in his legs which he described 'as though his feet were made of lead.' These symptoms gradually increased; and in the course of a few days he could scarcely raise either limbs above an inch from the ground, the urine constantly dribbling from him. Sensation in the lower extremities was not completely abolished, but so perverted that he could never tell with certainty what part was being touched. I now placed him again under the influence of the iodide of potash, painting the whole length of the spine night and morning (until it became sore) with a strong solution of iodine; and with these remedies I combined the use of the Turkish bath twice a week. Under this treatment he rapidly improved, and in the course of six weeks he became perfectly well and strong."*

* *Lancet*, 24th February, 1872.

Dr. Julius Pollock, of London, a painstaking and careful observer, treated the following.

CASE XXXVIII.—*Paralysis in a syphilitic subject. Treated by large doses of iodide of potassium. Cured.*

"J. S., a bricklayer, was admitted to the hospital on 25th November. He was a fairly strongly-built man, but of a pale and cachectic aspect. The legs and part of the abdomen and back were covered with large scars. He had considerable loss of power over his legs; he could not stand upon them; but when lying in bed he was able, with some difficulty and very slowly, to raise his feet and to bend his knees. There was less power in the left than in the right leg. There was, he said, considerable impairment of sensation in the legs, but it was nowhere entirely absent. Tickling the soles of the feet caused no reflex movement. There was a similar condition, but infinitely less in degree, of both arms, and marked paralysis of the left facial nerve. The left orbicularis palpebrarum hung in a fold on the left upper eyelid, depressing it, and giving the appearance of ptosis; but there was no real ptosis. The left pupil was rather larger than the right; no squinting. The tongue protruded in the middle line; no paralysis of palate. Some headache, referable to no particular spot. He was unable to read for long at a time, because the lines ran together. Had considerable difficulty in swallowing even liquids. He said:—'The swallow seems to go all on one side, the same as the face, and seems to stop about the middle of the throat.' A slight feeling of tightness round the chest; a dull pain in the back, and some tenderness, most marked in upper dorsal and sacral regions. About a week before admission he suffered from cramp in the calves of the legs. When he moved his legs he complained of pain up the back of the

thigh, but there was no cramp of the muscles. Obstinate constipation, but no urinary affection.

"There was a distinct history of syphilis, contracted probably in 1854; no history of any injury to the spine. He was in the hospital four years ago with a similar attack to this, from which he completely recovered. The present attack began a week before admission. It commenced with pins and needles in the feet, and he attributed it to his having caught cold.

"This patient was treated with large doses of iodide of potassium—thirty or forty grains three times daily. He was discharged in the middle of January, after a sojourn in hospital of about two months; and at that time he could walk without difficulty about the ward, the only paraplegic symptom being a slight numbness of the legs, which was fast disappearing. The facial paralysis was slightly evident, but in all other respects the man was perfectly well.

"The above case presents many points of interest. The paralysis, though strange and anomalous, was unusually extensive and complete, affecting not only the limbs and the face, but the muscles of deglutition as well. The patient presented unmistakeable marks of constitutional syphilis, which, there can be little doubt, was contracted eighteen years ago, and his body was covered with a number of scars which had probably resulted from the healing of rupial or ecthymatous ulcers. Further, he had a previous similar paralytic attack four years before. And, lastly, his recovery was complete and rapid, though, on admission, his appearance would have justified the gravest prognosis."*

* *Lancet*, 24th February, 1872.

CHAPTER III.

Syphilitic Diseases of the Eye and Ear.

There can be no more appalling spectacle in the array of diseases to which we are subject, than the invasion of syphilis upon the organs of special sense—as, for instance, to observe its bursting in upon the organ of vision, shutting out the light of heaven, and plunging the miserable victim into the drear and fatal gulf of irretrievable darkness. Fortunately this calamity is rarely met with, because science, sanitary regulations, and public benevolence have so provided that medical assistance of a specific nature is always available. There are, however, sometimes seen most pitiable instances of the devouring influence of this disease, on both the organs now being considered. By reason of some cachexia in the constitution, or some error in treatment, the disease proceeds with uncontrolled force, until it reaches these important localities, and at once establishes a state of things, worse than death itself. As will be seen in another chapter, the neighbouring tissues are especially subject to syphilitic visitation, and corrosion. The mouth, throat, and posterior nares, are almost always more or less the points of attack, whenever secondary syphilis occurs, and are subject to very rapid disorganisation. The Eustachian tube is frequently involved in the general inflammation and ulceration, being lined by an immediate continuation of the same membrane which lines the throat and fauces. So long as the ulceration is confined to the mucous membrane, and

does not reach the sub-mucous tissues, there is no very serious mischief to be dreaded; yet continued inflammation may cause thickening of the membranes of the inner ear, and, as a matter of course, loss of that delicate sensibility on which the sense of hearing depends.

Mr. Acton states that, in his opinion, "few syphilitic affections of the throat occur without more or less implicating the Eustachian tube, and thus interfering with the hearing. The irritation, inflammation, ulceration, and sloughing which we have seen attend these syphilitic affections of the throat, may readily extend up to, and implicate the Eustachian tube. That they do so in many cases I feel confident, but I am not prepared to describe the appearances, having been as yet unable to detect them. Practice teaches us, however, that temporary deafness comes on during the existence of these affections of the throat, and almost invariably disappears as the throat recovers." This statement I can fully endorse from my own observations, for I have always found that the deafness disappeared under the influence of the specific treatment employed against the syphilitic disorder, save in one case, where the deafness had been chronic for many years, not having risen originally from the venereal taint, but preceded it. I have on the other hand witnessed cases where the hearing has been completely destroyed, but these were instances in which there was complete destruction of the internal ear, before specific treatment was begun. It is sufficiently manifest, that the hearing, depending as it does upon such extremely delicate organs, would be speedily affected by the destructive agency of tertiary syphilis.

Syphilitic deafness has long been recognised. Paré has observed it.* Van Swieten alludes to deafness as the result of syphilitic ulceration of the pharynx, and adds—"Some-

* *Œuvres Complètes*, Liv. XIX., Chap. XL., page 467.

times these ulcers, which spread slowly, as is their wont, traverse the whole length of the Eustachian tube, and completely destroy the internal ear."* Boerhaave cites the case of a syphilitic patient who was struck with blindness and deafness at the same time. In treating of syphilitic diseases of the organ of hearing, Astruc thus expresses himself:—"Syphilis sometimes causes hardness of hearing, and even deafness, either from the destruction of the small bones by caries, or because, being inflamed, they have become incapable of performing their usual functions, or because the acoustic nerves are obstructed by spirits too gross, or compressed by arteries too much distended, or by nodes and ganglia formed on the vicinity of them, or by exostoses supervening in the bones which they traverse." Sometimes deafness is present, without any appreciable local cause being apparent. I have met with many such cases.† If the deafness arises from inflammation of the tympanum, we must be careful to ascertain by the history of the case, aided by the auroscope, whether it is one of syphilitic origin.‡

Leschevin *(Sur la Théorie des Maladies de l'Oreille)* has published the following:—"A young man, 27 years of age, after having had venereal chancres, which were treated palliatively, in the year 1757 began to feel very acute pains in the right ear. Some time afterwards there

*Commentar in *Boerhaavii Aphorism*, t. V., p. 369. Compare Swediaur, *Traité Complet de la Mal Vénér Syphilitique*, Paris, 1801; also Cullerier, *Journ. de Méd. de Sédillot*, XLIX., p. 202.

†Tanner observes (*Practice of Medicine*, vol. I., p. 335):—"Deafness is not very infrequent in the subject of inherited syphilis. It is usually partial. The sense of hearing fails without any local cause being apparent."

‡ "It cannot be doubted that deafness is sometimes due to syphilitic affections of the middle ear, but these cases are rather to be distinguished by their history than by the condition of the organ."—Mr. Hinton, in *Holmes' System of Surgery*, vol. III., p. 306.

appeared a sanious discharge from the meatus auditorius, and as the discharge decreased, the patient thought himself cured. Several months having elapsed the pains returned, and became even more violent than before. Lastly they were followed by mania and delirium, which nothing could alleviate, and the patient died in January, 1758. When the body was examined, the meatus auditorius was healthy, but the floor of the middle cavity was pierced, and as it were riddled, by caries; all the cavities of the labyrinth, and a great part of the surface of the petrous portion of the temporal bone, were carious and worm-eaten." Deafness arising from the syphilitic cachexia may have its origin in disease of the tympanum, ulceration of the orifices of the Eustachian tubes, morbid changes in the bones, and in abscesses of the brain. Baron Larrey has recorded cases of deafness arising from syphilitic disease of the internal ear,* and Vering† and Itard‡ have observed and recorded cases of a similar nature.

Auditory lesions may be divided into those which affect (1) the external ear, (2) the middle ear, and (3) the internal ear. Vidal and Triquet have frequently noticed the presence of pustules upon the surface of the tympanum, and so has Mr. Benjamin Bell. Ulcerations having a syphilitic character have been observed by several authors. Some, easily seen, occupied the entrance to the meatus; others, more deep-seated, could only be seen by the aid of the auroscope. These latter have sometimes caused perforation of the tympanum (Kramer). The meatus auditorius externus may become the seat of most of the cutaneous manifestations of syphilis, without excepting mucous patches, which are the most frequent of all these manifestations,

* *Mémoires de Chirurg. Militaire*, t. II., p. 444.
† *Aphorismes*, pp. 16, 22, 34.
‡ *Traité des Maladies de l'Oreille*, 1821.

and which sometimes become covered with soft and fungous vegetations (Lancereaux).

Although the middle ear may become the seat of lesion arising from syphilitic pharyngeal disease, still we may have direct inflammation of that cavity, giving rise to a train of morbid processes capable of causing deafness. The difficulty attending examinations of the internal ear, renders the precise changes it may undergo extremely problematical, but we are certain that bone lesions, caries, and exostoses, are a frequent cause of deafness. The eminent French syphilographer, Lancereaux, thus lucidly summarises all that is practically known on this subject:—

"To sum up, the meatus auditorius externus and the Eustachian tube sometimes become the seat of papular, or ulcerative eruptions, which may interfere more or less with the functions of the organ. These eruptions, which generally form a part of the secondary period, do not differ from the syphilitic manifestations of the skin, and mucous membranes. The middle ear, the internal ear, and the auditory nerve, although susceptible of primary and direct manifestations, are, most frequently perhaps, affected in consequence of a change in the petrous portion of the temporal bone. This is, at least, the conclusion to be drawn from the facts known.

"Lesions so various necessarily give rise to a variable symptomatology; but we can only speak of the more frequent symptoms. The tinnitus aurium, already pointed out by Gabriel Fallopius, who claims to have been the first to observe it, has since been mentioned by A. Paré, and many other authors. It is generally only the commencement of the deafness, as in the case given by Ad. Genselius; it is usually followed by more or less complete loss of hearing, most frequently unilateral. When there is a change in the bones or in the pharynx, deafness sometimes shows itself simultaneously on both sides. Pains, more or less violent,

with nocturnal exacerbations, are sometimes felt in the neighbourhood of the ears. To these symptoms must be added those which result from the existence of material lesions of the bones, or of the pharynx; tumefaction, fistulous openings in the neighbourhood of the mastoid apophysis, and more or less extensive destruction of the pharynx, and of the Eustachian tube.

"These various derangements are almost the only signs capable of guiding the physician in the diagnosis of the syphilitic affections of the ears; in other words, this diagnosis is based, not upon the functional derangement of the hearing, but upon an exact knowledge of the concomitant manifestations. In the absence of these manifestations, when we have to deal with deafness dependent upon a deep-seated lesion of the bones, or upon a modification of the auditory nerves, the osteocopic pains, and the coexistence of the neuralgic spots, or of localised paralyses, are circumstances which may serve to enlighten the physician.

"In reference to the differential diagnosis, let us mention the existence of a pretty frequent suppuration which may serve to characterise scrofulous affections, and the absence of suppuration, and of ulcer of the mucous membranes, as indicating rather the rheumatic nature of these same affections. The prognosis of the syphilitic lesions of the ear vary necessarily with the seat, extent, and nature of the organic modification. When limited to the meatus auditorius externus, these lesions are of little consequence, and have no other danger than that of perforating the tympanum. They are more serious when the inflammation, extending to the middle ear, produces exfoliation of the small bones, &c. With lesions of the bones, or deep-seated otitis, the hearing is still more compromised; nor is it less so when the auditory nerve is primarily or secondarily affected. In any case, when an apparatus so delicate as that of hearing is concerned, celerity

is the most important element of the treatment, otherwise we run the risk of seeing irremediable lesions appear. In such cases the trained eye is most valuable."*

CASE XXXIX.—*Bilateral deafness. Facial paralysis. Intense pain in the head. Cured.*

H. G. consulted me in January, 1871, with the following history. Eight months ago, when in New Zealand, he caught chancre, with swellings in the groin and neck. Sore throat and roseola supervened, followed by paralysis of the left side of the face; subsequently severe frontal headache set in, accompanied by deafness; he has also suffered from twitchings of the limbs.

When I first saw him the conjunctivæ were considerably injected, and there was considerable lachrymation. He complained of noises in the ears, and said he was *losing the sense of hearing;* there was also supraorlital and temporal pain, and there was enlargement of the sternal end of the right clavicle; there were coppery eruptions on the chest and arms, and his hair was falling off; there was facial paralysis; the tongue when protruded inclined to one side. Corrosive sublimate, with chlorate of potash and tincture of bark, were administered for six weeks; and then Plummer's pill at night, with iodide of potassium in large doses during the day, replaced it; this was followed by medicated baths, and Donovan's solution of iodine, arsenic, and mercury; and lastly, the iodides of sodium, potassa, and iron were prescribed. He was cured in seven months.

The **EYE** is an *organ* which is very often the seat of inflammation, and is frequently implicated in the early

* *A Treatise on Syphilis, Historical and Practical*, 1869.

syphilides, being subject to invasion simultaneously with them. Iritis, or inflammation of the iris*—as seen in one of the plates representing a syphilide on the face—is by no means an uncommon ailment, but occurs when the face is the seat of pustular or tuberculous eruptions. It also appears amongst the later phenomena of tertiary syphilis. There are thus two kinds of iritis, varying in severity and danger, from the fact that one occurs during the early exanthemata, and the other during the later and more destructive tertiaries. The patient suffers more acute pain in the former than in the latter; there is then more constitutional disturbance, and the local disease in the eye runs a quicker course. There is pain in the supra-orbital portion of the forehead, with inability to tolerate candle or gas-light. There is, as usual, the nocturnal exacerbation, which prevents sleep, and requires the use of opiates to overcome it.

The later, or nodular form, is after the character of the other tertiary lesions which it accompanies, and is of a far more serious nature, and tends to the complete destruction of the organ. The course of the disease is slow and insidious, not so painful as the first and early form, but no less dangerous on that account. The sight is dim at the early stage of its progress, and soon almost entirely departs, unless by active medication the nodular development is checked. Should the disease not be arrested, the nodules change into pus, and discharge supervenes. The iris often appears to be crowded in a portion of its surface with small yellow

* Inflammation of the iris originating in syphilis is very frequently associated with other forms of second or tertiary disease, especially with eruptions on the skin. It is by far the most marked kind of iritis, and is characterised by a tendency to rapid and abundant inflammatory exudation on the iris, especially about the edge of the pupil, in which situation yellow, reddish yellow, or nearly red nodules, sometimes attain to such a size as almost to close up the pupillary area.—*A System of Surgery*, by various authors, vol. III., p. 102.

points, about the size of a pin's head, which rupture and dry up, forming sometimes adhesions of the iris to the lens. The whole eye appears to be more or less sympathetically affected by these nodules, being swollen and congested. The vessels of the surface of the eye are considerably injected, so as to give to portions of the conjunctiva a blood-red appearance, also forming, as it were, a red zone or ring round the iris. Although the nodules only occur in limited portions of the eye, and pass through all their accustomed stages, still the organ is lost by atrophy, as well as by a corroding ulceration.* Another characteristic which I have seen, and which I find others have also met with, is the peculiar changes of colour to which the diseased iris is liable.† Blue, green, and yellow are the colours which may be observed to replace the natural colour of the eye, thus presenting, in some patients, a singular and ominous symptom. At this time the photophobia is troublesome and distressing, and the patient complains of shooting pains in the eye-ball.

M. Ricord says, when writing on this subject:—"In order to be convinced that there is such a thing as iritis of a purely syphilitic nature, it will be sufficient to watch the evolution of secondary symptoms, and to notice the close relation they bear to the different forms of iritis. The lesions which the iris present are but the repetitions of the cutaneous lesions;

* Graefe and Tolberg removed a syphilitic tumour from the iris. On examination with the microscope, all the characters assigned by Virchow to gummy tumours in an early stage were found.—*Archiv. für Opthalmog.*, t. III., part 1.

† Irides which have naturally a bluish tint, when attacked with syphilitic inflammation appear more or less green. This is caused by the presence of yellow albumen in the aqueous humour, the admixture of the yellow and blue forming, of course, a green tint. If the cornea be carefully punctured with a needle, and the fluid caught in a spoon, the application of heat will at once show the presence of albumen; and if the iris has been originally blue, that colour will be restored as soon as the fluid has been drained away.—*Op. Cit.*, p. 102, 103.

for iritis may be either exanthematous, papular, vesico-pustular, or tubercular.

"*Exanthematous inflammation, or roseola.*—The syphilitic affection of the iris often occurs at a very early period of the secondary manifestations, and its outset is marked by inflammatory phenomena. The vessels of the part become congested, and the colour changes. A blue iris becomes green, and a black one turns to a fawn colour. A vascular areola forms under the conjunctiva; its nature may be distinguished by its deep situation and its radiated form. This is, in fact, the *exanthematous form, or roseola*, attacking the iris. Lesions of sensibility may in this early stage already be noticed; there are usually headache and photophobia, but these affections are much milder than in unspecific iritis. They may even be entirely absent, and the affection then assumes a chronic form. It has even happened that the inflammation which characterises the outset of the disease depended on a complication, arising from a cause entirely independent of syphilis.

"The symptoms in most patients become aggravated in the night, through an increase of the inflammation. Photophobia comes on, and, if the iritis is allowed to progress unchecked, certain modifications arise both in the sensibility and in the different lesions which have already taken place. The dimensions of the pupil and its shape are altered: the first is contracted by an increase of sensibility; the second is changed, owing to alteration of texture."

The ophthalmoscope has revealed to us still further the seats of lesion in the body of the eye, in those parts which are not capable of being examined by external and unaided observation, such as the choroid, the vitreous humour, and the retinæ. It has discovered to us that the retina is sometimes seriously involved, and the humours of the eye also, so that the frequent suspicion of deeper lesion has been fully

confirmed. On several occasions I have, by the aid of this important instrumental auxiliary, been able to discern congestions, and in some cases ulceration of the retina, accounting for alterations in vision and other symptoms, for which there were no adequate outer manifestations. Frequently the eye in its external expression does not appear to be deranged or disorganised, when very considerable photophobia and uneasiness exists, and it is only by the use of the ophthalmoscope that the real and proximate cause of the suffering is discovered. It has been my lot on two occasions to ascertain that a severe and threatening amaurosis, which had been treated by bleedings, setons, belladonna, &c., was owing entirely to the syphilitic virus having invaded the optic nerve and the vessels of the retina. These circumstances led me to further research by means of ophthalmoscopic inspection, and I have been forced to the conclusion that more general and extended observation of the diseased eye by the profession will eventuate in valuable records of syphilitic invasion of that important organ, in its deeper tissues. The retina and vitreous body, being liable to alteration from syphilis, it is imperative that they should always be examined, now that such facilities for doing so are in the surgeon's hands. When the outer tunics of the eye are not involved, there is no difficulty in exploring the interior; but when there is severe photophobia and external inflammation, it become difficult, and sometimes impossible, to do so. The dimness of the cornea and irritability of the iris will often effectually prevent any successful exploration of the retina.

Another symptom, which is not very frequent but which is occasionally met with, is **PTOSIS** (falling of the upper eyelid). During the present year I have seen four cases of the kind, accompanied by a vesicular syphilide. This symptom is productive of great inconvenience, and is disfiguring to the

countenance, but yields rapidly to specific treatment. I met with a report some few years ago by Mr. Thomas Bryant, of Guy's Hospital, in which he described the case of a man, in whom the symptom occurred in a marked degree during the eruption of a syphilide, with the usual accompanying characteristic sore throat. The eyelid soon recovered its normal position after the commencement of specific treatment. One remarkable circumstance in the man's case was, that he had at the same time tertiary ulceration, and that mercury in the pure form had been taken freely without much benefit. This combination of symptoms occurred two years after the disappearance of a Hunterian chancre.

The *Medical Times and Gazette*, when treating, in a most able article, of "Modern Syphilography," 11th March, 1865, refers to the valuable work of M. Diday on *The Natural History of Syphilis;* and in a lucid summary of the questions discussed, refers in the following words to the branch of the question I am now treating:—"Among the nerve lesions witnessed in syphilitic subjects, paralysis of a motor nerve of the eye is not uncommon: the third pair of nerves are the most frequently, then the sixth, and the fourth pair the least frequently affected. . . . We have ourselves seen more than once in syphilitic subjects an affection of the orbit, giving rise to undue prominence of the eyeball, diplopia, pain, and lachrymation." Syphilitic affections of the internal eye (retina and choroid) are recognised forms of disease, and there are some very beautiful plates illustrative of the appearances under the ophthalmoscope in Liebrich's *Atlas d' Ophthalmoscopie.* This state of the eye under the influence of syphilis will be seen in the cases which I cite from my own and other records.*

* "Syphilitic retinitis has a slow evolution, and a comparatively long duration. Under the influence of an appropriate treatment, it may

One of the largest contributors to our medical literature on syphilitic diseases of the eye, is Mr. Jonathan Hutchinson, surgeon to the Metropolitan Free Hospital, London; and he has furnished a large number of cases illustrative of the several forms in which syphilis expresses itself in the eye.

A very remarkable circumstance brought out in his records is the great frequency of iritis and its kindred diseases in infants, and young children. From his cases I shall take some of the most illustrative, especially as they exhibit the changes in the vitreous humour, choroid, and retinæ, which have been discovered by the valuable aid of the ophthalmoscope.

CASE XL.—*Syphilitic Retinitis of one eye a few months after the primary disease. Recovery, under long specific treatment.*

"George F., aged 20, was admitted on 31st March, complaining of impaired vision in his left eye. His left retina was found by the ophthalmoscope to be congested and hazy-looking, as if thin gauze were before it. There was no iritis.

He said that he had suffered from chancres a few months before, and that rash and sore throat had followed. The rash was now gone, but healing ulcers were still visible in his tonsils. His other eye was not affected. When the course of treatment was relinquished, he had regained almost perfect sight. All the ophthalmoscopic evidences had vanished, and the retina was perfectly transparent."

terminate favourably; it is nevertheless sometimes followed by atrophy of the optic nerve, and a persistent weakness of vision."—Lancereaux, *op cit.*, p. 203.

CASE XLI.—*Extensive turbidity of the vitreous humour in both eyes. History of primary and constitutional syphilis.*

"Mrs. M., aged 36, was admitted in July, 1859. The two eyes were equally affected. She complained of dimly-seen muscæ and 'clouds of smoke' before them, and was unable to tell the time by the clock, or to read the largest type. The attack had, she said, commenced about four months ago, rather suddenly; the left was first affected, and soon afterwards the right also. With the ophthalmoscope the vitreous humour in each eye was seen to be turbid and full of white silvery films, floating in its structure. The choroids, and retinæ, could with difficulty be seen. Mrs. M. was the mother of nine children, and was nursing a baby ten months old. On her shoulders was a well-marked syphilitic rash, and she stated that her husband had communicated the disease to her in November last. Specific treatment adopted."

The following cases occurred in my own practice, and are illustrative of the importance of the ophthalmoscope, in arriving at a correct diagnosis of disease of the eye.

CASE XLII.—*Extreme turbidity of the vitreous humour. Iritis in the secondary form. Choroiditis. Cured.*

Mr. R. V., of Collingwood, called upon me in November, 1868. He was accompanied by a friend, who led him to my surgery, he not being able to see with sufficient distinctness.

He stated, on inquiry, that he had been suffering from pain and general uneasiness in the eyes for the last twelve months, but that during the last three months they had

rapidly got worse, and he was fast losing his sight. I at once examined one of the eyes (the right) with the ophthalmoscope, and discovered that the vitreous humour was turbid, and presented the usual white silvery films floating in its structure. The choroidal pigment was patchy, and could be observed with difficulty, on account of the turbid state of the humours. The retina also could not be accurately explored, for the same reason. The left eye was suffering from iritis, which he stated was recent, and there was very considerable congestion of the sclerotic. He complained of great pain shooting along the axis of the eye to the back of the head, and was seldom able to sleep on account of the pain being more intense in the night than in the day. The history of this person is remarkable, on account of the distance of time between the original chancre and the present phenomena.

He stated that he had not had any evidences of impure coïtus for twelve years, until about ten years ago, when an eruption appeared on the palms of the hands, and was then in existence in a bad form. I saw that it had all the characteristics of syphilitic psoriasis. Besides this, he was troubled with a lichenous eruption on the thighs. I commenced with an anti-syphilitic course of treatment, and in about a fortnight after the vitreous humour had so far cleared, that I could explore the retina, and found that the optic entrance was much smaller than normal, and the retinal vessels were much engorged and dilated. I took no measures towards improving this state of things beyond the anti-syphilitic course, and had the satisfaction of seeing every symptom pass away, and the sight of the patient completely restored. The local treatment consisted in the application of blisters to the temples, and a solution of atropine dropped into the eyes, in order to keep the pupils well dilated.

As there are tertiary, as well as secondary forms of specific iritis, I shall furnish a case of the latter.*

CASE XLIII.—*Tertiary syphilitic iritis. Cured.*

J. H., aged 24, consulted me in 1871 on account of disease of his eyes, with the following history:—Four years ago contracted Hunterian chancre; this was speedily followed by syphilitic fever, sore throat, and an eruption on the skin. These symptoms after a time subsided, but he never regained his health; about twelve months since his hair began to fall off, he suffered from deep ulceration of the throat and tongue, and for which he has been under treatment by a medical man in the country. On examination, I found both ires discoloured, of a yellowish green colour; there was dimness of the corneæ, and the aqueous humour was turbid; slight posterior synechiæ could also be observed. Inflammatory symptoms were of the subacute kind, the conjunctiva being but faintly injected. The fibrillæ of both ires were thickened and swollen, and their anterior surfaces were hazy

* There are, however, other cases, fortunately not very numerous, in which the iris is primarily attacked; these are indicative of a thorough and general contamination by syphilis, and are entirely dependent upon that disease. They occur during the more advanced period of syphilis, and are characterised by their painless, chronic progress, and the formation of large nodular masses in the iris, without previous implication of the other parts of the eye. The opinions of the best modern observers with regard to the nature of these peculiar tumours of the iris are considered; and although these authorities recognise the identity in composition between them and the gummatous tumours of other parts, they yet class iritis with the secondary affections of syphilis. The author, however, regards this disease of the eye, which he looks upon as true syphilitic iritis, as belonging to the more advanced, or so-called tertiary, stage of syphilis, and contemporaneous with ulcerations, nodes, &c.—Mr. Gascoyen, in *Medical Times and Gazette*, 14th July, 1869.

from effusion of lymph, and over which small tubercular nodules were profusely scattered. There was slight keratitis in the left eye, nodes on the collar-bone, and enlargement of the joints of the fingers. He was ordered to keep to a dark room, the pupils were gradually dilated by a solution of atropine, small blisters were applied to the temples, and they were kept open. The hydrarg-perchlor. with ammon-hydrochlor, and liquor cinchona, were administered during the day, and as he was troubled with nocturnal pains he was injected subcutaneously with a solution of morphia; he was allowed a diet consisting of soups, white fish, eggs, jellies, green vegetables, oysters, and ripe fruit. This treatment was continued for a fortnight with rapid improvement, when his gums became tender, and I gave him the potass chlorat, acid hydrochlor dilut, with infusion of gentian. So soon as his mouth recovered itself, I gave him the potass iodid. in large doses, combined with the citrate of iron and sarsaparilla; this was subsequently changed to Donovan's triple solution, and tincture of bark, with an occasional bath of 90 degrees, containing the perchloride of mercury, and hydrochlorate of ammonia. He was allowed a bottle of pale ale every day. Under this treatment he made an excellent recovery; the tubercles on the iris were speedily absorbed, and the synechiæ yielded to the constant application of a strong solution of atropine. The keratic condition I eventually removed by the use of a solution of the hypophosphite of soda. His eyes were some time before they cleared off, but the case was a most satisfactory one.

I may add, that the effects of the atropine far exceeded my most sanguine expectations in removing the synechiæ. Of course, it was aided in its operation by specific treatment.

The next case is interesting.

CASE XLIV.—*Syphilitic irido-choroiditis. Cured.*

W. S., aged 21, from New Zealand, came under treatment in February, 1870. He had formerly had chancres and secondary symptoms. He says his eyes had been bad for some months. He had nodular growths on the shin bones, and in the substance of the tongue. He complained of pain in the eye-balls, which was worse at night, and he had orange-coloured flashes before the eyes. There was also considerable lachrymation of both eyes. Visual function was impaired, and there was tension of the eye-balls. The aqueous humour appeared clouded, and on the posterior surfaces of the corneæ there were several punctated opacities. There were a few posterior synechiæ in the right eye. The vitreous humour was cloudy, showing floating opacities therein. He could read No. 1 of Jaeger's type.

Blisters on the temples, with morphia, and subchlor hydrarg at night, and a mixture containing potass iodid, decoction of bark, and potass bicarb., was ordered three times a day. A vapour bath was taken every alternate night, and nutritious broths, with custard, milk, jellies, &c., were liberally allowed.

Under this treatment he was soon able to read No. 2, the synechiæ were slowly removed, and the tubercles absorbed. The eye soon lost its tension, the aqueous and vitreous humours cleared off, and visual function was fair.

CASE XLV.—*Syphilitic Choroiditis in the left eye. Great debility. Diseased retina. Cured.*

Mrs. M'M. sent for me to consult as to the state of her sight, as she was daily anticipating the entire loss of it. On examining her eyes with the ophthalmoscope, I found the choroid patched with small fragments of lymph, and the

vitreous humour was turbid, containing a few films floating about in its substance. The retina was especially the seat of disturbance, the optic entrance, as in the last case, being nearly occluded, and the retinal vessels much distended. A white patch was observed on the inner side of the retina, which appeared to be slightly ulcerated. At the back of the eye, the optic nerve appeared as if enveloped in a thick fog. The pain was sometimes considerable, and worse at night than in the day. The right eye was sympathetically affected, threatening an attack of iritis, with photophobia. The patient informed me that her husband had communicated the syphilitic taint to her five years previously, when she had ulceration of the genitals, and some time after soreness of the mouth. Treatment with the iodides soon relieved her, and she was cured in about nine weeks.

CASE XLVI.—*Turbidity of the vitreous humour in both eyes. Papular syphilide on the body. Loss of vision in one eye.*

W. F., a miner, came to me in August, 1869, having lost the use of one eye, and being able to see very little with the other. On examining the eyes with the ophthalmoscope, I found the vitreous humour of the left one so clouded that it was impossible to make any observation of the retina. It was crowded with the usual whitish and flocculent films floating about in it, and the vitreous humour itself almost opaque. I concluded that there was ulceration or lesion of the retina. The right eye was also far advanced, the vitreous humour being turbid, with several white films floating in it. The retina could be observed in this eye, and appeared congested, the vessels being more conspicuous than in the normal state. The choroid in both eyes was dull and patchy—more so in the left. This patient also had several spots of papular eruption on his body, and one on the right

forearm. He stated that he had suffered from chancre and buboes four years previously, but did not know that syphilis was the cause of the disorder in the eyes. He attributed it to blight. He complained of great pain in the back of the head, running from the eye-ball. A course of anti-syphilitic treatment restored him to health, but the sight of the left eye never fully returned. Having treated him during the latter portion of the time by correspondence, I have not had an opportunity of examining the left eye again instrumentally.

Another branch of this subject is the frequency with which syphilitic disorders of the eye, and especially iritis, occur in infants and young children. It is a symptom that has been often seen, but seldom recorded as a syphilitic phenomenon, attention not having been so much directed to infantile syphilis as of late. I can, however, confidently predict that in the future many of the instances of diseased eyes occurring in children, and attributed to other causes, will be relegated to the syphilitic category. It is not at all times an easy matter to diagnose these cases, owing to the difficulty that sometimes stands in the way of ascertaining the correct history of the parents, and the surgeon or physician not being brought in contact with both parents—the mother alone attending to the requirements of the child. These cases require all the ingenuity and acumen that the medical man possesses, in order to determine whether the disease is derived from hereditary venereal taint, or is simply idiopathic.

In the majority of cases, however, there will be symptoms of a leading character present on other parts of the body, which will render it unnecessary for the surgeon to push his inquiries concerning the history of the case, should he find that there is a desire to conceal, or a disinclination to

volunteer, any information of the kind required. There will generally be condylomata, psoriasis, eczema, sore mouth, snuffles of a characteristic nature, copper-coloured spots, disorders of the nails, &c. When these conditions are present, it may be readily concluded that the disorders of the eyes are in keeping with those of the rest of the body, and that they owe their origin to the same syphilitic taint.

In most cases it will be seen that the disease in the child is congenital or hereditary, and owes its inception to the fact of the parents being in some degree syphilitic. There are cases undoubtedly, as will be shown in the chapter on hereditary and communicated syphilis, which arise from other causes than the hereditary taint, being communicated directly through other channels; these are, however, much less frequent than the cases which depend upon parental contamination. The denial of the parents that they have ever been tainted by impure coïtus is no reason for diverting the surgeon from the search for evidence wherever he may suspect infection, and should not have any weight whatever in influencing the diagnosis. The physical signs usually are sufficient to destroy the value of the most positive assurances on the part of the parents.

Mr. B. Hutchinson, whose opinions on syphilis are of the greatest value, expresses himself very strongly on the question of iritis as a symptom of infantile syphilis. He has paid considerable attention to this branch of the general question—perhaps more than any other syphilographer, and treated it exhaustively in a paper in the July number of the *Ophthalmic Hospital Reports*. His conclusions appear to me to be perfectly sound, and in keeping with all that I have seen in reference to infantile eye diseases, and I am compelled to admit that much experience and careful observation lead to no other conclusion than the one so pointedly set forth by this able writer and syphilographer. He says:

—"Acute iritis as a symptom of infantile syphilis is rare; but on the other hand it almost never occurs during the first year of life, independently of such origin. If, therefore, there be found in the eyes of a young adult the remains of iritis, either in adhesions or obliteration of the pupil, the history given of which is that they were left by inflammation in infancy, the presumption is considerable that the child then suffered from syphilis. As the subject of inherited syphilis advances from childhood to early adult age, he becomes, however, liable to other much more common forms of inflammation of the eye. These are of the utmost value in establishing a diagnosis. The disease *hitherto* known as "strumous corneitis," which consists in the interstitial deposit of lymph in the substance of the cornea, is, I am certain, in a very large majority of instances, of *direct syphilitic origin.*"

In my own practice I am guided almost entirely by the external phenomena that present themselves, and seldom find that the iritis is not associated with a syphilide. The following cases will illustrate this fact, and convince the reader that it is frequently useless to attempt to throw impediments in the way of the medical adviser. It is also worthy of consideration, that as the treatment must be of a specific character, the restoration of the child to health by that means should overcome all doubts.

CASE XLVII.—*Infantile Iritis. Coppery-coloured eruption. Condylomata at the anus. Snuffles. Sore mouth.*

Mrs. H., the wife of a miner from the neighbourhood of Ballarat, called at my house, having with her an infant of three months old, with the following symptoms:—There was on both hands palmar psoriasis, which the mother stated was present at the birth of the child; also several condylomata at

the anus, and considerable vesicular irritation about the genitals, and on the adjacent skin. These phenomena, together with the general appearance of the child, led me to the conclusion that a syphilitic taint was the cause of the disorder of the system, and of the iritis. There was much haziness of the cornea, which symptom is not frequent in children, notwithstanding its frequency in adults; also injection of the ciliary vessels. The normal colour of the eyes had altered to a greenish tint. The cornea seemed to have been the source of the inflammation, which had extended to the iris. There was also in one eye a pinkish zone, indicating considerable congestion. The sight of the child, according to the statement of the mother, was defective. The mother informed me that during her pregnancy she had a rash on her body, and a sore throat at the same time, but did not suspect its nature. Her husband had had sores (chancres) about five years before. There could be no doubt as to the real character of this case. The child had been tainted in utero, and thus the secondary phenomena occurred after birth, being, as it were, photographed on the child by the mother during gestation. The anti-syphilitic treatment adopted completely restored the child to health. The snuffles—which had continued almost from the birth—and the sore mouth rapidly disappeared.

The case which has just been given had not been suspected by the person consulted prior to its coming to me, and it is but just to say that many more cases occur where the actual cause of lesion is not suspected. Had this child not been treated anti-syphilitically, there is not the remotest doubt but the sight would have been lost in one, if not in both eyes. The disease is often very insidious in children, not producing much pain or uneasiness, hence the attention of the nurse is not specially drawn to it; it is therefore often

overlooked until serious mischief has occurred to the functions of sight. The desirableness of a correct diagnosis is manifest, as owing to the destructive character of the lesion the sight is always imperilled.

I have found that in most of the cases which have come under my notice there has been the very troublesome symptom called "snuffles," also nearly as often condylomata of the anus. These two symptoms being present, I generally find that they give the key to the whole history, and lead to further investigations, which reduce the difficulty of forming a correct diagnosis.

In reference to infantile iritis, or inflammation of the iris in the eyes of infants, Mr. Jonathan Hutchinson has collected a large amount of information, and he says, in his report of the result of his labours, that "the form of iritis which is occasionally met with in syphilitic infants is of great interest to all engaged in the extensive practice of our profession. Several circumstances combine to make this affection of much greater importance than its admitted rarity would seem to indicate. Among these may be mentioned its insidious nature, and the ease with which it may be, and usually is, overlooked; its very serious consequences; and lastly, the facility and certainty with which its destructive effects upon the function of sight may be prevented if a correct diagnosis be early formed." He goes on to enumerate a considerable number of cases of infantile iritis, and states "that infants suffering from iritis almost always show one or other of the well-recognised symptoms of hereditary taint." In the case to which he refers, the following symptoms were present at the time of the outbreak:—

"Psoriasis of the general surface.....	in	9 cases
Papular rash		2 „
Psoriasis palmaris		1 „
Erythema marginatum		2 „

Peeling of the skin	1	case
Falling of the eyelashes.....	2	„
Snuffles	10	„
Sore mouth and aphthæ	4	„
Condylomata at the anus	5	„

"Most of those children who suffer from syphilitic iritis are born within a short period of the date of the primary disease in their parents."

CASE XLVIII.—*Occlusion of the pupil. Snuffles. Cachexia. Scaly rash. Condylomata.*

Mrs. S——, in January, 1869, brought her infant of seven months to me, because, as she said, she thought it was losing its sight. I at once observed that the sight of the child was almost gone, occlusion of the pupil of one eye being nearly complete, that of the other not so far injured. There was both red and yellow organised lymph, which produced the occlusion of the left eye, and had been secreted—by report—about six weeks, though I judged from the progress of inflammation and effusion it had occupied a much longer time. The child apparently had not much pain, but its nights had generally been restless. It was much emaciated. There was a scaly rash over most of its body, and the colour of its skin was of a syphilitic tint. This woman had had three children, but they all died soon after birth. She had been tainted by her husband about eight years previously, and had had a cutaneous eruption about three years ago that continued for nearly a year. It then left her after a course of mercurial pills. Her system was however still suffering from the venereal poison, her countenance, and her hands and arms, having the same dirty yellow tinge that her infant exhibited. The mother and child both were put under treatment, and in three months had completely recovered.

These cases are given simply as representative ones of the disease as it appears in Victoria, and are selected casually from many, others of which present phenomena of a more destructive character. I find also that the disease is more frequent than is generally supposed, and although I may not be ready at once to endorse the statement of Von Graefe, that syphilis is the cause of 60 per cent. of iritis from all causes,* still I do believe with him, and many other eminent syphilographers, that it is a very frequent cause of that terrible disease.

* *Deutsche Klinik*, 1858.

CHAPTER IV.

Syphilitic Diseases of the Heart and Blood Vessels.

THE HEART.—In entering upon a notice of the syphilitic lesions of this important viscus, I cannot do better than direct the attention of the reader to the plate which represents the characteristic deposits in the organ. It is identical with the one given by M. Ricord in his now-celebrated work, *Iconographique Clinique de l'Hôpital des Véneriens*, 1845, and exhibits very clearly the dangerous deposits which sometimes take place, and unfortunately in many instances without recognition. In describing it he says:—"The walls of the ventricles presented in many places a tuberculous-looking yellow matter, creaking when divided, without vascularity, of a scirrhous (or cancer-like) consistence in some points, and in others analogous in appearance to tuberculous matter undergoing softening. In a word, we find all the characteristics of the nodules or tubercles of tertiary syphilis which we often observe in the subcutaneous and submucous cellular tissue." Other eminent observers and syphilographers have given drawings of similar tuberculous and syphilitic formations in the heart, and I have little doubt but that many of the extremely frequent cardiac diseases derive their origin from constitutional syphilis.

In the Museum of the Army Medical Department at Netley, there are two preparations which show gummata, or cheesy substances, in the heart. One occurred in the case of a soldier, 24 years of age, under treatment for venereal ulcers of nine months' duration in several parts of the body. He had lost his palate, and eventually sank from exhaustion, with symptoms of phthisis. Sections of the muscular substance of the heart showed several isolated deposits in its substance and beneath its serous covering, and isolated portions of the lung were converted into a substance of the consistence of cheese (Aitken).

Many cases of cardiac syphilomata have been recorded, the subjective symptoms being pain, palpitation, and shortness of breath. Embolism and ulceration of the heart may follow softening of the syphilitic growths. A cure may reasonably be expected when specific treatment is employed before the muscular structure of the heart has undergone progressive degeneration.

Hypertrophy of the heart may follow syphilitic deposition on its walls. Ricord cites a case where a man contracted chancres in 1824, and died from specific degeneration of the heart in 1845.

Mr. Morgan, of Dublin, contributes the following:—"A prostitute had sores on the genitals in 1850, and she died in 1868, from the formation of syphilitic gummata in the walls of the ventricles."

Portal observes that "the venereal poison may produce erosion of the heart and weaken its walls. Not being able to resist the effort of the blood, these yield, and the cavities of the heart become enlarged and dilated." This is proved by numerous observations of Morgagni, Sénac, and Lieutand.*

**Anat. Médicale*, Paris, 1803.

I have many times been led to the conclusion that this state of things existed in my patients, from the fact that on instituting the anti-syphilitic treatment I have seen results follow it which would not, and could not, have followed any other based upon a different diagnosis. Diseases of the heart, with considerable hypertrophy, and some with distinct valvular insufficiency, have on more than one occasion given way to a purely anti-syphilitic course of medication, when they effectually resisted every other mode of administration. It is true that in most of the cases to which I refer there have been other tangible and external phenomena, as well as historical data, on which to found a decided diagnosis, but there have been other cases in which the collateral evidences have been less manifest. Even in the latter cases, there were the happiest results from the treatment I adopted on the supposition of syphilis complicating the disorder.

In the *Mémoires de la Societé Royale de Médicine*, 1775, is the following:—"A young woman died in the Hospital of Refuge, at Perpignan, after having presented the most severe symptoms of constitutional syphilis, with cardiac symptoms, and acute pain in the region of the heart, shortly before death. At the *post-mortem* a large ulcer occupied the posterior surface of the heart, to the whole extent of both ventricles; at the bottom of this ulcer were found only a few muscular fibres, which formed a very thin layer, and were broken by slight pressure of the fingers." An eminent French syphilographer has conclusively established an ætiological relation between syphilis and affections of the heart. He considers that venereal excrescences upon the genital organs, and vegetations upon the cardiac valves, have identically the same origin.*

* Corvisart, *Essai sur le Maladies du Cœur*, p. 89.

CASE XLIX.—*Syphilitic disease of the heart, with hypertrophy of the left ventricle, and dilatation of the aorta, together with syphilitic deposit in the muscular substance of the heart.*

A private soldier of the 48th Regiment, stationed at Gibraltar, was admitted into the garrison hospital there in 1855, under my care, when he presented the following symptoms, namely:—Great difficulty in breathing, with a troublesome cough. His face was livid, his respiration was hurried, and his sleep was much disturbed. He complained of pain across the chest. He had no appetite, and he vomited occasionally. The lower extremities were swollen as high up as the knees, and pitted on pressure. The pulse was 78, and jerky. Percussion indicated an enlarged state of the heart, and a loud bellows-murmur accompanying the second sound, heard loudest at its base. He was much reduced in weight, had suffered from secondary syphilis, and at the time of his admission into the hospital he was suffering from ulcers on the tongue. He was nearly bald, and there were nodes of a syphilitic character on the shin-bones. I concluded that the whole of this man's symptoms depended upon a venereal taint in the system, and should have at once commenced with anti-syphilitic treatment, if the chest symptoms had not been so urgent. I therefore administered such remedies as would relieve the most prominent and dangerous symptoms, and he seemed to improve considerably, until he was suddenly seized with an attack of syncope, which terminated fatally in a few minutes.

The examination after death showed the heart to be much enlarged, its weight being one pound six ounces, and measuring five inches and a quarter in its transverse diameter; there was also considerable dilatation of the left ventricle,

in the walls of which were found well-marked deposits of syphilitic degeneration. The ascending portion of the aortic arch was also dilated, and its lining membrane seemed to be undergoing the process of syphilitic ulceration.

This is only one of the many cases in which the heart has betrayed the syphilitic lesion. I have seen several of the same kind in the army, in venereal hospitals at home, and on the continent. I may also mention that I opened the body of a man who had died from syphilitic disease of the bones of the skull in the Melbourne Hospital, and found the air passages, velum-palati, liver, and heart, bearing testimony to the fearful ravages of syphilis.

CASE L.—*Syphilitic disease of the heart. Incompetency of the mitral valve, with hypertrophy of the left ventricle, and dilatation of the arch of the aorta.*

A gentleman from Bombay consulted me two years ago on account of palpitation of the heart, and shortness of breath, from which he says he has suffered for twelve months. He said that four years previously he contracted both chancre and bubo, for which he was treated in India, and he thought he was cured, until three years later, when secondary syphilis appeared on the body, and his hair fell off. For these symptoms he was treated with the mercurial vapour bath, and the spots disappeared; but from that time he has felt his health and strength fast failing. When seen by me, I noticed that, although his breathing was much embarrassed, the stethoscope disclosed no disease of the lungs or air passages, and I looked, therefore, for the cause in the organs of circulation. The percussion note, which was dull, measured three inches transversely, and auscultation discovered over the region of the heart a murmur, like the sound of a bellows, synchronous with the first sound at the apex,

decreasing as the stethoscope was moved towards the base. The second sound of the heart was normal. Under the clavicle slight pulsations could be felt, and the pulse at the wrist was 108, full and jerking. There was no cough nor expectoration. The patient suffered from slight deafness, pain in the head and limbs, and dimness of vision. He had palmar syphilis in both hands, and a syphilitic ulcer just within the anus, also one between the toes. He was placed under a careful and prolonged course of specific treatment, allowed a generous diet, tepid baths, with friction to the skin, and I was gratified at finding the difficulty of breathing, the pains about the body, together with the eruption on the skin and the palpitation of the heart, disappear. Although there was a slight dilatation of the aorta recognisable, the patient returned to India in an otherwise perfect state of health.

It is universally admitted that the muscular system is extremely liable to inflammation, and serious alteration through the syphilitic virus, as was seen in the last chapter; hence, as the heart is eminently a muscular viscus, there can be no reason for inferring, as some do, that it should not also be the seat of syphilitic lesion. I am inclined to think that, as in rheumatism, the heart is the first organ to suffer, in some degree or other, from the syphilitic taint, when it becomes constitutional. In this and the neighbouring colonies, but especially in Victoria, where diseases of the heart are so unusually frequent, I am surprised to find so little attention paid to that source of cardiac disturbance. I am fully persuaded, that were more attention given to it by the profession generally, and accurate records kept, we should soon have sufficient cases to establish beyond question the influence of syphilis in disturbed function and cardiac disorganisation.

It would be well if more *post-mortem* examinations of that organ could be made, and those made more carefully where opportunity offers, in order to search for the gummata, which are known frequently to exist both in the auricles and the ventricles. I have seen them several times in autopsies which have been made for other purposes, and where their existence had nothing apparently to do with the cause of death; hence I conclude that they might be more frequently recorded as existing in the heart, if they were looked for and recognised. Those which I have seen have generally had the nodules in the substance of the auricles and ventricles, and I had the opportunity some time ago of examining others presenting every characteristic of those given by Ricord in his large work on Syphilis. Virchow and Lancereaux are the two observers who have recorded the greatest number of organic lesions of this character, but many others are now prosecuting their researches in the same direction.

Virchow describes these syphilitic growths, and refers to cases of a similar kind recorded by Ricord and Lebert. Ricord in his atlas gives illustrations of them, and calls them "syphilitic muscular nodes in the substance of the heart" (*Clinique Iconographique*). Firm, yellow, cheese-like masses were found in the substance of the ventricles: there was with them a history of old chancres and ulcerated tubercles of the skin.

In Lebert's case these gummata were seen at a comparatively early stage of development, and were found in the wall of the right ventricle. There were tubercles of the skin, of the subcutaneous tissue, genital organs, and bones of the skull (Aitken).

BLOOD VESSELS.—As would almost naturally follow, the blood vessels would more or less be implicated in the misfortunes to which the heart itself was subject. The large

arteries and veins near it are prone to be affected also, and to suffer sometimes severe degeneration, as was seen in the case from India, where the aorta was diseased. Much, however, is not known concerning this form of lesion, save that it is found usually to select the large arteries as its seat of operation. The internal carotid artery is the one which most observers have discovered to be involved. The blood itself undergoes a most important change wherever there is a decided syphilitic diathesis—viz., a diminution of the number of the red globules, and in some cases to such an extent as to simulate the worst conditions of anæmia. This degeneration of the blood current I have frequently witnessed, in microscopical examination of that fluid taken from syphilitic patients. Dr. M'Carthy, of Paris, states, in support of this fact, that the same sounds which are heard in the carotid arteries of those suffering from anæmia, are heard in the heart of the syphilitic patient.

Mr. Acton states that "anæmia is the result, partially, of syphilis, where it has been credited to the treatment by mercury," and most authorities allow that the blood does undergo a material change towards degeneration; hence there can be little wonder that the heart and the great vessels should be to some extent influenced thereby. Sometimes that condition of things is seen which was so manifest during the terrible venereal epidemic of the fifteenth century. Livid patches appear, and the ulcers have that peculiar bloody character which indicates that the blood is liquefied, and has altered in its proportion of red corpuscles. As the last-mentioned writer, in his exhaustive work on the generative organs, observes:—"Although it appears that the blood must be in some way affected, it is at first only the skin and mucous membranes, and the superficial organs, which participate in the disease. Why this should be the case, is among the many questions which the pathologist

may ask, and seek an answer in vain. But if the disease is allowed to go on, *deeper tissues will successively be attacked, until tertiary symptoms appear.*" The appearance of the syphilitic patient will frequently indicate distinctly this deterioration of the blood, and auscultation will, if carefully conducted, almost as often find associated with this degeneration of that fluid certain abnormal conditions in the functional operations of the heart itself.

CAUSES.—"The causes of thoracic aneurism are exceedingly obscure; but there is good reason for believing that the morbid conditions associated with *alcoholism, gout, rheumatism,* and *syphilis,* are the circumstances under which aneurisms are most apt to be developed, the elasticity of the vessel being impaired by structural changes, the result of a chronic *endoarteritis.* With regard to the influence of syphilis, I may here observe that I dissected, during four years (at Fort Pitt and Netley, hospitals for invalids), twenty-six bodies of soldiers, in each of which a distinct history of syphilis was present, associated with unmistakable syphilitic lesions; and of these twenty-six cases, *seventeen* had the coats of the thoracic aorta impaired by characteristic changes—changes which are uncommon at an early period of life, and which I have every reason to believe were due to syphilis—a *syphilitic arteritis.* The changes are obvious, from cicatricial-like loss of substance of the inner coats, small local dilatations of the artery, and in several cases aneurismal expansions, one as large as an orange, which proved fatal. A characteristic case of aneurism of the thoracic aorta resulting from syphilis is also recorded by Assistant-Surgeon Alfred Lewer, in the *Medical Report of the Army Medical Department* for 1862, p. 512" (Aitken).

Syphilis may not be so prominent a cause of aneurism of the aorta as occasionally occurring and striking cases might lead us to believe. In common with gout and rheumatism, it

certainly tends to impair the nutritious and functional properties of the blood-vessels, especially affecting their outer coats and innermost connective tissue, so that any mechanical straining of the vessel finds out its weakest part, and readily sets up an *endoarteritis*, resulting in atheroma, or in aneurism, or in both. There is very strong evidence in the following records, collected by Staff-Surgeon Dr. Peter Davidson, as to the influence of *atheroma* in the production of *aneurism*. In 114 *post-mortem* examinations of soldiers dying at Netley, he found 22 cases of *atheroma* of the aorta. Of these, 17 had a syphilitic history, 1 was doubtful, and 4 had no syphilis, but had heart and lung diseases. Of the whole 114 cases, 78 had no syphilitic history, and 4 had cases of *atheroma*, or 5·1 *per cent.;* 28 had a marked syphilitic history, and 17 had *atheroma*, or no less than 60·7 *per cent.* (*Army Med. Dep. Report*, vol. v., p. 481).

It has fallen to my lot to treat a large number of cases of aneurism of the aorta, and in the majority of these I have been enabled to trace a syphilitic history.

VISCERAL SYPHILIS.

CHAPTER V.

Syphilitic Disease of the Lungs and Air Passages.

I now come to treat of syphilis in its unseen operations, where its phenomena are unknown, save to the surgeon and the pathologist; to treat of its terrible onslaught on the viscera or special organs of vitality, and to point out, as clearly and as concisely as possible, the destructive progress the disease sometimes makes, even when unsuspected. It will be my aim in this chapter, as in some others, to show that, in reference to organic and visceral disorders, mistakes of a fatal nature are made in not recognising the real cause of sickness, thus allowing the subtle and unsuspected evil to continue its ravages even to death, under the covering of another name and an incorrect diagnosis. I shall have no difficulty, I think, in making this painful fact apparent to my readers, and by this means I shall be able to lead them to a more ready recognition of the symptoms which indicate syphilitic visceral disease. Too much information of a special character cannot be afforded to the profession on a subject of such deep moment as the approach of syphilitic lesion in the central organs, for when that stage of contamination is setting in, time and knowledge are of immense value, and the latter should be brought to bear upon it with the utmost diligence.

Every organ of the body is more or less subject to the ravages of syphilis. We have seen how severely the skin and the appendages are affected by it, but it also preys upon the heart, the blood-vessels, the lungs, the larynx, the liver, the trachea and bronchi, the stomach and the intestines, the spleen, the pancreas, the mouth, tongue, and pharynx, the brain and spinal column, the nerves and organs of special sense, the kidneys, and the generative organs of both sexes. Thus it is seen how wide a range of destructive action this disease attains, and how much the functions of life must be perilled when it is permitted by negligence or ignorance to proceed unchecked. It is concisely sketched in No. 67 of the *British and Foreign Medico-Chirurgical Review*, as follows:—"The internal and external organs are equally affected; not only the cranium, but the brain within it, or the nerves; not only the pharynx, but the œsophagus; not only the larynx, but the trachea, bronchi, and lungs, besides the liver, spleen, and other viscera."

Such great authorities as Ricord, Virchow, Lancereaux, Munk, Hughlings Jackson, Althaus, Stokes, Graves, Wilks, and Parker, have written much to teach us how serious are the lesions that take place in the internal organs, and have demonstrated beyond dispute that the simulation of organic diseases by syphilis is by no means an unfrequent occurrence. So searching indeed is the virus, that it invades even the nerve tissue itself, and is often on this account lamentably injurious to the integrity of the mind. Its ravages in this tissue have called forth special observation from Virchow, Hutchinson, Séquard, Ricord, Gross, Lancereaux, Mayer, Lagneau, and others, and some of the ablest works in our physiological and pathological literature are rich in research on this seat of syphilitic action. Our medical literature has never been more copious on any branch than it now is upon

this special one of constitutional syphilis, and the profession are thus invited to a more precise examination of the many grave forms in which it manifests itself. It is only in recent years that the subject has been so exhaustively treated, and has attracted the attention of so many distinguished observers. Ricord, the great syphilographer of the age, has led the van in this valuable and important course of investigation, and has, by his acumen and skill, placed humanity under a deeper obligation to him, than to any other of the medical luminaries of which this century is so proud.

Pathological demonstrations have been made in abundance, to verify the opinions that have from time to time been advanced in reference to organic syphilis, and each organ has been found to exhibit varied indications of the virulent action of the syphilitic poison. The results of such observations in the valuable records that are now accumulated, go to show how much was till lately unknown of this direful plague of the human race, owing to the absence of precise information and intelligent recognition of its operations. Being so little understood, it is not to be wondered at that at certain periods of our history, as a race, it operated as a destructive epidemic, and slew thousands with the rapidity of a plague. It was, however, only known by its external phenomena, the fact of its invasion of all the tissues being scarcely surmised, although now there is no doubt but that when it was so alarmingly fatal, it became so by reason of the poisoning of the functional sources of vitality. There is even now a little scepticism left in the least advanced minds, and unwillingness to accept the new discoveries, holding—for the sake of old associations—to the ancient opinion of the skin and appendages being the sole seat of syphilis.

This unwillingness is, however, bending before the weight of accumulating evidence, so that few in the profession who have had opportunities of investigation now oppose the

doctrine of constitutional syphilis and visceral taint. Dr. Wilks, physician to Guy's Hospital, London, has done much to bring about this important change in medical opinion regarding syphilis, and although, when a few years ago he first took his pathological specimens of syphilis to the Pathological Society, as material illustrations of his views on the subject, he was met with general scepticism, he has lived to see his opinions embraced, and a host of enthusiastic coadjutors in the same path of investigation. He suggests the reason for the long neglect of visceral syphilis by saying—"That so apparent a conclusion was not arrived at before, was due probably to the fact previously alluded to—the division of our profession into surgery and medicine, and thus, as syphilis belonged to the former department, the external relations of the disease were alone studied." He goes on to say—"What we now maintain therefore is, that owing to the greater attention paid to morbid anatomy, we have found the internal parts of the body affected in a similar way to the external." The surgeon had long observed the skin diseases, and the nodules on the bones, condylomata on the mucous outlets, and exudation of lymph on the iris, &c., but now it is known that perfectly similar syphilitic nodules are to be found on every organ of the body.

"The gummatous nodule has now been recognised and described in almost all the solid viscera of the body. Symmetrical development is a most constant characteristic. If a node grows on one shin, it is probably also to be found advancing on the other; if found in one testicle, it is extremely probable that it will be seen in the same relative spot on the other. Numerous examples of this symmetrical development may be seen preserved in the Pathological Museum of the Army Medical Department, at Netley. During the growth of the nodule, proliferation advances

slowly, and a glue-like material forms, which constitutes the inner cell material of the nodule. If near the surface, such a nodule is apt to melt down, soften, open, and ulcerate; and such a result seems to be associated with other evidence of active constitutional disease, such as exists with a predisposition to tubercle, or with its actual existence. The tumour, however, continues gelatinous and coherent if it is enclosed in a dense part, or is deeply seated, as in gummata of the periosteum, scalp, brain, liver, testicle, *lungs*, and heart, if constitutional disease remains latent or inactive. Pulmonary pthisis must be regarded in many cases as the product of syphilis; and I would fully endorse the statement of Dr. Balfour, from what I have seen in the *post-mortem* rooms, when he says that a great cause of pulmonary disease among the Guards is the amount of syphilis which prevails amongst the men, which he has not the least doubt is a fertile cause of its being called into active operation. The influence of syphilis on the health of the soldier is, indeed, powerful for evil throughout the whole army. The treatment of such pulmonary lesions, when their nature is clearly established, must be guided by the rules already laid down for the treatment of syphilitic disease" (Aitken).

Syphilis will henceforth be considered and observed as a very different disease from what it was wont to be regarded. It will now rank with variola and kindred diseases, but with a position of much greater importance, more dangerous in its advent, and more constant in its hold upon the constitution. It will henceforth be viewed as the *most baneful of the animal poisons;* less rapid in its development, but more penetrating and disorganising in its ultimate operations, frequently destroying all the tissues it may attack, before it exhausts its own force. We are confirming by pathological experience the presumptions of the physicians of the fifteenth and sixteenth centuries, who "not only recognised syphilis

as the result of a specific poison or virus, but they firmly believed it was capable of profoundly affecting the system, and of giving rise to many and specific internal derangements, as well as combining with and modifying other diseases."

Lallemand, Brown-Séquard, Hutchinson, Lagneau, and a host of others, have done much, by correct observation and pathological research, to verify the surmises of the old physicians, and to finally establish the doctrine of organic syphilitic lesion. These distinguished investigators, who have gained a world-wide fame by their profound researches and unremitting industry, have devoted their great talents and opportunities to the investigation of syphilitic phenomena in the nervous system, and have brought to light many forms of nervous derangement, depending upon this virus, which before had not been supposed to have so remarkable an origin. It has been said that Benjamin Bell was the first writer who placed to the credit of syphilis many internal disorders, and boldly taught the same, as well as supported it by recorded facts. Since his time overwhelming evidence has been adduced of the general influence of syphilis over the entire organism, in all its tissues and secretions, and the profession now is almost unanimous in its admission that syphilis is a constitutional, as well as a contagious, disease.

I have referred thus much to the discussion on the question, and to the great authorities who have made it their business to give decisive teachings on the subject, that the general reader may more confidently accept the statements I may make in reference to the class of diseases now to be brought under notice. The early portion of this work has been devoted to a general sketch of the outward phenomena of syphilitic activity, and to illustrations of the *modus operandi* of its development. The following portion is devoted to a

far more serious phase of the malady, and one which ought to engage the attention of every member of the profession. So important is a more extended knowledge of syphilitic poisoning, that it will frequently happen that its recognition by an experienced observer at once solves a perplexing difficulty, and by directing a special course of treatment in harmony with the newly-discovered light thrown upon the diseased phenomena, will cure the patient, thus disposing of symptoms which had before defied every effort to modify them.

It is to be observed that constitution and temperament cause modifications in the course and virulence of the disease, the lymphatic generally being the most susceptible to its influence, experience showing that in such constitutions it is more rapid and more fully developed than in others. It is true that it is sometimes seen in other temperaments in its worst forms; but, as a rule, the observation just made in reference to the lymphatic temperament holds good. There are also some families more predisposed to suffer from syphilis than others, just as we find in some special receptivity for other animal poisons. Mr. Acton relates a case which sustains my own observations; it is as follows:—"I have seen a case of severe tertiary affection in a gentleman in whose family it is well known that there is almost an hereditary tendency towards affections of the bones when once syphilis is acquired. This gentleman, after returning from India, died in England from the ravages of syphilis attacking the bones and internal organs." In my own practice, I know families and individuals in whom syphilis seems to find a most genial habitat for its development, and whom I have difficulty in saving from positive destruction whenever it may appear. Not only is there this occasional but unfortunate aptitude in the system to yield to the syphilitic virus, but there are also many predisposing causes

which it will be well to cite before leaving this part of the subject. It has also been discovered by Ricord, that syphilis tends to lessen the number of the blood globules.

Any conditions which tend to the degeneration of the vital functions, and the inducement of cachexia, or a state of low vitality, are eminently favourable to the rapid and destructive progress of syphilis, presenting no barrier of vital resistance to its fermentative process. The usual concomitants of poverty are so many auxiliaries to its career, and by lessening the activity of the *vis medicatrix naturæ*, aid the virus in its consuming march through the tissues. It is not unusual to find that any debility induced in the system by want of food, accident, or common sickness, will give rise to syphilitic symptoms in persons where the taint has been known to be latent.

As a matter of course, organic syphilis, or what some term the tertiary manifestation of the disease, is to be looked for with certainty, proportioned to the severity of the attack of the primary and secondary phenomena, and proportioned to the plan of treatment adopted at the time. It is quite possible for the surgeon who may have the management of the case in the two first forms so to control the force of the virus as to protract its latency, or even destroy it altogether. It is equally possible by inappropriate treatment to give intensity to the disease. It is to me a by no means unreasonable presumption that the tertiary stage may be completely prevented by judicious treatment, in accordance with the teachings of the leading authorities of the day, and the valuable light that science has recently thrown upon the therapeutics of syphilis. But while admitting this, it is unfortunately too apparent, as thousands of unfortunate victims can testify, that not only does unscientific treatment not prevent the accession of the tertiary stage, but it hastens its approach, and augments its destructive

power. This fact is daily presenting itself to me in the consulting-room, where I am called upon to treat the most lamentable cases, which owe their terrible characteristics to the absence of earlier rational and specific treatment, to the unwise use of mercury, and the legion of abominations that are flaunted before the world as infallible remedies. There is no desire on my part to disown mercury altogether as a curative agent; it is, however, but one of them, and should be used with infinitely more discretion than is usual. Its excessive use will undoubtedly produce that kind of dyscrasia which determines the rapid course of syphilitic development, and by lowering the vital condition of the system, leaves it a prey to the ravages of the worst tertiary lesions.

These are some of the circumstances which tend to modify the nature of that serious category of diseases which I am about to describe. I may however add, that the character of the primary and secondary attacks will not be unimportant circumstances in their bearing on the tertiary stage. Hunter himself noticed that the character of the primary sore bore some relation to the more advanced phenomena of the disease in subsequent stages; that is to say, that there is a relation between the severity of the latter phenomena and the phagedænic aggravation of the primary sore. Other writers have made the same observations, and expressed themselves in accordance therewith, and it embodies an idea which has long occupied my mind in reference to syphilitic invasion—viz., that at an early period it is possible to determine the extent to which the body will be affected by the disease, or the power of resistance in the constitution. As stated in the *Medical Times and Gazette*—"A cutaneous syphilide earlier in its appearance (from thirty to fifty days after the appearance of the chancre), wide in its extent, and very superficial in its character, denotes the milder degree of constitutional infection; while the discreet and localised morbid processes,

affecting the deeper tissues of the skin and mucous membrane, have the opposite character of a severe degree of syphilitic infection."

The same theory holds with reference to the secondary phenomena; thus, to continue the quotation from the same authority—"When the secondaries are rather late in appearance; when they at first or speedily assume particular and mixed forms—such as large papular elevations of the skin, which suppurate when numerous superficial pustules or vesiculo-crustaceous scales form upon inflamed patches of skin, accompanied by similar affections of the scalp; when the engorgement of the throat is well marked at first—not a mere snail-track throat; and when there is an elevation of mucous membrane about the palate, as if from a product effused into its substance, or underlying its surface—these symptoms express differences of severity from the first type, every bit as great as between the throat affection of the severe and of the mild types of scarlatina. The gravity of the prognosis increases according as we perceive by the early and subsequent softening and degeneration of these lesions, that the lymph is more or less destitute of plastic elements. The marasmus only too often advances, *pari passu*, with the degenerate action going on in his tissues. The above expresses in its worst forms a profound syphilis, or bad constitution, such as the strumous (scrofulous); but there is another type difficult of cure, out of proportion to its apparent effect on the constitution. . . . . When a large papular elevation appears at some part (say the groin), inflames, softens, and becomes an ulcer, it assumes very peculiar characters, and exhausts our ingenuity to heal it."

So grave are the final operations of syphilis which pass under the generic term "tertiaries," that any information which may conduce towards the anticipation of them, and an amelioration of their severity, must be a manifest advan-

tage. The quotations which I have just made show very plainly that there are states of syphilitic development which are of so aggravated a character as to defy medication, and tax to the fullest extent the skill of the physician or surgeon; but at the same time it is inferred that even in the worst cases—similar to some I have described as under my own treatment—if legitimate and specific courses are taken to neutralise the poison, the risk of fatal consequences will be materially reduced. In no disease is it more imperative that truly scientific treatment should be adopted, and none in which so much real and enduring mischief is done by a non-specific form of medication.

The diagnosis in many cases is difficult, requiring long and attentive observation; especially in reference to lesions of the heart and lungs. It will be seen, by the plates given to illustrate a few of the organic changes, how determinately the syphilitic character is stamped upon the most important viscera. The disease is often masked by a class of symptoms which simulate other coincident diseases of the organ deranged, but which would not exist if the main agent in the lesion—viz., the syphilis—were overcome. Hence the great necessity that the syphilitic diathesis should be easily and readily recognised, and removed out of the way, as a hindrance to recovery.

Dr. Moxon, assistant physician to Guy's Hospital, fully bears out my observations in reference to the necessity that exists for more careful analysis of the symptoms of disease where syphilis is suspected. He says "that he is persuaded that the frequency of syphilitic causation of medical disease is not usually so familiar and ready to the mind as it should be, in order to the early detection of it under the very various forms in which it comes before the physician." Again—"Until the doctrine which ascribes to syphilis the lesions in question is universally and fully

allowed, and put into practice, I conceive that those *who have considerable means* of testing the truth of the view, lie under obligation to state publicly their experience. For, as is usual and is right in the rise of new doctrines, there are those who oppose a sceptical face to the new opinions, and deny the syphilitic nature of the affection. Such natural and useful doubts, expressed by observers of distinction, are very powerful to hinder the spread of the recognition of visceral syphilis among those practitioners who have little or no opportunity of personally examining *whether anything characteristic of syphilis is in the viscera of cases which have been unsuccessfully treated—perhaps because the suspicion of syphilis as the cause of the trouble was never aroused.*"

The hint thrown out here is strikingly *en rapport* with occurrences in my practice, and I was gratified to find that other observers had noticed the same important circumstance in relation to those doubtful and intractable diseases which sometimes baffle every effort at cure by reason of the syphilitic complication in the lesions. The same writer further remarks :—" It must be allowed that there are sure to be cases truly syphilitic where no account of the syphilis can be got from the history ; circumstances often render it imprudent or improper to ask directly after such a disease, and the truth of replies cannot be relied on when the question is put ; and further, if we could always learn all that the patient knows about his own case, we should find much difficulty, from the confusion of the non-infecting sore with the truly syphilitic chancre, so that after the primary disease has long passed by, we may be quite unable to learn whether a scarce-remembered disease of the genitals was really syphilis. . . . . Every one will, however, see that syphilitic cachexia is a thing which it is of the first importance to recognise."

A case strongly illustrative of the point under discussion is the following.

R. A., a young man of respectable parentage, residing in St. Kilda, had, prior to his calling upon me, been under the care of two of the ablest physicians of the city, by whom he had been treated for a considerable time for phthisis. He called upon me in the hope that I might be able to render him more efficient aid, in what he fully believed to be consumption. Knowing the deserved reputation and skill of one at least of the gentlemen who had treated him, I felt assured that if it were phthisis alone, I should not be more successful. On auscultation, I found many of the physical signs sufficiently distinct to be quite convinced that the left lung was the seat of considerable lesion, and that there was hepatisation of a portion of the right. Both percussion and auscultation determined considerable alteration in the condition of the left especially. There was dulness on percussion on the upper third, with slight crepitation near the clavicle, and harsh respiratory murmur, also a moderate amount of vocal resonance. The cough was very troublesome, especially at night, and the patient suffered much inconvenience from nocturnal perspiration. The sputa was abundant, dense, and yellowish. The appetite was tolerably good, although he was very thin. His having received no benefit from the treatment of the gentleman referred to, induced me to suspect that this might be a case of compound syphilis, and my first attempt towards testing it was to knead his sternum, which I found gave him intolerable pain. This led me necessarily to prosecute my investigation further, and I eventually ascertained that about two years previously he had been treated for chancre, and had since then had a rash for which he was not treated, but which I determined from his description to have been *Lichen Syphilitica*. There was unusual tenderness of the anterior portion of the tibia in both

legs, with patches of characteristic discoloration over the seat of tenderness, extending to the right and left. These indications caused me to treat his disorder as though it were one of pure syphilis, and I had the extreme satisfaction of seeing a marked improvement in the course of fourteen days. In less than three months he was quite restored.

This case was so well marked, and so decisive in support of my opinion as to the influence which syphilis often exerts in many diseases, especially where there is any peculiar dyscrasia, that I have many times since been induced to suspect its presence, when treating idiopathic disease in which I had unusual difficulty in controlling existing symptoms, and have modified the treatment with the best results.

My experience so far has led me to the conclusion that medical men are little aware how often they are baffled in their efforts to relieve their patients, through this unwelcome taint lurking unsuspected and unnoticed. The discovery, therefore, of the intrusion of syphilis into visceral disorganisation is one of the most valuable additions to modern therapeutics, and has thrown much light upon diseases which otherwise were obscure.

LUNGS AND AIR PASSAGES.—Diseases of the lungs and air passages are so common, and at the same time so intractable, that they naturally present themselves first for consideration, on the supposition that the difficulties generally surrounding their treatment may be found sometimes to arise out of the syphilitic association. Every practitioner is frequently painfully aware how little help he can give to the suffering invalid, who is supposed to be the victim of that serious dyscrasia, consumption; how often his best efforts, though guided by the most recent lights of science, are of no avail towards checking the onward march of tubercular deposition and degeneration. Much has been

done by physical exploration, thanks to the discovery of the immortal Laennec, so that the stethoscope enables us to trace the extent and character of the lesions to which the lungs may be subject, but we are not so powerful to cure such lesions as we are skilful in discovering them. We can determine the formation, progress, and decomposition of the dangerous tuberculous deposits, but we are seldom fortunate enough by our medications to arrest them. It is one of the opprobria of medical science in this case, that it has only learned yet how to observe with accuracy, but is almost powerless to assist. I am, however, able confidently to state that there are many cases where a cure can be attained by an anti-syphilitic course of treatment. This to me is an encouraging circumstance, and I have frequently had occasion to feel gratified that my observations had led me to search for syphilitic indications in cases of phthisis.

In my private record of cases, I find two or three excellent ones which will fully illustrate the value and advantage of such a method of investigation, as well as the fact that syphilis does occasionally lie concealed under the mask of pulmonary consumption. It will be a circumstance of sincere congratulation to me if the suggestion embodied in these statements should induce any members of the profession, who have not yet taken this view of the subject, to prosecute carefully a series of observations, tending further to elucidate this important branch of medical knowledge. The magnitude and profound interest of this area of investigation cannot be overstated, involving as it does so large a number of diseases that have for ages taxed to the utmost the skill and acumen of the profession.*

* Dr. Walsh observes (*Diseases of the Lungs*, p. 431):—"I can find no positive answer to the query, 'Do these gummata ever form independently of other tertiary evidences of syphilis in the bones and cellular tissue?' If they do, their diagnosis must be infinitely

I advise every one who finds that his disease or ailment baffles the skill of his medical attendant, to search himself in his own history for hereditary or acquired syphilis. I advise him not to be deterred by false delicacy, fear, or ridicule, from such a course of investigation. The avenues by which the syphilitic taint is conveyed are so numerous, that it is often impossible to ascertain by what channel it has obtained access into the body. I now have a gentleman under my care, whom I have known for several years, in whose truthfulness I have the utmost confidence, and who has neither reason nor inclination to disguise the cause of his ailment, whose case furnishes a singular confirmation of my opinions. I mention his case here, however, to give point to the statement that it is sometimes difficult to know how the taint was acquired. In the case of this gentleman it was received by his repeatedly shaking hands with a person who suffered severely from palmar syphilis. They frequently met during the hottest portions of the summer season, when the pores of the skin were fully dilated, those of the hand especially. The contamination was evidently by absorption, without breach in the continuity of the skin. The case is remarkable, but admits of no question on my part as the observer. The effect of contamination was to produce palmar syphilis in the gentleman to whom I refer, and he is under treatment at this time.*

difficult—difficult indeed, under all circumstances; for the physical signs can be none other than those of solidification, followed by softening and excavation, while the local and general symptoms closely simulate those of phthisis."

* It is the opinion of many foreign authors, as well as Mr. Langston Parker, that the symptoms of the cutaneous disease communicated from the secondary form are often exactly the same as those of the individual who communicated it, and that there are *no primary symptoms*. Psoriasis gives psoriasis, lichen gives lichen, &c., and condylomata give rise to condylomata; just as the pus of primary syphilis produces a primary sore.

The case just cited furnishes a reason for the advice which I give to the reader, to make examination in reference to the probability of an illness being due to syphilitic taint. The patient suffering from consumption is especially urged to make himself certain on this point. If he should not be able alone to satisfy himself, a conversation with his medical adviser would probably soon dispose of the doubts that may exist.

The ordinary phenomena of phthisis, or pulmonary consumption, most people are acquainted with, such as frequent cough, nocturnal sweats, wasting away, considerable expectoration (especially in the morning), harsh and difficult breathing. There is also what is called the hectic fever, with many other symptoms, sufficiently familiar to every one. There are, however, frequently unseen circumstances, generally unknown even to the medical attendant; those significant nodules and gummata that everywhere indicate the existence of the syphilitic virus, and which are found occupying positions in the lungs, and simulating the physical signs and characteristics of phthisis.

It is well to remark here, that many persons are very often found suffering from supposed phthisis, or pulmonary consumption, who are quite at a loss for any cause in the antecedent history of their parents. These persons will generally be found to be the victims of the venereal dyscrasia, which I term syphilæmia, and which is very much easier to manage than the tuberculæmia of those having hereditary phthisis, or in whom the dyscrasia has been induced by poverty and privation. As I before remarked, the diagnosis is by no means easy, but wherever there are in any sense reasonable grounds for a presumption of taint existing, a course of treatment in harmony with such presumption will frequently be followed by the most salutary results, and at

once confirm the opinion of syphilitic complications. As a matter of course, the previous history of the patient, if it can be accurately arrived at, is the first thing to be attained; then whatever sequelæ the expert surgeon may be able to detect—and I may here observe that these sequelæ are by no means so uncommon as is generally supposed. Many people are carrying about on their persons the characteristic coppery stains, who are profoundly ignorant of their indication.

It has been propounded by high medical authority that there are many persons who suffer and die of phthisis, who would never be the victims of that fatal disorder were it not for the invasion of syphilis, which determined the hereditary or accidental pulmonary lesion. When the constitution becomes fully impregnated with the virus, the poison often attacks the tissue most disposed to give way in its interstitial structure, hence hereditary debility in the pulmonary tissue leads to the invasion of the syphilitic poison upon the lungs, in preference to any other.

The appearances after death have been distinctly confirmatory of the opinions advanced. Many of the greatest authorities and most systematic observers, amongst whom are Virchow, Wilks, Lancereaux, and Hutchinson, have pointed out that the lungs after death have presented unquestionable evidences of syphilis in the form of gummy nodules, and they are found in almost every part of the lung.* These nodules are of a peculiar character, being often roundish, greyish, or yellowish white masses, varying in size

* *The occurrence of gummatous nodules in the pulmonary substance.*—These are, in the first instance, of the same histological constitution as the well-known node of the shin, or the subcutaneous product described by Ricord, Bärensprung, Virchow, and M'Carthy. They form especially towards the periphery and basis of the lungs.—*Science and Practice of Medicine*, by W. Aitken, M.D., p. 809.

from rather less than a pea to a filbert. They are firm and cheesy, similar in consistence to what is frequently coughed up by some people singly, and may be crushed between the thumb and finger. They obstruct the portion of the lung on which they are situated, and interfere with the respiration. Sometimes they present large solid cheesy formations of a truly syphilitic kind in the lung, thus leading to degeneration, and a breaking down of the lung tissue. These phenomena are closely represented in simple pulmonary disease uncomplicated with syphilis, but I am now speaking of cases where syphilis was the undoubted origin of the lesion, and gave character to it. The nodules have been seen most unmistakably in infants as well as in adults. When the disease makes active progress, it causes what has been called syphilitic phthisis, and is marked by loss of flesh and strength, sweating, cough, pallor, occasional attacks of pleurisy, harsh breathing, and moist rhonchi (Berkeley Hill).

There is also what has been denominated *syphilitic bronchitis*,* which is peculiar in this respect, that the membrane lining the bronchial tubes is sometimes covered with a well-marked and continuous ulceration. In an advanced state of the disorder, and where the dyscrasia is serious, the ulcers, penetrating and corroding into the cellular tissue and the cartilages which form the rings, become in a serious degree destructive. The ulceration extends to the smaller branches of the bronchi, and give rise to dyspnœa, as well as to a most distressing cough, with sanious and purulent expectoration. In the autopsies which have taken place after suspected cases, the extensive and typical nature of the

* How are the cases to be distinguished? By the total want of accordance between the physical signs and the constitutional symptoms: the patient with syphilitic bronchitis has neither consolidation signs nor *à fortiori* the evidence of excavation.—*Walsh on Diseases of the Lungs*, p. 233.

ulceration has been noted, as valuable pathological evidence of syphilitic agency in this disorder. The patient will be able to recognise one symptom which is invaluable in this disease—viz., the tickling under the sternum, as well as the extreme tenderness of that bone under pressure. This last test he can himself apply, and it will commonly be a reliable indication, on which the supposition of syphilitic complication may be founded. The disease is often slow in its development and progress, and ends in emaciation and death, unless proper treatment be applied.

There could be few better illustrations of what has just been written on this subject, or on syphilitic disease of the lungs, masked by ordinary phthisis, than the one cited by Mr. Dowling, M.B., London, in an able paper read before the Medical Society of Victoria about six years ago, in which he demonstrates how distinctly visceral syphilis may simulate phthisis.

The case is that of a gentleman in England who called upon him in haste one day, having—as is usual in the advent of consumption of the lungs—spat up a small quantity of arterial blood. Auscultation furnished indications of apparently tubercular condensation of a portion of the right lung, with the usual crepitus of congestion. The patch of solidified lung was well marked, and was verified by two distinguished experts of pulmonary diseases in London.

Mr. Dowling treated his patient for some time in the usual way for phthisis, but without many of the anticipated results. His patient improved somewhat, it is true, but never became robust, or regained anything like his standard health.

Mr. Dowling determined at length to have what he terms "a thorough overhaul of his chest again." The following condition of things induced the determination:—

"The appetite failed; the pulse kept persistently too frequent; there was slight cough, more dulness of the lung, with marginal crepitation; no expectoration nor night sweats, but a gradual loss of flesh, which in about six weeks amounted to nearly two stone. He was hardly laid by, and could hardly be called able to go about, the symptoms varied so from day to day. The usual treatment for early phthisis was being carried out, and he seemed gradually wasting." Such was the position of affairs when the "overhaul" was determined on.

Mr. Dowling goes on to say:—"As the patient pulled off his shirt, I noticed a scab on the upper part of the belly. I asked him what it was, to which he answered, 'Oh, nothing; it has been there a few weeks, and began with a pimple.' He admitted it was getting slowly larger. It was about half-an-inch in diameter at the base, conical and crusted; inflamed at the edges, from which occasionally a little sanious pus exuded. To my mind it was an unmistakable patch of rupia. I inquired as to primary syphilis—to use the accustomed form of expression—and found that about three years back, and two prior to the first-spoken-of hæmoptysis, he had had a small sore on the penis, which had healed in a few days with the application of black wash, and he thought no more of it. Now, however, he admitted that a small hardness like a pea remained for some time after; none remained at this time, but some of the glands in the groin presented unmistakable remains of what Ricord calls 'the adenopathy peculiar to the infected chancre'—a painless circumscribed hardness, with perfect mobility in the tissues around. From the period which I now decided was that of infection by syphilis, I could make out none of the usual concomitants—sore throat, roseola, &c.; and now there was but this one spot of rupia, the condition of the glands in the groin, and the account of the little sore and the remaining hardness, to guide to a diagnosis.

I decided at once to commence the treatment for syphilis by mercury. . . . As the mercury began to affect the system, the appetite improved; he got stronger, and more healthy in appearance; he gained flesh, and the sore on the belly healed; the dulness on the lung lessened, the crepitus disappeared, and the cough ceased. In three months he had recovered his usual weight, and appeared well in every respect. Remembering Ricord's cautions as to giving up treatment too soon, I continued it for four months, but could not prevail on him to submit to Ricord's recommendation of six, so strong and well had he become. At this time the dulness in the lung had disappeared so far that, had I not known what had been, I should hardly have said there was any, and I hear occasionally from England now that he continues in perfectly good health."

This case is in a high degree apposite and telling, and is worthy of prominence as a representative one, furnishing as it does so conclusive an instance of syphilis under the mask of phthisis. Many more could be adduced from writers who have lent their sanction to the doctrine, by reason of cases which have come under their own observation. As is seen in the case just cited, Mr. Dowling was only directed to a correct diagnosis by the suggestive spot of rupia. Had he not seen that, he might, to all appearance, have continued the orthodox treatment for phthisis until his patient had sunk into the grave.

Syphilitic lesions in the lungs have been long ago described by Morton, Sauvage, Portal, Morgagni, and more recently by Graves, Stokes, Walshe, Wilks, Virchow, Ricord, and others. Two forms of syphilitic lesions of the lungs are recognisable. 1. Bronchitis, or bronchial irritation at least, with fever, which in many cases precedes the skin lesions, and disappears wholly or partially when this is established; and if the syphilitic eruption suddenly disappears, bronchitis may

ensue (Walshe). 2. The patient may have all the symptoms of phthisis, tubercles being absent from the lungs. The tendency of syphilis is thus to induce bronchitis and phthisis in those especially and constitutionally predisposed, and where mercury has been taken *injudiciously* (Aitken).

Mr. Chippendale, one of the house surgeons of St. Bartholomew's Hospital, London, mentions the particulars of the following instance of death from phthisis, which had just happened:—The patient was a man, aged 27, who had been repeatedly an in-patient during the last three years, suffering from various forms of tertiary symptoms. He had taken iodide of potassium most largely, and often with temporary benefit. There had been very extensive destruction of the pharynx and soft palate, and a large portion of the upper jaw had necrosed and come away. He had ulcerated nodes in several parts. His voice had for long been hoarse, and finally, in conjunction with those of pulmonary phthisis, symptoms of laryngeal ulceration manifested themselves. Under this combination he at last sank exhausted. At the autopsy the lungs were not allowed to be examined, but most extensive disease of the larynx was ascertained to exist. In an abscess on one side, a portion of loose cartilage was found.

The case furnishes us with an example of a class of cases now fortunately very small, in which constitutional syphilis resists all the usual specific remedies, or if it does not prove wholly intractable, *relapses occur so frequently*, and are of such severity, that the result practically amounts to a successful resistance.

This case is deserving of special notice for several reasons, not only because it points out clearly the severity of the disease when attacking the air passages, but that these places may be suspected to give way when the throat and pharynx are perceived to be involved. It is to be regretted that the

lungs were not examined at the autopsy, as it is but reasonable to presume that some nodules or other syphilitic deposits would have been discovered. He had nodes in several parts which came under observation; and it is much to be regretted that a case so suggestive of pulmonary syphilitic lesion should have been allowed to pass unobserved, when our literature is so barren of illustrations of that special characteristic of organic syphilis. Another point in Mr. Chippendale's report that attracts notice is the extreme virulence and intractability of the disease when it attacks the tissues now under consideration; hence persons who have a tendency to ulceration of the throat, pharynx, or air passages, ought to exercise all possible diligence to eliminate the virus from their bodies, as speedily as scientific medication will achieve it.

Aitken says :—"In tuberculous patients those tissues are apt to be involved in the syphilitic lesion, which are most prone to ulcerate and to have tubercles grow in them. Hence syphilis is often set down as a cause of phthisis. The mucous membranes are most prone to suffer in such cases. Hence syphilitic growths develop themselves in the lungs, glands, brain, pharynx, and larynx."

SYPHILITIC DISEASE OF THE LARYNX.—I have in the last chapter given a brief sketch of the mode in which syphilis invades the nose, and the neighbouring tissues, such as the mouth and pharynx: it is therefore necessary to allude to its invasion of the larynx, which also becomes involved in the general contamination, unless active curative measures are taken at an early period. The ulceration which has commenced in the neighbouring portions extends rapidly into each section of the air passages, and destroys the mucous membrane and submucous tissue; hence the larynx often suffers severely, being almost destroyed, and

the voice so altered as to be scarcely intelligible. Whenever the advanced forms of syphilis occur, and select any portion of the throat and air passages as the seat of their destructive lesion, the patient should be on the alert. It is in this region of the body that syphilis presents some of its most hideous, revolting, and pitiable characteristics, and more readily causes the system to succumb to its ravages. The premonitions of the category of symptoms just enumerated, and others allied to them, are sufficiently important to be stated, as they assume the features of ordinary catarrh, and may on that account be overlooked when they ought to be specially noted. With this inveterate catarrh, the whole mucous membrane extending from the fauces down the larynx is of a rosy hue, with congestion, and sometimes œdematous swelling of the tissues. At the same time, very minute ulcers are seen here and there, by means of the laryngoscope, which are sufficiently characteristic to determine the diagnosis.

The voice becomes husky, and there is considerable pain in the larynx, even during the act of swallowing. The patient suffers from cough, and the swelling or tumefaction of the tissues goes on to such an extent, that breathing becomes impossible, and the operation of Tracheotomy has to be performed to preserve him from death by asphyxia. It is fortunate that this terrible phase of the disease occurs but rarely, it being only in some peculiar dyscrasia that the organs now under discussion are so seriously involved; but when there is any symptom of these being attacked, every effort must be made to control it.

There is no doubt of the fact that a large number of cases of syphilitic disease of the throat and air passages have been treated for laryngeal phthisis and pulmonary consumption. There is now no excuse on the part of the practitioner for making a false diagnosis. The history of the case, together

with the use of the laryngoscope,* will place him at immense advantage in properly estimating the symptoms, and arriving at a definite opinion. Syphilis and cancer may attack the larynx, but here the laryngeal mirror will settle at once the true character of the abnormity. In syphilis the disease is generally limited to the epiglottis, the arytenoid cartilages, and the vocal cords; whilst in cancer and laryngeal phthisis, the parts involved are the cartilages of Wrisberg and Santorini.

The following are a few cases which I have selected from a large number which might be given. They are, however, sufficiently illustrative to give a faithful picture of the ravages of the disorder in this portion of the air passages.

* As so much mention is made of the laryngoscope, it will be as well to give some short sketch of its history and character. It is not a new instrument to the surgeon, although no extensive use has been made of it until lately. The laryngoscope is older than the ophthalmoscope and the stethoscope, but not by any means less valuable. The two former are useful in examining the heart and lungs, but the laryngoscope exposes to view and throws light upon the hidden recesses of the larynx. Some charlatans, with the shameful intention of imposing upon the credulous, affirm with great gravity that by means of this valuable instrument they can see into the lungs, which statement is an unqualified deception. The larynx alone can be viewed by means of the instrument, although it does sometimes occur that the entrance to one of the bronchi at the bifurcation of the larynx may be seen. The lungs are absolutely beyond any instrumental ocular observation, and can only be examined by the ear, aided by the stethoscope. The laryngoscope is at least two centuries old, and has been frequently used by eminent surgeons. It has lately burst upon the profession with great *éclat*, and now ought to be found upon the table of every consulting-room. I have used it for many years, and have found it of equal value with the best aids to diagnosis that mechanical science has furnished. Dr. Benjamin Babington may be said to be the restorer, if not the inventor, of the instrument, having introduced his improved form of it at a meeting of the Sydenham Society in March, 1829. Since then several improvements have been made, until we have at last obtained the present beautiful and perfect instrument.

CASE LI.—*Syphilitic ulceration of the larynx. Cough and expectoration. Loss of voice. Pain and difficulty in swallowing. Inability to lie down in consequence of a feeling of impending suffocation. Loss of hair. Cured.*

Mrs. R., from D., who had evidently been a fine, muscular young woman, came to Melbourne to place herself under my care. The following is the history of her malady:—Three years ago some sores appeared on her genitals, which soon healed from application of a lotion, and twelve months subsequently tubercular spots appeared on several parts of the body, which slowly ulcerated and gradually enlarged from the size of a bean to that of a five-shilling piece. Her tongue and throat also became affected with ulcers, and the symptoms continued with more or less intermission to the time when she consulted me, when the symptoms began to assume so grave a character that she became alarmed as to the result.

When I saw her first she was thin and very weak, with a frequent cough and copious expectoration. She was compelled to sleep in a semi-recumbent position, as she felt when lying down a dreadful feeling of impending suffocation. There was complete aphonia, or loss of voice. She could not swallow solid food; even fluid nourishment caused her great pain in swallowing. There were patches of syphilitic ulceration on her arms, chest, abdomen, and thighs, with well-marked nodes on the left shin-bone, which were very tender and painful, becoming worse at night, and her hair had nearly all fallen off. On looking into the mouth the fauces were found to be ulcerated, relaxed, and the membrane thickened. The tonsils bore testimony to previous ulceration. On examination with the

laryngoscope I noted the existence of an ulcer on the left vocal cord,* and another in the fold of mucous membrane,

* Frequency of Laryngeal Ulcerations in Syphilis.—Dr. Sommerbrodt, in a valuable article published in the *Wiener Med. Press*, gives the following figures:—Out of 100 *post-mortem* examinations of patients affected with secondary syphilis performed at Prague, Kuhle saw ulcerations of the larynx 15 times; whilst Altenhofer met only 25 cases among 1200 living patients. Gerhardt and Roth, on the other hand, found it 18 times in 54 syphilitic patients—viz., 11 times with 44 secondary patients, and 7 times with 12 tertiary ones. Out of 1000 syphilitic patients Lewin found 44 presenting an affection of the larynx and more or less hoarseness. Engelsted counted 25 laryngeal cases among 521 patients suffering from syphilis—viz., 14 cases among 292 men, and 11 cases in 229 women. Dr. Sommerbrodt himself collected cases for nine months at the Allerheiligen Hospital; and out of 84 patients with constitutional syphilis, 15 presented ulcerations of the larynx in different periods, and 14 had catarrhal affections with hypertrophy of the mucous membrane. These lesions seem, therefore, frequent, as already stated by Turck in his manual. Among 238 persons suffering from various laryngeal affections, says the author, 45 belonged to syphilis. Laryngeal syphilitic symptoms may occur in all the stages of the contamination. Turck, who has just been mentioned, observed it in a patient who had had primaries thirty years before; and Frankl has seen such ulcerations in a child two months old, with whom the first signs of syphilis had appeared one month after birth. The earliest time after primaries has, in Turck's time, been six months; in Sommerbrodt's, five months; and in Lewin's, from two to three months. As to the seat of the lesions, it is indicated in the following table in reference to the 92 cases:—

Epiglottis	—	21	times
True vocal cords	both 17, right 4, left 13	34	,,
False vocal cords	both 2, right 0, left 3	5	,,
Interior of larynx	superiorly 9, anteriorly 10	19	,,
Aryteno-epiglottic folds		6	,,
Upper opening		2	,,
Right pyriform sinus		1	,,
Lower portion of the larynx		4	,,

It will therefore be seen that the vocal cords *are the parts most frequently attacked, especially the left.* This circumstance should be

between the arytenoid cartilages. The epiglottis was also inflamed and ulcerated. She said she had been under medical treatment for a "galloping consumption," and the doctors told her she could not possibly recover. I recognised the disease as one of constitutional syphilis at once, and treated it as such, when the symptoms rapidly gave way. Medicines of a specific character were administered internally, and the throat and chest symptoms were treated by direct applications to the larynx, and by inhalation. The progress this poor woman made was extraordinary. She improved daily, and I was much gratified to find at the end of six months that she was completely cured of what was supposed to be a mortal disease. The perchloride of mercury, and chlorate of potassa, were the drugs inhaled in this case.

CASE LII.—*Syphilitic ulceration of the larynx and pharynx. Cough and expectoration. Loss of voice. Pain in swallowing. Difficulty of breathing. Cured.*

A young married woman, 25 years of age, presented herself at the out-patients' department of the Melbourne Hospital, in 1864, looking very ill, and evidently much emaciated. She had a distressing cough, with much mucous and bloody expectoration, and her voice was gone to a whisper. She said that about fourteen months before she came to the hospital she suffered from brownish-red coloured spots on her back and arms, for which she took a good deal of medicine, especially sarsaparilla and potash. She thought that this improved her symptoms a little for a time, when she began to cough severely, which she thought might be the effect of

recollected, as, in Rheiner's experience, tubercular ulcers are mostly situated in the *right*. This peculiarity *has a diagnostic value*. It is, in fact, towards the upper part of the larynx that the syphilitic ulcerations are found.

cold. The cough, however, persisted, together with a copious expectoration, and these symptoms were soon succeeded by difficulty of breathing, and finally complete aphonia, or loss of voice, supervened. At this stage of her disease any attempt to speak caused pain in the throat and tightness in the chest. She said she had lost a great deal of flesh, and the doctors told her she was in a consumption. I, however, examined the lungs very carefully, and could find no organic mischief going on in the lung substance. There was, however, great irritation in the bronchial tubes. Manipulation of the pharynx and larynx gave her pain, and induced cough and nausea. There was ulceration to be seen in the mouth and fauces. There were also some spots of syphilitic psoriasis on the chest and the left thigh. On applying the laryngoscope to the throat, an ulcer could be seen on the anterior half of the right vocal cord, and another on the anterior part of the right glottic regulator.* There was a rather deep ulcer on the left wall of the pharynx, which accounted for the pain in swallowing, and tenderness on pressure. This patient was cured in four months, by specific constitutional treatment. The voice was restored, and the swallowing made easy, by means of the laryngeal spray containing permanganate of potash; and an ointment containing the red iodide of mercury with camphor was applied externally over the larynx, thereby keeping up steady counter irritation.

I give the following case, from the *Medical Times and Gazette*, as a joint illustration of the disease now under dis-

* Gerard and Roth (*Arch. für Path. Anat.*, Bd. xxi., Heft 1) state "that in 8 out of 54 cases of secondary syphilis, under observation in Würsburg Hospital, the hoarseness was produced by mucous patches of the larynx, which could be distinctly seen by the aid of the laryngoscope."

cussion. It was communicated by Dr. Morell Mackenzie, the patient being under the care of Dr. Davies:—

CASE LIII.—*Syphilitic ulceration of the larynx, treated with the aid of the laryngoscope.*

"Emily W., a labourer's wife, aged 30, was admitted into Charlotte Ward on 25th February, 1862. She was much emaciated, and altogether in a very feeble condition. The patient denied ever having had syphilis, but on inquiry it appeared that she had had two miscarriages, and that her only child died shortly after birth with a skin eruption. She had lately noticed that her hair came off very much, and she had frequently suffered from severe ulcerated sore throat. It thus appeared that, though unaware of, or not choosing to admit it, the patient must, at some time or other, have been affected with the venereal disease.

"She was when admitted in a very prostrate state, and, besides being very weak, she had excruciating pains in the shin-bones, which were especially agonising at night. Nodes could be felt over the right tibia, and the superficial surface of the left bone was highly irregular. She had a frequent cough, and expectorated very abundantly. She was unable to swallow solids, and even fluids could only be taken in small quantities, and frequently gave rise to immediate vomiting. The voice was feeble, and of a decided nasal tone. The tonsils bore the scars of former ulceration, and one of them had to a great extent disappeared. On examining this patient with the laryngoscope, a white-margined oval ulcer, about the size of a pea, was seen in the fold of mucous membrane intervening between the arytenoid cartilages, and another ulcer of similar appearance on the true right vocal cord. A large quantity of secretion was hanging about the larynx, and it was not till

after repeated coughing that a proper inspection could be made. The patient was ordered milk diet, strong broth, and a small quantity of brandy, copiously diluted.

"February 28.—With Dr. Davies' sanction, I touched the ulcers in the larynx with a strong solution of Arg Nit, and the white eschars left by the application of the caustic were evident to several gentlemen, who were present on the occasion.

"March 4.—Condition of patient still very low. A laryngoscopic examination showed that the ulcer in the vocal cord had almost disappeared, but that the other had spread over the mucous membrane, covering the right arytenoid cartilage. Another topical application was made, which produced vomiting.

"March 7.—One ulcer (viz., that in the vocal cord) was healed, whilst the other was much smaller, especially at the original seat. On the 27th the ulcers were quite healed up, and a slight depression over the right arytenoid cartilage, with two small whitish radiating lines, was the only evidence of the former ulceration. The ulcer on the vocal cord had healed without leaving any cicatrix. The patient's strength gradually improved; the voice, though not very strong, became quite clear; the laryngeal symptoms entirely disappeared, and the patient was discharged 'cured' on 8th April.

"Remarks.—The great improvement in therapeutics which this 'holding up the mirror' to the larynx had effected, impressed itself on the mind of everybody who had an opportunity of watching this case. In chronic affections of the larynx, with a little practice, particular spots can be touched with facility; and, guided by the laryngeal mirror, it is remarkable how easily we can in our applications 'suit the action' to the condition of the larynx. The two points of especial interest in this case are—first, the

great tendency to vomiting; and, secondly, the nasal *timbre* of the voice."

CASE LIV.—*Loss of voice from ulceration of the regulators of the glottis and the vocal cords. Cured.*

This patient, a man about 32 years of age, called to consult me on the 20th February, 1869, and on interrogating him I found that he could only articulate in a whisper, and that even this exertion gave him great pain. He had a slight cough, but little or no expectoration. He informed me that his cough had been very severe for some time, but was then much less troublesome, as he had been using opiates to quiet it; also that the reason for his resort to such measures was the impossibility of obtaining sleep because of the increased severity of the cough at night. He was much emaciated, owing to his inability to swallow solids, and the pain that the act of deglutition produced. He had been subjected to very severe caustic applications, which seemed to have produced general irritation of the surrounding tissues, without having in any degree ameliorated the more trying symptoms.

I discovered very soon that there was a probability of this being a syphilitic lesion, and sought for the confirmation of this opinion in the patient's history. He informed me that four years ago he had both gonorrhœa and chancre, which were said to be cured by injections and lotions. During the last year he had suffered much from irritation of the skin and lichenous eruptions, of which there were still traces on the legs. He had during that time been especially subject to catarrh and a cough, which he had been given to understand was bronchitis. On examination with the laryngoscope I found the vocal cords ulcerated, and the regulars of the glottis also had several ulcers on them, and

a certain amount of œdema was perceptible. The pharynx also was involved in the general ulceration. By specific anti-syphilitic treatment, and the frequent use of laryngeal sprays, and a generous diet, the patient was cured in three months.

CASE LV.—*Aphonia for nine months, owing to the existence of ulcerations on both the vocal cords. Ulceration of the pharynx and tongue. Cured.*

G. F. W., aged 26, arrived in Melbourne from the country in June, 1868, having, as he thought, lost his voice from a cold caught while in a low state of health. He had not been well, he said, for nearly a year and a half. He had a tickling, distressing, and painful cough, which was very troublesome at night. His rest being so broken, he had become thin, careworn, and desponding. He could only be heard in a whisper, and the effort to speak was painful. Examination of the thorax by percussion and auscultation gave no apparent indication of abnormity. I at once concluded that the disease was in the larynx itself. On examination by the laryngoscope, I discovered extensive syphilitic ulceration of the vocal cords, three on one side and five on the other, the principal one being close to the arytenoid cartilage. The regulators of the glottis were slightly swollen, or œdematous. The pharynx also was ulcerated, the ulcers having precisely the same syphilitic characteristic as those of the vocal cords. On further interrogating the patient, I found that he had contracted syphilis about five years previously, and had chancre, which was speedily healed by local applications. Subsequently he suffered from a skin disease, from which I found here and there small cicatrices. The diagnosis I arrived at was that of syphilis, involving the air passages. The usual specific treatment, together with the laryngeal spray of ammon

hydrochlor. and hydrarg perchlorid., cured the patient in about two months.

Syphilitic disease of the larynx manifests itself in two forms—(1) the secondary or superficial, and (2) the tertiary or deep-seated. The first class does not extend beyond the mucous membrane. The second or deep-seated variety commence first in the mucous membrane, and thence penetrate to the cellular tissue beneath, or they may commence in the deeper-seated structures, such as softening down of the syphilitic gummata. In syphilitic ulceration, the epiglottis is the part most frequently affected. The true and false vocal cords are also affected by destructive ulceration. The arytenoid cartilages may also become carious, and if they become detached, they may give rise to the most urgent and alarming symptoms.

The symptoms vary in intensity from a slight hoarseness to complete loss of voice. Sometimes there is a slight dyspnœa, and at other times the breathing may be of the most distressing character, threatening, as it were, speedy suffocation. In syphilitic laryngeal disease, local as well as constitutional treatment is imperatively demanded, and the relief afforded by medicated inhalation is of the most satisfactory kind. On the subject of laryngeal disease of a specific character, Mr. Durham thus expresses himself :—

"It is well to bear in mind, therefore, that in such cases dyspnœa of the most dangerous character may supervene suddenly, and almost without warning. Indeed, it may be asserted that patients suffering from severe tertiary affections of the larynx require the most careful watching, for danger may arise at any moment. In some cases there is difficulty in swallowing, and often more difficulty in swallowing fluids than solids. The former (on account of the condition of the epiglottis) are more liable than the latter

to 'go down the wrong way.' But the slight degree of difficulty, and the absence of all pain in swallowing, sometimes observed in certain exceptional cases of this kind, in which the epiglottis has been even extensively destroyed, are very remarkable.

"The *course and duration* of these tertiary affections of the larynx, as may be readily understood, vary greatly. In some cases, under appropriate treatment, cicatrisation may take place; but in such it constantly happens that very serious deformities of the parts result either from the loss of substance, or from the subsequent contraction of the cicatrices that may have occurred. The voice is, as a rule, permanently impaired; and breathing and swallowing may be rendered more or less difficult. Attacks of acute laryngitis, attended by more or less spasm, are liable to be excited by comparatively slight causes, and may lead to a fatal result if timely relief is not afforded, or if the safety of the patient has not been previously secured by the performance of tracheotomy.

"The *general diagnosis* of syphilitic affections of the larynx is not often difficult. The history of the case, and the presence of the syphilitic cachexia, together with the coexistence of some more unmistakeable signs or symptoms (such as ulcers or cicatrices about the palate and fauces, cutaneous eruptions, nodes on the tibiæ, &c.), generally serve to indicate the nature of the malady.

"But beyond the general indications afforded by the history of the case, and by the presence or absence of other local affections of syphilitic origin, certain special indications may be obtained, and the diagnosis may often be clearly established, by aid of the laryngoscope.

"The dusky hue and patchy appearance of syphilitic erythema of the larynx differ notably from the bright diffused redness of simple catarrhal inflammation; and the

papules, flattened tubercular elevations of surface, and condylomata of syphilis, can hardly be mistaken for the enlarged mucous follicles of glandular laryngitis—still less for the dotted, granular appearances presented in the earlier stages of laryngeal phthisis. There may, however, be considerable difficulty in distinguishing between a syphilitic tubercle or condyloma beginning to ulcerate, and a small epithelioma, especially if situated on the posterior wall of the larynx. Such difficulty has arisen in more than one instance under my observation. In any doubtful case it is well to try the experiment of 'specific' treatment before expressing any decided opinion. Anti-syphilitic remedies and local treatment will almost certainly effect a cure in the one case; and in the other, though necessarily useless, they cannot do any great amount of harm.

"The deep and extensive ulceration of the more advanced stages of syphilitic disease of the larynx not only gives rise to symptoms, but on laryngoscopical inspection may present appearances, which more or less closely resemble those of phthisical disease on the one hand, and epithelioma on the other. It may not be easy, but it is always important, to determine accurately the nature of the malady, as well as the extent of the mischief. For, as need scarcely be stated, the treatment which is requisite and likely to prove more or less successful in cases of syphilitic origin, might be absolutely injurious in those associated with phthisis, and altogether useless, or perhaps worse than useless, in epitheliomatous disease. The prognosis also must obviously depend in great measure upon the satisfactory determination of the origin of the local affection.

"The chief distinctive features presented by syphilitic, phthisical, and epitheliomatous ulcération of the larynx, may be stated as follows.

"*Syphilitic ulceration* usually attacks the epiglottis first.

It extends rapidly, and is emphatically destructive in its progress. It involves the submucous tissues at a comparatively early period; and thus the whole thickness of the epiglottis may speedily become perforated, or some other part of the larynx may suffer corresponding destruction of substance. It is not, as a rule, surrounded by any marked or extensive thickening; but its edges are often more or less swollen and red. Such apparent or real thickening as there may be generally attends rather than precedes the ulcerative process. The accompanying expectoration is thick, tenacious, and yellow or yellowish-green in colour."*

SYPHILITIC DISEASE OF THE NOSE.—The nose is especially subject to invasion during secondary and tertiary syphilis, and is very frequently the seat of herpetic and vesicular eruption. By reference to the plates, it will be seen what form the disease commonly assumes, although it is often to be seen in a less degree, as well as in a more destructive one. The earlier attacks, or those which accompany the simpler syphilides, are not very difficult to deal with, nor are they dangerous, generally passing away readily under simple treatment, and leaving no indication of their having existed. In the later forms of invasion, however, there is a much more serious set of phenomena. The bones and cartilages of the nose are destroyed, and the upper portion of the organ falls in, giving to the countenance a repulsive aspect. Sometimes the ulceration breaks through the integuments, eating away the whole of the organ, and thus destroying for ever all hope of its restoration.

The diseases of the nose, of a syphilitic character, are of secondary and tertiary development; those of the former are confined to the skin and mucous membrane, whilst the

*A *System of Surgery*, by various authors, vol. iv., pp. 561, 562.

latter cause destruction of the bones and cartilages. The diagnosis of syphilitic disease of the nose is comparatively easy. The general aspect of the patient, together with the existence of other symptoms indicative of the venereal cachexia, will soon settle the matter beyond a doubt, and specific treatment must be unhesitatingly commenced. The nostrils must be frequently washed out with medicated water, by means of an indiarubber syringe, with pipe and rose-nozzle attached. Vapour baths, and fresh air, should be freely taken. The following is a case of syphilitic coryza, or secondary syphilitic congestion and ulceration of the lining membrane of the nose.

Case LVI.—*Syphilitic Coryza. Cured.*

I was consulted last year by a gentleman from China, who complained of a constant desire to blow his nose, the secretion from which was of a yellowish-green colour, and tinged with blood. He complained of a pain in the forehead, with a sense of uneasiness and tenderness in the nostrils. On examining the nasal passages with the rhinoscope, the mucous membrane was found to be considerably congested, of a deep red colour, and there was erosion of its surface here and there. He said he had suffered from chancres two years before, followed by secondary symptoms, which attacked his nose. When the discharge first appeared it was of a clear, starchy character, and always became thicker if he indulged too freely in stimulants. He also suffered from recurrent ulceration of the lips and tongue. He was at once placed under the influence of mercury, chlorate of potassa (to prevent salivation), hydrochloric acid, with cinchona; the nostrils were syringed with a weak solution of chloride of zinc in rose water during the day, and at night they were filled with an ointment

composed of oxide of zinc, calomel, acetate of lead, and glycerine; together with the use of a Turkish bath every second day. In a short time his nose was quite well, but I continued specific treatment for six months.

The reader will notice the following case of the kind, which occurred in the Melbourne Hospital, where the patient was restored to health, but with the complete loss of his nose.

CASE LVII.—*Tertiary Syphilis. Tuberculous destruction of nose. Emaciation. Nodes on both legs. Deep fissures on hands. Deep ulcer in back of throat. Cured.*

Soon after my connection with the Melbourne Hospital, I was requested by the late Dr. Stewart to admit into one of my beds a patient of his who was suffering from one of the worst forms of tertiary syphilis, and on whom he had exhausted all his resources. He stated that "he could do nothing for him, and that he wished to get him out of hand, as he was quite convinced that his case was utterly hopeless; in fact, that all that could be done for the patient was to put him into bed, and in charity let him die as comfortably as possible." I wrote to the house surgeon requesting that he might be admitted, and visited him at 3 p.m. the same day.

He was one of the most pitiable objects that ever entered the wards of any hospital, apparently irretrievably prostrate before the consuming ravages of a fell disease, that had fixed on every tissue. He was extremely emaciated, with tuberculous copper-coloured spots, distributed all over the body. His hair was nearly all gone. Large bony projections or nodes appeared on the shins of both legs, and deep fissures existed on the palms of the hands and the bends of the

fingers. There was an ulcer on the back of the throat, of such a depth as almost to expose the bones of the neck. The uvula was completely destroyed, and the hard palate eaten out. The stench from him was of the most horrible and offensive character, so bad, indeed, that the wardsman never approached him save when it was absolutely necessary. The whole of the soft structures of the nose were destroyed, and the corroding ulceration extended over the cheek, threatening to invade the ears. He was slightly deaf, with loud noises in the ears, and required very strong sedatives to procure a night's rest. It would be scarcely possible to find a case which should offer so little hope of recovery as this one, so prostrate did the patient seem under the dreadful force of the disorder. Still I determined to put to the test the best methods that science has recently directed, and raise this hitherto hopeless patient, if possible, from a state worse than death. Under the most assiduous care, and aided by the untiring efforts of Mr. Horne, the then resident dresser —who carried out my instructions to the letter—the patient soon manifested signs of improvement, and I am happy in having to record that the treatment was brought to a successful termination by his restoration to health. I had intended to give him a new nose by the art of Rhino-plasty, either from the forehead or arm; but having suffered so much, he postponed indefinitely any further surgical aid. He, however, got an artificial nose, and eventually occupied a situation as clerk in a merchant's office in Melbourne.

I may here remark, that the iodide of potassium, although given in large doses, caused not the slightest amelioration of the symptoms; but when it was combined with the perchloride of mercury, and carbonate of ammonia, its beneficial effects were most rapidly made apparent. The diseased surface was brushed over first with the acid nitrate of mercury, followed by the constant application of a lotion

composed of oxide of zinc, acetate of lead, glycerine, and distilled water.

The following formidable case of syphilitic destruction of the tissues of the nose and the neighbouring structures, taken from the *Medical Times and Gazette*, is corroborative as to the serious inroads sometimes made by the syphilitic virus.

CASE LVIII.—*Hernia of the mucous membrane of the nose, the result of syphilitic ulceration of the os frontis, or frontal bone.* By Dr. Rizet.

"The patient presented an opening near the median line, just above the left eyebrow, through which at nearly each respiration a small tumour appeared, which was easily reduced, and the beating of which closely resembled that of the brain. To the touch the tumour gave the sensation of hernia of a membrane through a bony opening. From these appearances the first impression was that it was a case of cerebral hernia.

"The history of the case was, that a year before he had, while suffering from secondary syphilis, severe pain in the head, with fever, followed by swelling of the forehead and eyelids. A small abscess formed, which was opened; the pain in the head then diminished, and the opening closed. A month later, swelling again appeared in the place where the abscess had existed, but without pain. This place opened, and sanious fluid escaped. To check this, iodine was injected, and it was found to escape by the nose. Soon after this he had aggravation of the secondary symptoms, sore throat, and syphilitic eruption of the skin. He had previously taken iodide of potassium, and used sea-bathing, without any material benefit. Some months later, when blowing his nose, a piece of dead bone escaped, and for

several weeks blood in small quantities was discharged. By means of a piece of lead, he was enabled to keep the membrane from protruding."

It is unfortunate that the treatment in this case is not given; as the report says, he took iodide of potassium without deriving any benefit therefrom, but no mention is made of what medicine was given.

CASE LIX.—*Syphilitic ulceration of the lining membrane of the nose. Bone diseased. Offensive discharge. Ulceration of palate. Cured.*

A gentleman from Parramatta, New South Wales, consulted me in December last, complaining of great soreness within the nostrils, together with an offensive discharge therefrom. He stated that he had contracted syphilis about four years ago, for which he was treated. Two years later he suffered from ulceration of the tonsils, together with copper-coloured eruptions all over the body. The mercurial vapour bath was at that time prescribed, and the throat was cauterised. The symptoms disappearing, he thought he was cured, until about ten months prior to his visiting me, when an ulcer appeared on the soft palate. Simultaneously his nose became sore, tender, and swollen, and latterly a discharge set in, which was so extremely offensive, that his friends told him they observed it whenever they sat in the same room with him. When I saw him his nose was red, swollen, and hard, and his breath was very offensive. On examining the cavity of the nose with a speculum, there were several small ulcers on the mucous membrane. The bones of the nose were exposed and ulcerated, from which the offensive discharge ran. There was also a large ulcer about the size of a shilling on the palate. He was thin, emaciated, and complained of great tenderness when I

pressed the sternum. He also had nodes on the shins. This patient was cured in five months by antisyphilitic treatment.*

CASE LX.—*Syphilitic ulceration of the lining membrane of the nose. Destruction of nasal bones. Falling in of the organ, causing great deformity. Cured.*

A fine-built young man of 30 years of age called upon me in 1865, suffering from extensive disease of the nose, and falling off of the hair. He also had deafness of the left ear. He appeared very desponding; had lost his appetite, and could not sleep at night. He stated that seven and a-half years ago he suffered from Hunterian chancre, and bubo of the left groin. He was under medical treatment, but before the induration left by the chancre had passed away, his tongue, lips, and anus became ulcerated, and copper-coloured spots appeared on the chest and abdomen. After undergoing a long course of medical treatment, he was pronounced by his attendant cured.

Three years ago he felt his nose very uncomfortable, an itching sensation being always present, and a feeling of fulness in the organ. These symptoms persisted so long, and the nose became so painful, that he could not blow it; in fact, he could scarcely touch it with his hand. On application then to a medical man, he was informed that "his ailment was simply a common cold, and that it would soon pass away." The symptoms gradually became worse; ulcers attacked the nasal cavity, accompanied with great pain in the forehead, followed by a discharge like bloody water from the nostrils, which gradually became thicker and most offen-

* One of the worst forms of ulcerative inflammation of the mucous membrane is syphilitic rhinitis, an affection the more serious, as it is often overlooked, and its existence not recognised until it has committed irreparable ravages.—*Lancereaux*, p. 103.

sive. For these symptoms he had undergone several kinds of treatment without any benefit, and latterly small pieces of bone came away, and his nose began to flatten. When seen by me this feature presented the appearance of being broken. On examining the cavity of the nostril with the speculum, the whole of the lining membrane was ulcerated, and I removed several pieces of loose bone with the forceps. By injecting the nostrils twice a day with permanganate of potash, filling them at bed-time with ointment of zinc, mercury, and lead, and a careful course of constitutional and specific treatment, I dismissed him cured in little over four months.

"A very common form of attack is syphilitic ozena, which continues so long as the ulceration of the periosteum and mucous membrane goes on. While it is in progress, the voice becomes thick and nasal, and the patient is much plagued by the foul odour he bears about with him. If the disease is not checked in time, the whole of the bones of the nose are destroyed and removed, the bridge and soft parts sink in, till a hollow replaces the natural prominence of the part. The periostitis and osteitis extend downwards towards the mouth, and upwards through the spongy bones of the base of the skull, to the hard palate and the bones above it. In time, the nose, mouth, and pharynx become one cavity, lined—when cicatrisation is reached—by a greyish tough membrane, the thin secretion of which readily dries into painful crusts. By this destruction the sense of smell is lost, and to a great extent that of taste also. In these patients the yellowish pallor of the countenance is well marked, which, with some history of previous syphilis, is often the sole evidence of the origin of the disease. Now and then a patch of serpiginous ulcer may co-exist on the skin."*

* Berkeley Hill.

It has happened to me to attend a very large number of cases of the so-called ozena as described in the text books, and I believe that in the majority of these cases the symptoms may all be traced to syphilis, hereditarily transmitted, as the largest number of cases are found amongst young people.

Death of the nasal bones occurs also in hereditary syphilis. It is sometimes seen in infants, but is more common in later childhood, at the time that the eyes and teeth are attacked.

Erichsen, the celebrated surgeon and writer on *The Science and Art of Surgery,* gives the following description of the invasion of the nasal tissues by the venereal virus:—"The nose is commonly affected in constitutional syphilis, and often destructively, especially in individuals much exposed to changes of temperature, and who are unable to pay proper attention to their treatment. There is intolerable itching of the nose. The mucous membrane becomes chronically thickened with discharge of blood and pus, coryza, and habitual snuffling. In other cases ulceration takes place, with fetid odour of the breath, and the formation of ecthymatous crusts on the septum, between that and the alæ. This ulceration is of a very persistent and troublesome character. In many cases the ulceration will proceed to the destruction and perforation of the septum, or necrosis of the spongy bone, the vomer and ethmoid—sometimes excavating the nose, and clearing it out into one large chasm! When this happens the nasal bones are unusually implicated, being flattened, broken down, and destroyed, the alæ and columns ulcerating away, and producing vast disfigurement. Occasionally the disease extends to the bones at the base of the skull, and in this way may occasion amaurosis, epilepsy, or death."*

* Erichsen's *Science and Art of Surgery.*

CHAPTER VI.

Syphilitic Diseases of the Digestive Organs.

S. DISEASE OF THE TONGUE.—This serious invasion by the venereal poison deserves especial notice on account of its frequency, its inconvenience, and its threatening character. It is generally associated with some other form of the syphilides, and even with chancre, bubo, or tubercular ulceration of the genitals. All parts of the tongue are liable to be the seat of ulceration, though the base and sides are seen to be the most frequently attacked. The ulcers are also deep and indurated, with greyish borders, and are preceded by small, hard, red, and painful tubercles, which soon ulcerate. There is generally little suppuration. Every movement of the tongue is painful in the extreme, and when the ulceration is at the base of the tongue, as is very often the case, the act of swallowing is one of great difficulty. In some cases the ulcers are deep, and as it were chiselled or sharp at the edges, with a grey base, and sometimes discharging a sanious and acrid fluid; at other times they proceed to a more destructive condition. Frequently the tubercles are seen in hard red lumps upon the tongue, being very sore, and causing great inconvenience, but do not proceed to severe ulceration, some of them being covered merely with a thick and tenacious mucus. It does however sometimes happen that the disease takes on an aggravated form, so severe indeed that it is mistaken for cancer, and many cases of supposed cancer I have cured by anti-

syphilitic treatment alone. This alarming state of ulceration is sometimes arrested by applications that are not specific, but they only mask the real disease, putting it out of sight temporarily, to break out hereafter with redoubled force. By the use of suitable specific remedies, and careful hygienic measures, the virus which is the active cause of such serious lesions may be kept so far in check as to be absolutely inert, and even eradicated finally from the system. I find in my record of venereal patients several persons who, after having been treated some years ago for very severe ulceration of the tongue, have not again been attacked; one especially, where the entire destruction of the left half of the organ was threatened, but which after nearly three months' careful treatment was effectually averted, and the tongue restored to its normal condition. This patient has not had a return of the ulceration of the tongue, nor that of the scrotum, which existed during the invasion of the tongue. I have frequent opportunities of seeing him, and know that his health has been uninterrupted since the course of treatment I refer to.

The tongue sometimes presents, when invaded by syphilis, a very peculiar appearance, which cannot be better described than in the language of Mr. Erichsen,* the eminent surgeon. "It has a semi-transparent or gelatinous appearance, which gives the organ a thick and misshapen look. In other instances the epithelium is dry, white, and opaque in patches, the surface of the tongue looking as if it had been dyed white here and there. Occasionally ulcers form upon its surface and sides; these are usually irregular in shape, with a foul surface, and a good deal of surrounding induration, and unless care be taken may be readily confounded with scirrhus or epithelial cancer of the organ. Occasionally a hard, elevated,

* *Science and Art of Surgery.*

circumscribed tumour, of a dark red or purplish colour, slowly forms towards the centre of the organ; it increases without pain, and in a gradual manner, and principally occasions inconvenience by its bulk, and the impediment it presents to the movement of the tongue." Sometimes there are distinct circular spots with red centres and pale borders, as though the covering of the tongue had been cut out by a punch.

Syphilitic disease of the tongue is of four kinds:—(1) The superficial ulcer, (2) the syphilitic nodular growth without ulceration, (3) the ulcerated nodule, and (4) fissures and milk-white stains. The superficial ulcers generally manifest themselves on the side of the tongue. They are hard; stimulating food or drink is painful to them; they have an excoriated or punched-out appearance, and are often covered with a dirty-yellow secretion.

The nodular tubercle resembles a Spanish nut or plum-stone, situated deeply in the centre of the organ. They often ulcerate, and disclose a sloughing sore. They are usually unattended with pain until ulceration commences, when the pain is acute. The tongue presents the appearance of schirrus of the organ, but a syphilitic history will clear off all doubts as to the diagnosis. Fissures and milk-white stains usually occur on the dorsum of the tongue, and are invariably of syphilitic origin.

On this point Dr. Reynolds observes (*System of Medicine*, vol. I., p. 204):—"Some forms of syphilitic induration of the tongue are exceedingly difficult to distinguish from cancer. They are very hard, have well-defined edges, are painful, and when they ulcerate present an unhealthy surface. Iodide of potassium in full doses will usually, in the course of a week or ten days, clear up the diagnosis." The best local application I have found in these cases is a saturated solution of perchloride of mercury with hydrochloric acid,

and alcohol. It should be freely applied over the tongue, and the mouth should be well washed out first with water, and then with glycerine. Internally, after correcting the digestive organs, I have always relied upon large doses of the iodide of potassium, in combination with the citrate of iron, and arsenic. Turkish and sea baths are of great use in keeping the skin healthy, and a liberal diet should be allowed, with exercise in the fresh air. Whilst the tongue is sore and painful, the diet should consist of strong, nutritious broths, jellies, eggs beaten up with milk, soft nutritious puddings, and a bottle of claret daily. The following case is one of many I have notes of, and, as it will be seen, was treated for cancer of the tongue, but soon yielded to specific treatment.

CASE LXI.—*Syphilitic ulceration of the tongue. Cured.*

H. R. K., from Queensland, consulted me in December, 1870, for what he called a cancer of the tongue. He said he had been under medical treatment for some time, when he was told that his case was incurable. He then came to Melbourne to see if his tongue could be removed. When I first looked at the organ, I thought, too, it was decidedly malignant; but on further questioning him as to his previous health and habits, I learned that about three years ago he contracted an indurated chancre, followed by bubo of the groin, syphilitic iritis, and ulceration of the tonsils. With this history I had no doubt as to its nature. On the right side of the tongue was an excavated ulcer. I painted the tongue with a saturated solution of corrosive sublimate, and gave him a mixture containing the iodide of potassium, iron, and arsenic, and a vapour bath every day. He was allowed strong soups, broths, jellies, oysters, milk, soft puddings, and an allowance of good claret. Under this treatment his

recovery was rapid. I then prescribed the syrup of the iodide of iron, and sea-bathing.

Mr. Acton refers to the differential diagnostication of syphilis and cancer of the tongue, in the following terms:—"The tubercles in the substance of the tongue may be, and have been, mistaken for cancer of that organ. The following indications may assist the young practitioner in his diagnosis. Previous to ulceration of the tubercles, I have noticed that the *number* and *position* of the indurated points are different in the two affections. Thus in cancer there is usually but one, in syphilis there are several. In cancer the disease is seated at the side of the tongue, close to the teeth, about opposite the first molar. In syphilis it is the dorsum of the tongue which is generally affected.

"When the affection takes on an ulcerative character, the characteristic features of the two complaints become more marked. In syphilitic affections, the ulceration is covered with a dirty, foul secretion, and the glands in the neck are but slightly swollen. In cancerous affections the ulcers are clean and florid, looking as if they were about to throw out healthy granulations; yet weeks and months go on, and no restorative process is set up, and the glands in the neighbourhood become of that stony hardness so peculiar to cancer. I have been able to place but little confidence in the general appearance of the patient, for in both affections a yellow cadaverous look is met with.

"The cautious surgeon will, however, not hastily give an opinion until he has commenced the treatment. This is the best means of diagnosis, for I need not say that the one can be only palliated. Happily surgery can triumph over the other."*

* *On the Urinary and Generative Organs*, p. 493.

S. DISEASES OF THE MOUTH AND THROAT.—Syphilitic diseases of the throat are divided into (1) secondary and (2) tertiary, and may appear on the gums, lips, mouth, tonsils, tongue, uvula and pharynx. Mucous papules or tubercles and superficial ulcers belong to the secondary, whilst submucous or tubercular ulcers are classed amongst the tertiary manifestations of the disease.*

Mucous tubercles usually commence with redness of the mucous membrane; the epithelium softens, and, becoming disintegrated, leaves an eroded, projecting, and granular surface, which is found to be covered with a thick whitish secretion. Sometimes these papules are isolated at first, and by coalescing form large patches.

* When the mouth or throat presents the superficial excoriated condition of the mucous membrane, which ultimately becomes extensively, but not deeply ulcerated; when this character has been preceded by a chancre for some two or three months, and is attended with the scaly or tubercular papular eruption, together with condylomata on the scrotum or vulva, and little impairment of the general health—the surgeon will not, I should think, have much difficulty in distinguishing this as a syphilitic affection, and will justly style it the *secondary* form of sore throat. If, on the other hand, the disease, commencing in the submucous cellular tissue, periosteum, or bony structure, ultimately destroys the mucous membrane of the mouth or throat, giving rise to a deep, excavated, tawny ulceration, or if tubercles form in the substance of the tongue, which cause rents and ugly transverse fissures in that organ; if, moreover, some two years have elapsed since the occurrence of the primary sores; and if, together with the above symptoms, rupia and ill-conditioned sores occur on the extremities, together with an impaired condition of the general health, the practitioner will be in no doubt as to the nature of such an affection, and recognise it as a *tertiary* syphilitic affection. The diagnosis between this form of tertiary syphilitic affection of the throat and scrofulous or scorbutic affections is not, however, so easy. The history of the case proves little; the present appearance of the sore throat affords only slight indications, and we must be guided by the circumstances of each individual case, as no general rules can be laid down.—*On the Urinary and Generative Organs*, by W. Acton, M.R.C.S.

All mucous membranes are liable to syphilitic invasions, but the lining membrane of the mouth, lips, and throat seems to be the favourite *locale* for its especial manifestation. The premonitory symptoms of venereal sore throat so closely simulate those of a more specific character, from its general redness, that the surgeon must be guarded in giving expression to an opinion at this the initial stage of the disease. This uniform redness, however, will soon become subdivided into prominent red circles, the centres of which become pale. These circles may gradually extend until they assume the size of a sixpence. The circular patches may coalesce, and then they present an irregular patch of whitened epithelium, which much resembles the hands of a washerwoman. When ulceration takes place, the peculiar whitened appearance is destroyed; the sore becomes deeper and increases in circumference; ultimately it may assume a gangrenous condition, and thus give rise to most alarming symptoms.

These ulcers are usually formed on the tonsils, palate, lips, the under surface of the tongue near the frænum, the sides and dorsum of the tongue. On the latter situation it gives the organ a bald appearance, from the destruction of a portion of its epithelium.

CAUSES.—In the adult it will be found that indurated chancre, with or without bubo, has pre-existed, giving rise by blood contamination to syphilæmia, or the so-called venereal diathesis. In the infant it will be found that the mother has transmitted the disease to her offspring during the period of intra-uterine life. Such then are the immediate causes of this affection, and it only awaits some predisposing influence, as want of sufficient and proper food, exposure, fatigue, working in wet ground, severe cold, excessive drinking, &c., to enable it to assert its destructive power upon the tissues under consideration.

The child at the breast, persons who use tobacco pipes,

and musicians who play upon wind instruments, are also predisposed to ulceration of the mouth, should a syphilitic taint be lurking in the system.

Pain and difficulty in swallowing (especially hard substances) are amongst the earlier symptoms of syphilitic throat affections. On examination with the throat speculum, a slight redness of the fauces only may be observed, in fact presenting the appearance of an ordinary sore throat. If these symptoms do not readily subside, they will be followed by the whitened epithelium before alluded to. The tonsils frequently become so much enlarged as to obstruct the entrance of air into the lungs, and thereby give rise to great difficulty in breathing. They may also become full of fissures or cracks, and cause great pain during the act of swallowing. The patient's voice may also become husky, complete aphonia may supervene, and as the eustachian tubes are frequently more or less implicated, deafness may follow.

CASE LXII.—*Pustular Syphilide. Body covered with the eruption. Mucous tubercles of the lips, tonsils, and palate. Ulceration on sides of the tongue. Condylomata of the arms and groin. Cured.*

H. T., from Queensland, consulted me in 1870, with the following history:—Eight months prior to my seeing him he contracted an indurated chancre, which was speedily followed by bubo, syphilitic fever, roseola on the skin, and sore throat. He placed himself under the care of a medical man, and he improved considerably; latterly, however, he became much worse, and his adviser told him he had better go to Melbourne and consult me. When I first saw him he was pale and emaciated, with a very feeble pulse, and loss of appetite. He was covered all over the body with a pustular

syphilide, and his hair had nearly all fallen off. His lips, tongue, tonsils, uvula, and velum palati, were nearly covered with large mucous tubercles. He suffered from condylomatous growths at the anus, and in the groin. He had pains in the muscles and in the joints, which became so much worse at night that he could not sleep. The act of swallowing also gave him great pain. I touched the mucous growths with a strong solution of perchloride of mercury, hydrochlorate of ammonia, and alcohol; and to the anus and groin I applied an ointment composed of subchloride of mercury and oxide of zinc. Internally, I gave him a mixture containing potass chlorat, acid hydrochloric dilut, hydrarg perchlorid, liquor cinchonæ, and infusion of orange-peel. Every third day he took a bath, containing corrosive sublimate and muriate of ammonia. He was also allowed a good nourishing diet, with claret for breakfast and dinner. He was allowed oranges, and other ripe fruit, with warm clothing and fresh air. In a month all outward signs of the disease had disappeared. I then put him on potass iodid, ferri citrat, liq arsenicalis, and sarsaparilla; and lastly I gave him the syrup ferri iodid, with bottled stout, and sea-bathing. Before he left Melbourne he had gained nearly a stone and a half in weight, and he has remained well ever since, and writes of getting married.

Tertiary tubercular ulceration of the throat cannot be mistaken, when once it has been carefully observed. There is considerable redness and swelling of a limited portion of the mucous membrane, showing the submucous cellular tissue to be involved. The colour ultimately becomes of a livid red, and the swelling gives way, leaving a tawny-coloured slough. Should this occur on the back of the pharynx (and I have seen many such cases) the periosteum may be destroyed, and the bone exposed. When the soft

palate becomes involved in the process of ulceration, the palatine bones may become carious, and a communication between the nose and mouth will be found to be present; large pieces of the dead bone may also come away. I have frequently removed large pieces of the palate bone with the forceps, after they had kept up a fœtid discharge for some months. Eruptions may appear on the body at the same time.

In these cases the patient looks pale and desponding, his pulse is weak, and he suffers from nocturnal pains in his bones, muscles, and joints, and frequently suffers from alopecia and onychia. When a communication is established between the nose and mouth, the patient speaks with a peculiar nasal twang, suggestive of the nature of the accident. About six years ago I attended a man from Williamstown, who had been nearly five years under medical treatment, with little or no benefit. It was one of the worst cases I ever saw. The tonsils were eaten away, the uvula was destroyed, and in the back part of the pharynx there were deep, penetrating ulcers. The poor fellow could only swallow fluid nourishment. There were nodes on the shin-bones and on the clavicle. He had taken the iodides for years, and although they might have kept the disease considerably in abeyance, they failed to cure him. My treatment consisted in brushing over the ulcers with a saturated solution of perchloride of mercury, and giving him the hydrarg perchloride, potass iodid, with ammon carb and decoction of cinchona, three times daily. I also applied a solution of potash, with tincture

* Deep ulcer of the tonsils commences in general without producing pain or other inconvenience. The mucous membrane is of a livid red colour, and passes rapidly into a state of ulceration. The ulceration spreads, extending in every direction alike, and often produces a deep circular ulcer, with sharp edges. It has often a yellowish base, but this varies according to the nature of the secretion which adheres to it.—Henry Lee, in Holmes' *System of Surgery*, Article "Syphilis," vol. I., p. 478.

perchloride of iron, twice daily to the throat, by means of the spray producer. So soon as the ulcers had healed, I gave him the triple solution of arsenic, iodine, and mercury, and lastly the citrate of iron, iodide of potassium, and tincture of quassia bark.

This patient was cured in six months, and has continued well ever since. It appears strange that in this case the iodide of potassium *alone* exercised no permanent specific influence over the disease, although taken for so long a time; but immediately it was combined with the perchloride of mercury, its effects were astonishing. Some physicians extol the virtues of nitrate of silver as a local application in these cases, but in my opinion there is no application which acts so rapidly and so satisfactorily as the saturated solution of perchloride of mercury, or the acid nitrate of mercury. I shall refer again to this subject when treating on the therapeutics of constitutional syphilis.

"Diagnosis.—When one or more of the white patches, circular in form, or assuming the semicircular character, are seen on an hypertrophied portion of the mucous membrane, unaccompanied with salivation; when the patient admits having lately had, or still bears traces of, an indurated chancre; when various well-marked secondary symptoms are evident on the patient; when these have been but little benefited by care and local applications, or when the cervical glands are affected, few persons will be found who deny that the symptoms are produced by syphilis, and perhaps, with me, they will call the disease a mucous tubercle of the mouth, the consequence of general and constitutional infection.

"With regard to the history of the case, considerable difficulties often prevent us from forming a diagnosis; patients, intentionally or through ignorance, or inattention to the previous complaints, state that they have never had

chancres, much less indurated primary sores. The absence of chancres should not prevent us from deciding by means of the other symptoms. Let it ever be borne in mind that chancres may heal in a few days, that they may be contracted in other ways than by sexual intercourse, and consequently may exist on any part of the body, as well as on the penis. The denial of the patient is not a sufficient reason for concluding that chancres have never existed.

"Other forms of secondary symptoms are not always present, and in such cases we are deprived of one of the most valuable guides the surgeon can possess. On the other hand, the practitioner should be well convinced that to come to a correct diagnosis on the nature of syphilitic affections of the mouth, the symptoms by which he judges should themselves be correctly diagnosed as syphilitic; he should take care that aphthæ on the mouth be not mistaken for the mucous tubercle; that a sore on the penis should not, without sufficient reason, be considered syphilitic.

"Among the cases that present difficulties in a diagnostic point of view, we should more especially notice those patches, or that bald or whitened condition of the tongue, which persons in large practice must be familiar with in some forms of *indigestion*, and likewise in cases of simple *lepra* and *psoriasis*. That such affections will occur without any syphilitic symptoms having preceded them, there can be no doubt, and the diagnosis will depend generally on the absence of any concomitant symptom of syphilis; but the greatest caution must be used in coming to a conclusion" (Acton).

S. DISEASE OF THE PHARYNX AND ŒSOPHAGUS.—The mucous membrane of the posterior wall of the pharynx is frequently the seat of induration and ulceration, accompanied by a viscid mucous and purulent discharge. The act

of swallowing causes so much acute pain that little nourishment can be taken. The patient is also troubled with a distressing cough, and the function of respiration is greatly impeded thereby. When the ulceration is deep it may extend to the periosteum and bones beneath to the vertebræ, or to the base of the skull, and by causing irritation of the brain may give rise to epileptiform convulsions. Mr. Berkeley Hill has recorded the case of a patient who had suffered during twelve months from tertiary syphilis, extensive ulceration of the palate, pharynx, and larynx; through one of the ulcers on the pharynx the pharyngeal mirror showed the bone to be exposed. Before this necrosed bone had exfoliated, he had three severe epileptiform fits; when the bone healed he had no return of the fits. I have seen three cases of a similar nature, and in all the fits subsided on the recovery of the diseased bone. Follin* has described cases of œsophageal dysphagia which occurred whilst syphilitic palmar psoriasis was present. In one case it disappeared with the subsidence of the eruptions; the other was not relieved until specific treatment was employed.

Syphilitic ulceration of the œsophagus frequently causes contraction of its calibre, which may speedily culminate in that most dreaded of all diseases, "organic stricture of the œsophagus." No language can pourtray the sufferings which the victim of this terrible lesion has to undergo; independently of the pain which the poor sufferer has to bear, he is literally starving for the want of that sustenance which he is unable to swallow. It has fallen to my lot to treat many cases of this nature since I have been in Melbourne; and I find Dr. West† has reported three cases of the kind.

* *Pathologie Externe*, vol. I., p. 696.

† *Dublin Quarterly Journal*, vol. I., p. 696.

Dr. Wilks* has also recorded cases of stricture of the œsophagus in syphilitic persons.

"The pathological changes in these cases appear to be identical with those observed in the larnyx and pharynx—namely, the formation of gummy nodules and fibrous induration in the submucous tissue, which slowly degenerate, ulcerate, and finally heal into rigid contracting cicatrices. The seat of stricture appears variable. In one of West's cases the stricture was at the lowest, in another at the upper, part of the gullet. In Virchow's and Wilks' observations the stricture was in the upper part also. Lancereaux has collected about ten cases where stricture of the œsophagus has been attributed to syphilis" (Berkeley Hill).

The following case is interesting.

CASE LXIII.—*Syphilitic lepra. Ulceration of tonsils and uvula. Great pain and difficulty in swallowing. Emaciation. Cured.*

A young married woman, whose husband was in New Zealand, came under my care in November, 1868, complaining of the following symptoms:—Great pain in swallowing, and feels as if the food never reached the stomach, through some obstruction; the pain continues without intermission for more than an hour after taking nourishment, when vomiting takes place. The matters vomited consist of the food taken mixed with blood, and muco-purulent secretion; after the act of vomiting she is easier. On examining her skin it was covered with lepra of a syphilitic character, the mucous membranes being also affected, involving the uvula and tonsils. She stated that her husband had given her sores on her genital organs nine months before I saw her, for

* *Guy's Hospital Reports*, vol. ix, p. 41, 1863.

which she had been treated by a club doctor. It was evident that the most urgent symptoms lie in the œsophagus, and as she was much emaciated it was apparent that unless some relief could be afforded her, she must inevitably sink from exhaustion. I, therefore, as an aid to an accurate diagnosis of the case, first introduced the œsophageal tube, and found there was no narrowing of the canal from contraction, or from the presence of tumours or of other morbid growths. I therefore came to the conclusion that it was a case of ulceration of the lining membrane of the œsophagus, and, from the history of the case, undoubtedly of syphilitic origin. I prescribed hot baths, containing the perchloride of mercury, and hydrochlorate of ammonia, every third day; strong chicken broth, veal tea, isinglass and milk; gelatinous soups, and whites of eggs; iced claret occasionally, and a piece of ice to be kept constantly in the mouth. Internally, she took a mixture containing the perchloride of mercury, chlorate of potash, and diluted hydrochloric acid, with syrup of orange-peel. No solid food was allowed.

In twelve days after this treatment was commenced, she could swallow without difficulty, the vomiting had subsided, and she had gained flesh. The eruption on the skin had nearly disappeared, together with the ulceration in the throat. I however treated her for some time afterwards for safety, and she recovered her former health and vigour.

SYPHILITIC DISEASES OF THE LIVER have been observed and described by Frerichs, Gubbler, Dittrich, Wilks, Wedl, Virchow, Lancereaux, Astruc, and Portal. It is an organ that is often seriously affected by the syphilitic taint, and is probably less suspected than any other, save the lungs, of being the seat of that kind of lesion. Many persons to my knowledge, and to that of other practi-

tioners, are afflicted with severe and chronic liver complaints, which have been long under the ordinary treatment for hepatitis, without avail. Some have come under my care, and I have had occasion to alter the course of treatment to an anti-syphilitic one, with the best results. This viscus when diseased frequently resists every attempt to relieve it that is not anti-venereal. It is, however, to be admitted that the indications of syphilitic disease of the liver are extremely difficult of detection during life, and require more than ordinary experience. In some cases the organ becomes larger than is normal; at others it shrivels and dies from atrophy. Inveterate jaundice is another symptom which is not easily determined upon as to its diagnostic value, unless by careful analysis of the constitution at the time, and the history of the case. Should the jaundice be owing to syphilitic lesion, it will be of vital importance to discover the cause, and deal with it specifically, or it will almost certainly prove fatal.

An instance that I had the opportunity of seeing at a very late stage, which had been under the care of a practitioner in another colony, was exceedingly valuable as an illustrative case; and had I been able to secure an autopsy at the death, it would, I feel certain, have been a useful addition to our pathological records. The patient had not long been jaundiced; he complained of pain in the region of the liver, and stated that at an earlier period there had been a very considerable and sensible fulness there, but that there was not much tenderness on pressure. He said that he seldom or ever got any relief from medicine; his urine was high-coloured, and he was always thirsty and nauseated. His general appearance was atrophic, and his skin a dirty yellowish tint, which first led me to suspect the syphilitic complication. I determined to examine him as carefully as possible for further confirmation of my suspicions.

He complained when I pressed the anterior ridge of the tibia, about half-way below the knee, and I detected some remains of what I conceived to have been nodules of a syphilitic nature. He also could not bear sternal palpation. There were about his body, particularly on the back and sides, coppery-coloured marks, and he confessed to having had chancre about four years previously. In the hope of giving the unfortunate sufferer some relief, I adopted an antisyphilitic course, according to the circumstances, and was surprised to find the ready response of the system to it. The patient experienced great relief, but was too far emaciated to hold out, and died, in my opinion, a victim to the ravages of an unrecognised syphilitic taint. I feel assured, from observations made after death, in the manipulation of the body, that there existed other important lesions of a syphilitic character, which augmented the rapidity of the decline. This case amply indicates the necessity, so often expressed, of vigilance in the practitioner, wherever unusual obstacles stand in the way of restoration to health under supposed appropriate treatment; and in its history we have a valuable aid to diagnosis.

At a very early period of the history of syphilis, or soon after its being recognised as a distinct disease, it was generally believed that the liver was especially the seat of lesion from that poison. Even during the time of Paracelsus there was considerable discussion as to whether that organ was equally liable to invasion with other viscera. During the fifteenth and sixteenth centuries, there were many writers of note who maintained that the liver was especially the seat of lesion, and that it exhibited in a marked degree the singular characteristic effects of the venereal poison, in the form of nodes, gummata, and cheesy deposits. The weight of evidence and opinion has always been on the side of those who have considered hepatic syphilis as by no means a rare

disease, but on the other hand a more frequent occurrence than is generally believed or suspected.*

Astruc and Portal, two eminent writers of the seventeenth and eighteenth centuries, did much to establish the opinion, from extensive observations made on the bodies of those who had died of syphilis, that the liver is an organ especially liable to invasion by the syphilitic virus. For a long time the discussion ceased, and the medical world scarcely made any observations on syphilis whatever; hence nothing of consequence was added to our medical literature, or to the data accumulated at an earlier period, until M. Ricord, of France, the greatest syphilographer of the nineteenth century, entered upon the investigation of this special disease,

* The liver appears to be far more frequently affected than any other organ. Indeed, in the examination of the bodies of those who have suffered from tertiary syphilis, it is decidedly exceptional not to find proof of hepatic mischief. The most common condition consists in large white patches of fibroid thickening on the surface of the organ. These patches are evidently cicatricial. The liver is knotted and puckered up by them, and bands of cicatrix dip from the surface into the substance of the organ. Sometimes, when the destruction has been great, the whole bulk of the organ is diminished. In recent disease the affected parts of the organ are enlarged, and on section exude a material not unlike bees-wax, or glutinous and gummy. I am not aware that abscesses have as yet been met with in the liver in supposed connection with syphilis. Virchow recognises two forms of disease—a capsular hepatitis and an interstitial hepatitis. Of these the capsular inflammation is the more common and the less serious. It is probable that the two are generally associated to a greater or less extent. Ascites occurs every now and then in connection with syphilitic disease of the liver. An instance of it in a woman, the subject of inherited syphilis with a contracted liver, has recently been under my care. The disease was of several years' standing, and paracentesis had been repeatedly performed. By a long course of iodide of potassium, with ammonia, the fluid was entirely removed and her health much benefited. Ascites from liver disease is not very infrequent in the subjects of inherited taint.—*Constitutional Syphilis*, by Jonathan Hutchinson, F.R.C.S., in Reynolds' *System of Medicine*, vol. I., p. 307.

and demonstrated that the liver is particularly disposed to suffer from syphilitic degeneration. He has described the nodules in his celebrated *Clinique Iconographe de l'Hôpitaux des Veneriens* as existing in the same condition as in other diseased viscera, and synchronous with their pathological conditions.

Two forms of the syphilitic liver have been recognised by painstaking observers, namely, the interstitial and the gummy hepatitis. From an increase of the connective tissue of the capsule of Glisson, along branches of the Portal vein, a new fibrous tissue is formed, which ultimately contracts and puckers the surface of the liver. The organ is pale, and its surface uneven from being puckered into deep furrows by the fibrous bands which pervade it. On cutting into it, it will be found to be atrophic, with some of the bile ducts occluded, and the tissue of a yellowish colour. Syphilitic livers vary in size, but are generally contracted. Should, however, amyloid disease be present, there will be abnormal enlargement. In gummy hepatitis, round nodules of various size and irregular shape are developed in the substance of the fibrous seams. In structure they are firm, dry, and yellow. The differential diagnosis between syphilitic cirrhosis and the cirrhosis of drunkards is easy. In the former the liver is drawn into uneven masses by fibroid bands, and peritoneal adhesions are present. In the latter, although the liver is uneven, it is nodular, when it is termed the "hob-nail liver." The cause of syphilitic disease of the liver is often obscure, always slow, ending sometimes in recovery or death.

"*Amyloid Degeneration.*—Frerichs says constitutional syphilis is one of the most common predisposing causes of waxy degeneration. It is met with very frequently in combination with the other forms of syphilitic disease, both in adults and new-born infants. The liver or parts of the

liver so affected are large, smooth, and firm; on section the diseased lobules are pale and translucent. This translucent tissue turns dark brown if touched with iodine, while the unaffected tissue remains a light yellow. Lobes or groups of lobules are often attacked by amyloid degeneration while surrounded by the contraction of the capsule of Glisson. In new-born infants, amyloid degeneration is much more frequent than the other forms of syphilitic disease; but it is exceedingly common in adults also.

"*The symptoms of hepatic disease are rarely successfully discerned during life.* Respecting alteration of the bulk of the liver: in a case in Oppolzer's *Clinic,* described by Pleischl and Klob, the liver was for a short time larger than natural, but while the patient was under observation it diminished until he died. The inequalities of the surface are sometimes sufficiently distinct to be detected during life —pain and tenderness are seldom present. But Frerichs had a patient with syphilitic hepatitis, whom the pain compelled to discontinue using the springs at Aix-la-Chapelle. Jaundice is rare, and commonly transitory when present. Two of Pleischl and Klob's cases had jaundice before death. Frerichs, Gubler, and Lancereaux record others. Dr. Fagge mentions two instances, in one of which, that already cited, the patient died of acute yellow atrophy; in the other, the patient regained his health. Frerichs in one case found the gall-ducts obstructed, but in other cases the cause was not evident. Jaundice is most frequent during the outbreak of a syphilitic eruption at an early period of the disease, and does not last more than a few weeks; after then it slowly subsides. Ascites is a much more frequent consequence of the cirrhosis; its course and termination need not be dwelt on here. *Epistaxis, hemorrhoidal flux, disordered digestion, anasarca, are all occasionally consequences of cirrhosis*" (Berkeley Hill).

The appearance of these nodules has been described also by Detrich. Virchow and other pathological authorities have recorded the existence of the syphilitic nodule in this organ, so that now the question of hepatic syphilis is finally set at rest. Frerichs, in his very valuable and exhaustive work *On Diseases of the Liver*, says:—"In the second form of hepatitis syphilitica (hepatitis gummosa), the tissue of the cicatrices (the elevations remaining after ulceration) is seen to contain whitish or yellowish nodules of a rounded form and dried appearance, which usually vary in size from a linseed to a bean, but may be as large as a walnut.

"The effects upon the system of the simple and the gummy syphilitic hepatitis are in general not very striking. The principal portion of the glandular tissue usually continues quite capable of performing its functions, and occasionally the loss of substance is compensated for by hypertrophy. The cases are rare where the larger branches of the blood-vessels or bile-ducts are obliterated, and where the derangements consequent upon such destruction ensue. In those cases, however, where there is extensive induration or amyloid degeneration of the gland, all the consequences of cirrhosis or of waxy liver are usually developed. The cachexia which not unfrequently accompanies syphilitic hepatitis (inflammation of the liver) is attributable to a disease of the spleen, the lymphatic glands, and particularly of the kidneys, rather than to the cicatrices of the liver. The symptoms which accompany the disease during life are often so insignificant that the development of the cicatrices escapes observation entirely, and they are found quite unexpectedly at the *post-mortem* examination. Cases, however, occur where the symptoms are sufficiently marked to render a diagnosis possible. Among the most common of these symptoms is pain in the hepatic region, which at one time is limited, and

at another extends over the entire organ. The pain is usually of a dull, tight character, but sometimes is sufficiently acute to be the subject of great complaint.

"Where pain and jaundice are absent, the alteration in the form and volume of the gland may, under certain circumstances, when the organ is appreciable by palpation, apprise us of syphilitic cicatrices of the liver. Frequently this is not the case, many of the cicatrices being completely concealed by the ribs, and elude all means of diagnostic exploration.

"It is also sometimes a difficult matter to avoid confounding the disease with cancer of the liver, inasmuch as the main characters of the latter disease (the painful, nodulated, hard tumours in the liver) may likewise exist in the syphilitic affection of the organ when it is associated with waxy infiltration. In the cases where there is none of this infiltration, the prominences are much softer than those of cancer.

"The existence of constitutional syphilis, the (mostly) temporary pain and tenderness, the enlargement of the spleen, and the frequent coexisting albuminuria, may lead to a correct diagnosis of the syphilitic form of disease."

I have quoted thus largely from Dr. Frerichs on account of his position as an authority on diseases of the liver, which he, as Professor of Clinical Medicine in the University of Berlin, has made his special range of medical observation. His diagnosis of the disease is conclusive, as establishing the fact of such lesions existing. His position gives him innumerable opportunities of verifying by *post-mortem* observation the conclusions which he may have drawn from external physical exploration, such as inspection, mensuration, palpation, percussion, &c. My own experience has most fully sustained all that he has stated, both in reference to the phenomena to be observed, and the difficulties that occur

in forming a diagnosis. It is often impossible to determine positively by palpation whether the manifest lesion of the liver is to be attributed to cancer or hypertrophy of the organ, unless we can see other less doubtful diagnostic signs on the rest of the body, or in the history of the patient. The cases which I shall give will fully illustrate all that has been advanced in reference to this especial lesion.

CASE LXIV.—*Cachectic appearance. Great debility. Liver much enlarged, and tender under palpation. Indurated chancre on genitals. Œdema of the feet, with Albuminuria.*

Margaret L., of P., sent for me in May, 1868. I found her in bed, much emaciated, and having a decided cachectic expression. The skin was of a dirty yellow and cadaverous tint, which roused my suspicions at once as to the nature of the disorder from which she was suffering. On examining her I found there was general flabbiness of the flesh, and œdema of the feet. On the right labia there was a distinct induration, which was the sequela of a chancre which she stated she had suffered from about five years previously, when her husband infected her. She had since then had occasional soreness of the throat and tongue, and, owing to impaired health, had become extremely thin. On palpation of the region of the liver, I found considerable tenderness and enlargement. Its margin extended below the border of the ribs, and there I could distinctly feel a nodular tumour, which was slightly tender. In the mammary line the liver measured about seven inches, and considerably more than the normal size in the axillary line. It could be readily felt through the thin attenuated walls of the abdomen, so that here and there other nodules than the one just mentioned, but not so large, could be detected. The spleen

also was enlarged, and the urine was charged with albumen.

I could at first scarcely give this patient any hope of recovery. On ascertaining, however, that prior to infection by her husband she had enjoyed robust health, and had never borne children, I judged that if she could bear the treatment she required, and any reactionary force remained, there would be a possibility of restoration. With this opinion I treated her with vapour baths and mercurials, and in three weeks I had the satisfaction of seeing a decided improvement set in. The skin became of a more natural hue, and the size of the liver was manifestly reduced. I then gave her the iodide of potassium, sulphate of magnesia, and carbonate of potash, with a highly nutritious diet, and rubbed into the region of the liver the red iodide of mercury ointment. In about six weeks she was able to go about, and in four months appeared quite well. The albuminuria had disappeared, and I could no longer detect the nodular prominences in the liver. I gave her medicine to be taken for about two months longer, and dismissed her. I have heard that she is still quite well, and has joined her husband in New Zealand, where he follows the avocation of a miner.

CASE LXV.—*Enlargement of the liver, with nodular prominences. Syphilitic cicatrices on the forehead and side. Debility. Diarrhœa. Chronic inflammation of the bladder.*

W. R. L., of Melbourne, consulted me in July, 1864, with the following history and symptoms:—He had been under treatment for a year and a half for disease of the liver, which had been supposed to be the seat of a large abscess. Blisters, dry cupping, and caustic irritants had been tried, but with

very little benefit. The enlargement remained, and the general health continued to suffer. On examination by palpation and percussion, I found the liver much enlarged, and three distinct nodular tumours apparent to the touch beneath the false ribs, and one almost as distinct at the sixth intercostal space. I discovered three manifest cicatrices on the left side, as well as those which were so apparent on the face and forehead.

On interrogating the patient minutely as to the history of his disorder, he gave me to understand that he had five years previously contracted syphilis, and had a chancre and bubo; he had also a skin disease, which he said was very severe and sore in the places where I observed and pointed out the cicatrices. His general health had declined considerably during the two years preceding his coming under my care. At that time he had severe chronic cystitis, requiring him to micturate frequently, giving him great pain. There was a large quantity of mucus in the urine, together with some pus, and a trace of albumen. I concluded that in all probability the hepatic lesion was syphilitic, and that under suitable anti-syphilitic treatment the disease would give way. The use of the iodide of mercury and hot alkaline baths soon produced satisfactory changes, and I was able to discharge the patient cured in about five months.

In the cases which have been just given, we notice in a marked degree what has frequently been mentioned —viz., the syphilitic cachexia (or vitiated habit of body). That the reader may have some tolerable idea of the condition meant by the term, I subjoin Ricord's descriptive sketch of it. He says:—"Any description of syphilitic cachexia must fail to convey a clear notion of it, because its characters are not sufficiently well defined. It might indeed be called an exaggeration and an accumulation of all the

forms which we have hitherto studied, combined with loss of flesh, paleness, flabbiness of the textures, sallowed hue of the skin, weakness of the intellectual faculties, scorbutic manifestations, and finally hectic, or continued fever, with exacerbations towards the evening. This fever very often persists when the external cachectic symptoms have entirely disappeared, and it is useful to know that it is sometimes symptomatic of an internal suppuration which escapes our notice. To all those symptoms aphonia is soon added. Diarrhœa, profuse sweats, and defective nutrition come on, and death at last relieves the wretched being from his sufferings. But this species of cachexia is rare, owing to more attention being paid to treatment; and I may add that it will become still more so, thanks to the progress made in the therapeutics of venereal diseases."

Dr. Wilks also, of whom frequent mention has been made, stated before the Pathological Society of London that "he himself had no doubt of the effects resulting from syphilis, and that in the cases of fatal cachexia following it, various visceral changes would be found. He had no doubt of syphilitic pulmonary affections, nor of disease of the blood-vessels, but exhibited more especially in those cases of paralysis associated with the tertiary forms of the complaint, and due to a softening of the cerebral structures. With respect to the liver, the disease was manifested by the production of fibroid nodules."

Dr. Wilks exhibited several valuable specimens of diseased syphilitic livers. One was that of a man who had been invalided for six years on account of various syphilitic ailments, as nodes on the bone, rheumatic pains, cutaneous eruptions, &c. He died with a waxy spleen and liver, and throughout the latter there were nodules of a fibroid deposit. Another specimen was taken from a child one month old, and weighed $1\frac{1}{2}$ lbs. It was smooth on the

surface, and remarkably hard, cutting indeed more like a fibrous tumour than a liver, and none of the ordinary structure being visible to the naked eye.

Mr. Hutchinson, of the Metropolitan Free Hospital, London, gives an excellent illustrative case on disease of the liver in connection with ascites. He introduces it by saying:—"The following case is one of especial interest as regards the visceral lesions, which are now well known to be not infrequent in the later stages of constitutional syphilis. The case also shows in a remarkable manner the value of the malformation of the teeth as a sign of inherited taint. The malformation differed from what is usual, in that it was not symmetrical—only one tooth was affected; but it fortunately was quite typical. The condition of this tooth was the single symptom which led to a correct conjecture as to the nature of the disease." He stated that he had other cases equally corroborative, where syphilitic disease existed, and which yielded to specific treatment; there was also in all the pale, earthy complexion. The case is thus reported:—"Mrs. H., aged 34, was admitted three months ago. She was sent up from Sheerness by her medical attendant on account of ascites (dropsy), which had lasted for three years. She had been tapped thirteen times. Her aspect on admission was pale and sallow, but not jaundiced. Her physiognomy was not peculiar, if we except a somewhat earthy pallor of face. Her left upper central incisor tooth displayed, however, the most characteristic notch; her other teeth were normal in shape. The abdomen was distended to an extreme degree. After she had been in the hospital about three weeks, Mr. H. drew off two pailsful of yellow fluid. The edge of the liver could then be easily felt; it was rounded, *very firm*, and presented *large nodular irregularities*. The whole organ was much contracted. She recovered under specific treatment, no further operation being needed."

The following are some of the cases which have come under observation in my own practice.

CASE LXVI.—*Syphilis of the liver. Urethral chancre, followed by organic stricture of the urethra, and constitutional syphilis. Death.*

This patient was admitted into the Melbourne Hospital under my care, suffering from organic stricture of the urethra, together with false passages in the urethral canal, and an abscess in the perinæum. He gave the following history of his case:—Five years ago he suffered from urethral discharge, the result of an impure coïtus. He was told that it was gonorrhœa, and was treated for such, when the appearance of copper-coloured spots on the forehead at once modified the opinion of his medical adviser. Ever since he has suffered more or less from the eruption, and he has noticed a sensible diminution in the size of the stream of urine. About a month prior to his admission into the hospital, he was seized with retention, and applied to a "clever chemist" to have his water drawn off. This functionary, however, failed to do so, after an attempt extending over an hour, but he managed to draw off a large quantity of blood. The next day he felt great pain along the course of the urethra and perinæum, and was in a high state of fever; he could, however, manage to extrude his urine, with considerable difficulty, by drops, in which was a large quantity of blood. I managed to pass a No. 2 catheter into his bladder, but during the passing of the instrument it kept slipping into two false passages. These must have been produced by the clever manipulation of the "clever chemist." I also noticed on the palms of the hands, the forehead, and the shin-bones, evidence of constitutional syphilitic invasion. The abscess in the perineum was poulticed for a couple of days, and then

freely opened. He was ordered a liberal diet, with a moderate amount of stimulants. The urine was ammoniacal, loaded with lithates, and deposited a large quantity of mucus, and there were traces of tyrosin and leucin. His skin presented a slightly jaundiced appearance. His liver was tender on pressure, and seemed to be atrophied, from the limited area of dullness on percussion of that organ. The treatment was directed to the relief of the most prominent and distressing symptoms, but from day to day he gradually became weaker, with intolerable thirst. The brain became affected, as was evidenced by a slight incoherency, which ultimately culminated in complete delirium and insomnia. Lastly, he became comatose, and gradually sank.

The body was examined twenty-four hours afterwards, with the following result:—Body slightly icteric and emaciated, with considerable effusion into the ventricles of the brain. Old adhesions on both sides of the chest, with a cicatrix on the upper lobe of the right lung. No abnormity observed in any of the thoracic organs. The liver was small, puckered, with nodular-looking bodies on its surface. On cutting into it, it presented the true characteristics of the syphilitic degenerated liver, and weighed only thirty ounces. The bladder and urethra were carefully examined, the former showing its mucous membrane thickened and roughened, and the latter a double stricture; the one occupying a space about two inches from the meatus, and the other just anteriorly to the prostate gland. There were also two false passages, the one commencing about two inches and a half from the prostate gland; the other had been formed by actually thrusting the catheter into the floor of the urethral passage, and forcing it into the bladder under and around the prostate gland; in fact I passed an elastic catheter through the false opening in the urethra, and it

slipped easily into the torn bladder without going through the prostate.

Although this case is cited especially as an illustration of constitutional syphilis involving the liver, still I cannot but call attention to the fact of the patient's escape from infiltration of urine, and possibly death, after such treatment as he received from his "clever chemist," and the extensive injury done to his urethra. The whole of this poor man's sufferings may be attributed to the false diagnosis made by the surgeon who first attended him, and who mistook what was evidently a urethral chancre for an attack of gonorrhœa. Had he used the valuable instrument known as the urethroscope, he would have at once discovered it.

CASE LXVII.—*Syphilitic disease of the liver, with atrophy of the organ, and dropsy. Syphilitic disease of the skin. Death from cholera.*

A lance-corporal, aged 26 years, belonging to the 3rd Royal Lancashire Regiment, stationed at Gibraltar, was admitted into hospital under my care, complaining of great weakness, pain in the epigastric region, together with a feeling of nausea and loss of appetite, and total inability to attend to his duty. His antecedent history was to the effect that six years ago he contracted a chancre, which his medical adviser termed "Hunterian." He was a long time under treatment, and before the sore had healed, symptoms of a secondary syphilitic character manifested themselves on the skin in the form of vesicular syphilide; and simultaneously there appeared on the tongue, throat, and anus, mucous papules. At the same time his hair fell off, and he became partially bald. He said he was treated for enlargement of the liver eighteen months previously.

When seen by me, I noted the following symptoms and

appearances:—A young and tolerably fleshy man, his abdomen rather large, measuring 41½ inches round, with evident fluctuation, determining the existence of fluid within its cavity. There were a few of the pustular syphilides in the posterior part of his scalp. His bowels were costive, and his urine was rather scanty, exhaling a peculiar fetid odour, and loaded with lithates. He was thirsty, with a furred and dry tongue. His pulse was 90, and weak. On percussing the liver it was found to be small and free from tenderness. The heart, lungs, and air passages appeared to be normal. The diagnosis was *constitutional syphilis, disorganising the liver.*

To relieve the most urgent symptoms, tonics and diuretics, with strong nutritious broths, &c., were prescribed for a short time, and the anti-syphilitic treatment was commenced with very marked improvement; but unfortunately he was attacked by cholera, and died twelve hours afterwards.

The *post-mortem* was made by me in the presence of Drs. Firth, Stewart, and Brandt, three hours after death, when the following appearances were observed:—The body externally was tolerably muscular, the cadaver betraying the fearful results of choleraic malignity. The skin demonstrated from cicatrical lesions the pre-existence of secondary and tertiary syphilitic formations in their various phases. Beyond the usual after-death appearances of malignant cholera, nothing abnormal was observed in the lungs and air-passages. The abdominal regions were also healthy, with the exception of the liver, which was strikingly characteristic of the so-called syphilitic liver. It was abnormally small, presenting on its surface several cicatrices and fibrous nodules, which when sliced displayed masses of straw-coloured fibro-plastic deposit.

In commenting upon this case, I may observe that the existence of constitutional syphilis, which ultimately de-

stroyed the proper secreting tissue of the liver, and thereby caused the more alarming symptom—dropsy, with its attendant distressing and symptomatic phenomena, cannot be doubted; and I feel confident that the health of the patient would have rapidly improved under the treatment, if he had not been so suddenly and unexpectedly cut off by cholera. The *post mortem*, however, is instructive. Many able pathologists now believe that syphilitic disease of the liver presents two distinct epochs during its invasion and progression—viz., the initial stage, by which the liver is much enlarged; and the terminal one, in which the organ becomes atrophied and nodular, strikingly suggestive of structural lesion of its substance, through the invasion of the syphilitic poison.

CASE LXVIII.—*Tertiary syphilis. Syphilitic degeneration of the liver, causing dropsy, and other alarming symptoms. Cured.*

A gentleman from Queensland, aged 30, consulted me in December, 1864, on account of difficulty in breathing, short hacking cough, pain in the region of the liver, and enlargement of the abdomen. He had no appetite, and his sleep was much disturbed. He had occasional attacks of fainting, and was much exhausted. He said that he had been treated for indigestion by one, for heart disease by another, and consumption by another, and was latterly told that his case was an incurable one. When I stripped him for examination, I noticed an ulcer of a copper colour, about the size of an almond, on the sternal end of the right collar-bone. This bone also was much enlarged, and his scrotum was studded with syphilitic tubercles. He had never been told they were venereal, and he could get nothing to heal them. He was much emaciated, and his skin looked yellow.

His hair had been falling off for some time. He was much dejected in spirits, and thought he would never get well again. He mentioned to me that he had primary syphilis ten years ago, after which he had swellings on the shin-bone of the left leg, which the doctor called *nodes*, and treated accordingly. He at length thought he was quite free from disease. The present skin symptoms appeared about two years ago, since which he has been gradually failing in health. Inspection of the abdomen showed it to be large, fluctuating, in measure forty-three inches round. The liver presented symptoms of enlargement anteriorly, and there was a ridge-like protuberance, which extended three inches and three-quarters from the epigastric region towards the false ribs. The heart's action was normal; there was no bruit perceptible. The liver was tender during palpation. He had a cough, with copious expectoration, but there was no symptoms of lung or bronchial disease. The urine contained bile, and a considerable quantity of lithates, but there was no albumen. I came to the conclusion that it was a case of constitutional syphilis, in which the liver was chiefly the seat of lesion, and treated it accordingly. By a course of specific treatment the new adventitious material was absorbed, and the patient was speedily restored to health.

The cases cited are illustrative of the invasion of the disease in the adult liver, and they are sufficient, with the authorities given, to convince the reader that disease of the liver from syphilitic degeneration is by no means an uncommon occurrence. They also go to prove that, if treated specifically, this serious lesion may be cured. There is little doubt in the minds of those who have paid especial attention to the subject of organic syphilis, that many of the intractable diseases of the liver which are daily met with are not idiopathic, but are lesions consequent on the existence of

constitutional syphilis. Not only are adults subject to this hepatic lesion, but infants also are found frequently to suffer from the same by reason of hereditary taint.

Professor Thiery recently exhibited to his class specimens of the specific alteration described by others as affecting the liver in hereditary syphilis. In one case the fœtus was born dead at the seventh month, and the liver was in an excessive degree charged with blood (hyperæmic). There were deposits of ovoid, yellowish-white kernels, of varying dimensions. In my own practice I have met with children whose livers, from the physical signs and hereditary contamination, I had not the slightest hesitation in pronouncing syphilitic. In the child, especially when it is atrophic, there is little difficulty in detecting the nodular prominences in the liver. The atrophy of children is sometimes the consequence of this hepatic lesion.

Mr. Lee, than whom there are few better authorities or more careful observers, says, in reference to syphilis in the liver:—"In considering the syphilitic constitution, the liver must retain its pre-eminence, both as the organ most commonly affected, and the one in which an alteration was first discovered in connection with the disease. It may be remarked, too, that hepatic disturbance and jaundice have been noticed in the course of syphilis by many of the most ancient writers. There are three varieties of the syphilitic liver: the first, that in which the whole organ has become infiltrated by a new fibre-tissue, producing a uniform and general hardening; the second, in which the presence of the new material in the course of the portal vessels has produced a contraction like that of cirrhosis; and the third and most striking form, where the organ is pervaded by distinct nodules of the new formation.

"The first variety has mostly been observed in children who have died of hereditary syphilis, the organ being

large and intensely hard, all the natural structure having disappeared to the naked eye, and the microscope showing the organ to be pervaded throughout by the adventitious material. The second form is constantly seen in those bodies which are tainted by syphilis, and is often found associated with the lardaceous degeneration. Inasmuch as the patient may have been intemperate in drink, the change may wrongly be attributed to alcohol. In many instances, however, judging from the history of the case and the morbid appearances found elsewhere, I have been pretty confident syphilis was the origin of the disease. It may go on like alcoholic cirrhosis to produce dropsy, as was lately observed in a patient in the hospital, who required to be tapped several times before his death. The third form shows the most characteristic changes, and those which are generally pointed out as evidence of the presence of syphilis. Here are seen distinct nodules scattered through the substance of the organ, sometimes as small as peas, and at other times as large as walnuts. These after a time become dried up, and then form tolerably circumscribed masses; but the neighbouring tissues are often infiltrated, and then they send out long processes into the neighbouring hepatic tissue. When near the surface they shrink up the tissue, causing deep cicatrices, so that we may constantly meet with a liver much altered in shape, or apparently lobulated, from the effects of syphilis which had occurred many years previously."

S. DISEASE OF THE STOMACH.—This viscus does not always escape the operations of syphilis, though it is rarely the seat of any very serious lesion on account of it. The fact, however, of its occasional occurrence is the inducement and justification for calling attention to it.

Dr. Brinton (*On Diseases of the Stomach*, 1859) states that in one hundred cases of ulceration of the stomach Engel

found forty which manifestly proceeded from syphilis. M. Fauvel exhibited a stomach, the parieties of which were hypertrophied, especially in the vicinity of the pylorus, and the mucous membrane ulcerated in various points. As the woman to whom this stomach belonged had shown syphilitic antecedents, and an exostosis existed upon one of the tibiæ, it was believed that this thickening of the parieties was due to hypertrophy of the fibrous coat developed morbidly, and under the influence of the syphilitic cachexia.*

Should derangements, therefore, of the stomach of an obstinate character exist, together with epigastric tenderness and vomiting, in those who have at any time been infected by the syphilitic taint, the medical attendant should at once be on his guard as to the nature of the disease, and treat it specifically. Ulceration of the stomach is by no means an uncommon disease, and is exceedingly intractable, ending frequently in death.

S. DISEASE OF THE INTESTINES.—The intestines have been frequently found involved in syphilitic ulceration, the greater portion of the membrane throughout the entire canal being more or less affected. There are few instances mentioned in the records at my disposal—either English or continental—in which the small intestines have been diseased; but there are several in which the ulceration has invaded the larger intestines. As a matter of course, much care is required in arriving at the conclusion that the ulceration is syphilitic, so closely does it resemble that usually met with in more common diseases of the bowels. It is nevertheless true that the bowels, in common with every other organ of the body, may partake of the constitutional taint. In those instances where I have had occasion to

* *Bulletin de la Societé Anatomique*, 1858.

suspect its existence, very obstinate dysentery has been a prevailing symptom.

J. Frank (*Traité de Pathologie Interne*) cites the following:—"A young woman, of nineteen, had had primary syphilitic ulcers; then secondary ulcers on the neck, and a syphilitic eruption. These affections being cured, she had pains, colic increasing during the day, vomiting, colliquative diarrhœa, and hectic fever. The *post-mortem* examination showed an ulcer at the termination of the ilium, another in the cæcum, and three in the ascending colon. These ulcers were declared by Harlt to be syphilitic."

Leudet has contributed a case of visceral syphilis, in which there existed numerous ulcerations in the large intestine, and especially in the transverse colon and rectum. Andral (*Clinique Médicale*, t. iv., p. 122) has recorded a case of assumed syphilitic disease of the stomach, in which the symptoms were progressive emaciation, with a leaden hue of the skin, loss of appetite, a painful sensation beneath the xyphoid cartilage, frequent eructations, and rejection of food a few hours after being taken. An ulcer which was found in the posterior wall of the pharynx raised a suspicion of syphilis, and the patient recovered under the influence of mercury.

S. DISEASE OF THE RECTUM.—That portion of the lower bowel which is the terminal part or lower third of the descending colon, is much more frequently subject to syphilitic ulceration than the rest of the canal, and often when not suspected. It has been to me a matter of some surprise, how commonly ulceration of this organ has existed without the slightest supposition of its true nature. Several times have cases of some standing come under my notice which I have found to be unquestionably syphilitic, and which readily gave way to treatment in accordance with that

opinion. The use of the speculum is necessary to a correct diagnosis, although it is calculated in some cases, and when not dexterously used, to produce pain of unusual severity. It will, however, often reveal a condition of ulceration that will set at rest the doubts—if there be any—in reference to the syphilitic lesion of the part.

In connection with the papulous sore, there is commonly to be found a STRICTURE of more or less importance, which during defecation gives intense suffering that is difficult to relieve. It is a more frequent concomitant of syphilis in the rectum than is usually admitted, and when it is found it is associated with fistula, or rhagades. The part affected suppurates freely, and discharges sometimes an ichorous pus, at other times a dense, tenacious kind of mucous, which frequently perplexes both patient and medical attendant, nor does it yield promptly to nitrate of silver applications. An anti-syphilitic course of treatment is often followed by the very best results. The local treatment of the stricture must also be well directed and judiciously carried out. In order to promptly relieve the bowel obstruction, which is the cause of so much inexpressible suffering, my practice is to divide the sphincter muscle freely, in which I include the contracted tissues; I then dilate the parts widely by means of Weis's dilator, through which I apply carefully the acid nitrate of mercury. I then wash out the parts and introduce oiled sponges. In two days the sponges are withdrawn, and the anus is filled daily, with an ointment composed of calomel, oxide of zinc, glycerine, and cetaceum ointment. Warm hip baths should be taken every day. I may here observe that it is the practice of some medical men, including Mr. Berkeley Hill, to make small incisions in the stricture, and simply use bougies for the purpose of dilatation. Such a nervous course of procedure I am at a loss to

understand, as it can be of no possible benefit to the patient, to whom rapid amelioration of his suffering is of vital import. On this point I will let Mr. Hill speak for himself.

"*A Stricture of the Rectum* occurs in women, by some attributed to syphilis, but probably not dependent on that disease; and more likely a local affection excited by continuous irritation. The anus is beset with suppurating patches; the rectum is narrowed at one or two inches within the sphincter, and above that is enlarged; the submucous tissue is thickened, the surface is red and eroded, while at the stricture itself it is often ulcerated deeply, causing much pain to the patient at defecation. The disease has a slow course, and though curable for a time, always recurs if treatment is interrupted. The symptoms are mainly difficult and painful defecation, discharge of pus and blood from the bowel, and the anatomical characters just described. The treatment consists of rest and tonics, local astringent injections, and dilatation by bougies, with occasional *small incisions.*"*

I ought not to omit mentioning that it is not infrequent for a syphilitic state of the rectum to be pronounced, even by practitioners of respectable standing, as internal piles, and to be treated in unison with that conviction. A case of this kind presented itself not long ago in my consulting-room. The patient arrived in town from Warrnambool, to consult me concerning what he confidently pronounced to be internal piles, in obedience to the opinion of a medical gentleman whom he had consulted in the Western district. I was able to learn that the best measures had been taken to relieve the patient, had inward hemorrhoids been the real disease. This I noticed from two prescriptions which the

* *On Syphilis and Local Contagious Disorders*, by Berkeley Hill, M.B. Lond.

patient brought with him, and from his account of the treatment. I therefore resolved on searching for other causes of his sufferings than the hemorrhoids. On examining the rectum by means of the speculum, I at once was convinced that the disease was not hemorrhoidal, nor was the ulceration that existed of an ordinary character. These opinions I did not, however, at once communicate to the patient, but continued the examination of his history, and elicited that, several months before, he had suffered from chancre and bubo, which had been treated in the ordinary way by a druggist. I also had reason to suspect that the case might have arisen *à preposterâ venere*, but could not positively affirm it. A long and tentative examination of the case and its history was entered upon because of its peculiarity, and because of its being a branch of the subject in which I am anxious to make further observations. The treatment, however, was anti-syphilitic, and I am gratified in being able to state that he soon recovered completely. Although it is now two years since I dismissed him, he has no return of any kind of syphilitic ailment, either in the rectum or elsewhere. I give this case as an illustration that syphilis may often be the real evil in apparently intractable diseases of the rectum.

As an excellent illustrative case of this very common disease of the rectum, I give a sketch from a clinical lecture delivered by Mr. Paget, surgeon to St. Bartholomew's Hospital, London. Mr. Paget said that the history of the case was as follows:—"The woman was admitted into the hospital about November, 1864, being at the time 28 years old. She stated that seven years previously she had been affected with syphilitic sores, shortly followed by a scaly cutaneous eruption. About a year subsequently she became subject to an itching about the anus, and a growth of skin appeared, reaching a short distance into the rectum. Two

years after this a large ulcer formed in the neighbourhood of the anus, and a growth of skin appeared again, reaching a short distance into the rectum. The ulcer was destroyed by the application of some corrosive fluid. The growths before mentioned were removed, and rectum bougies were passed for a stricture which was already in process of formation. At the end of a fortnight, being much relieved, and her general health improved, she was made an out-patient, but soon becoming pregnant, she ceased to attend. The child she gave birth to *was born dead.* She was afterwards treated both at St. George's and King's College Hospitals, on account of a relapse into her former state, and was relieved. She again applied at St. George's Hospital in July, 1867. The canal of the rectum was now so much narrowed that only a catheter could be passed through the stricture; her general health was beginning to fail. She was treated and discharged, but was soon taken to St. Bartholomew's Hospital. She was then extremely emaciated, and shortly died with the complication of pulmonary phthisis.

"At the *post-mortem* examination, the chief points of interest were the characters of the disease found in the rectum and colon. Cutaneous growths had existed, but had been cut away. The growths referred to were grouped round the anus, in texture pinkish, soft, fleshy, glistening, moist, and thinly secreting; in shape irregular, flattened as if by mutual pressure, sharp-edged, or conical. These growths are very common in association with syphilitic disease of the rectum. The whole mucous membrane of the rectum in this patient was destroyed, except one small patch. The disease commonly extends from the anus, as if by continuity with the excrescence, to about five inches up the rectum, and eventually produces stricture. The seat of the stricture is usually about an inch and a half or two inches above the anus. On the mucous membrane of all parts of the colon

(or large bowel) there were ulcers of a truly syphilitic character, many of them having an evident likeness to the annular syphilitic ulcers of the skin. The ulcers of the colon decreased in size and closeness as they receded from the rectum. They were so different from all forms of catarrhal, follicular, typhoid, dysenteric, and cancerous ulceration of the intestine, that there was no need to compare them. The chief grounds of diagnosis that they were syphilitic and not tuberculous were, that the ulcers were limited to the large intestine, which is never the case where the disease is a tuberculous one, as in phthisis. There was not a trace of tubercle in any tissue of the intestines. The ulcers were unlike in any of their characteristics to those of tuberculosis. They did not bear even a remote resemblance to any other form of intestinal tumour. Hence they were justly regarded as syphilitic by their occurrence in a patient with a complete syphilitic history; by their coincidence and continuity with a disease of the rectum and anus, which is very rarely, if ever, seen except in those who have had secondary syphilis; by their likeness in many features to some of the admitted secondary syphilitic ulcers of the skin, and by their unlikeness to any other intestinal ulcers. Some, indeed, may choose to call them 'lupous,' but to this name it would be necessary to add another to indicate the nature of the constitutional malady with which the 'lupus' is connected, for lupus is not a single local disease depending on only one constitutional defect. It is in some cases strumous; in some, tuberculous; in some, syphilitic; in some it has a relation to cancer. If the ulcers in the colon of this patient are to be called 'lupous,' *they must also be called syphilitic.*"

I have made a rather lengthened abstract of this lecture on syphilitic disease of the rectum and colon, on account of the rank of the lecturer as an eminent surgeon and pathologist, and the singular fitness of the case as a representative one.

In every sense of the word it was eminently syphilitic, viewing it in its history and its pathology. It is to be regretted that more attention has not been paid to this lesion of the rectum and colon, for it is by no means a rare disorder, occurring both during the existence of the syphilides and when the usual tertiary phenomena are present in other tissues. Many patients suffer a great deal of unnecessary inconvenience and torture from the misapprehension of the nature of diseases of the rectum, inasmuch as the treatment usually adopted for diseases of an idiopathic or purely local character, although appropriate under such circumstances, would utterly fail in giving relief when the disease was a mask for the syphilitic dyscrasia. The following cases are selected from my records as illustrations of the serious nature of the lesions in the rectum and bowels, and of the promptitude with which they yield to specific treatment.

CASE LXIX.—*Syphilitic ulceration of the colon, or large intestine. Dysentery, with great suffering. Cured.*

Mrs. T., aged 32, came under my care in April, 1868, complaining of dysentery of long standing. She said that she suffered from griping pains in the abdomen, and a constant desire to relieve the bowels, accompanied with bearing-down pains. The motions were scanty, very offensive, and found to contain blood, purulent matter, and slime. The urine when passed was hot and high-coloured, containing a large quantity of the lithates. The pulse was quick and small, with a dry and hot skin, together with great thirst. She had lost her appetite, and was much emaciated. She said that she had been told by the doctors that she could not recover. On questioning her closely and carefully, I learnt that she had ulceration of the tongue and throat some time before the dysentery set in, and on inspecting the throat I found it still

in a state of ulceration which was evidently syphilitic. She also showed me an eruption on her abdomen and thighs, and she said that she had had sores on her genitals three years ago. It was now conclusive to my mind that I had before me a case of syphilitic ulceration of the colon, which had been unsuspected.

I at once injected nitrate of silver with glycerine and opium into the bowel, and gave morphia, with ipecacuanha and hydrarg subchloride, every four hours. In a few days the dysenteric symptoms had disappeared, and I then commenced a course of anti-syphilitic treatment, which consisted in the internal administration of the perchloride of mercury, chlorate of potash (to prevent salivation), and hydrochloric acid, with infusion of quassia and orange-peel. A generous diet with old port wine was allowed, and she was ordered a tepid sea-bath every day; and, lastly, as she looked a little pale, the syrup of the iodide of iron was prescribed.

CASE LXX.—*Syphilitic ulceration of the colon. Dysentery. Recovery.*

F. F. R., aged 24, came under treatment in December, 1866. The following is the history of his case:—"For some time he had suffered from tenderness of the abdomen, itching at the anus, accompanied by more or less looseness of the bowels. About three weeks previously he had on two successive days ten evacuations per diem, attended with griping, bearing-down pains, the evacuations being mixed with blood and mucus. A few days before I saw him he noticed that his motions had changed to something like a mass of glue, streaked with blood. On examining his stools I found them to be very fetid, containing muco-purulent matter. He complained of pain in the lower part of the

abdomen, which was increased on pressure, and seemed limited to the lower part of the colon and rectum. He admitted having previously been under treatment for both primary and secondary syphilis. He was at once ordered plenty of beef-tea, milk, eggs, arrowroot, &c. An injection of nitrate of silver, belladonna, and glycerine, was given; also pills containing opium, hydrarg subchloride, and ipecacuanha. In a short time his bowels were quiet, the stools natural, and he was free from pain. I then placed him under the specific course of treatment for syphilis, at the same time giving him a generous diet. In a few months he was quite well.

CASE LXXI.—*Syphilitic ulceration of the anus, with acute suffering. Cured by anti-syphilitic treatment.*

J. W., 27 years of age, consulted me in January, 1869, on account of the following symptoms:—A great dread of going to stool, in consequence of the frightful agony which it produced. He also stated that there was always a bearing-down feeling present, together with a sense of weight and uneasiness in the perineum. These symptoms were aggravated by walking, or riding on horseback, or by sitting on a hard cushion. There was also a constant desire to void urine, with distressing pain. He had lost flesh, his appetite had failed for a considerable time past, and he seemed in a low and desponding condition. His forehead, chest, and arms were studded with syphilitic psoriasis. He had singing in his ears, and he had pain in the joints, especially at night. He acknowledged to having had primary syphilis two and a half years before.

On examining the anus with a speculum, a large ulcer of a syphilitic nature was discovered just within the sphincter muscle, which I freely cauterised, and plugged the rectum

with cotton wool, saturated with Price's glycerine. The local treatment afterwards consisted in introducing a rectum bougie, smeared with ointment of nitrate of mercury, every day. He was at the same time put under a careful course of anti-syphilitic treatment. Vapour baths were had recourse to, and a nutritious diet allowed. The rapid improvement in this case was remarkable. All the local symptoms within the anus disappeared within eighteen days. In three months the skin was free from eruption, and the patient had gained flesh, the colour of the skin assuming its natural hue. I dismissed him cured in five months.

Case LXXII.—*Syphilitic disease of the anus eight years after primary inoculation. Cured.*

W. M'F., aged 30, came under my care in April, 1868, complaining of great pain on going to stool, followed by intense suffering for four or five hours afterwards. The motions were always mixed with blood and slime. On examining the anus an excrescence of a pinkish colour, and secreting a thin purulent fluid, was seen at its verge, and just within was found an ulcer about the size of a three-penny piece, and well defined, the mucous membrane only being destroyed. He stated that eight years since he contracted chancre, followed by bubo and syphilitic disease of the skin. The latter symptom was always present in more or less intensity. About two years prior to my seeing him he began to feel uncomfortable when sitting down; this was gradually succeeded by almost constant pain, and very great suffering when evacuating the bowels, the motions being covered with blood and mucus. He said that, when in his normal state of health, his weight was sixteen stone: he was then reduced to eleven and a half. He could not sleep at

night without opiates; his spirits were broken, and he expressed a wish that death would soon rid him of his miseries.

After thoroughly emptying the bowels, I proceeded to excise the morbid growth. At the same time I cauterised the raw surface left by its removal, as well as the ulcer, with the acid nit. hydrarg, and plugged the parts with cotton wool, saturated with glycerine. The after-treatment was conducted on strictly anti-syphilitic principles, and in a few months I had the satisfaction of seeing my patient restored (as he termed it) to his "pristine condition," and weighing fourteen or fifteen stone.

Dr. Moxon, assistant physician to Guy's Hospital, contributed the following very striking case of constitutional syphilis, where not only was the liver the seat of lesion, but the spleen also. It is in many points worthy of notice.

CASE LXXIII.—*Syphilitic disease of the liver, spleen, and throat. Acute œdema of the glottis. Death. Admitted under Dr. Gull.*

"This patient died on the same evening that she was admitted into the hospital. At the *post-mortem* examination it was found that the liver weighed 48 ozs., and it was healthy as to substance generally. There was in the right lobe a yellow nodule of the size of a horse-bean, and also a depressed patch one inch long, which was fibrous on its outer part, with an opaque yellow patch in it. This patch could be seen to contain wasting tissue, charged with some fibre-growth. The *spleen* showed a condition pronounced by me 'phthisis of the spleen,' but with some misgivings. The sulphur-like yellow masses, of the size of peas, softened at their centres, were utterly unlike anything I have ever seen in the spleen in the cases of phthisis or tuberculosis; these

were pretty uniform in size, and scattered plentifully through the organ. On seeing the syphilitic patch in the liver, *I had no doubt of their true character as syphilitic deposits in the spleen.*

"Syphilitic gumma of the spleen is not common. The formations present in the spleen in this case were markedly different from any other products that we are familiar with. They were almost deep-seated, and differed thus from the 'embolic' masses which we find in endocarditis. . . . . The lungs were free from tubercles. I have never seen anything approaching such an appearance in any of the tuberculous cases that I have examined. I have no doubt that this is an example of syphilitic gumma of the spleen.

"There was extreme œdema of the arytena of the larynx; lower down the mucous and submucous tissues were swollen and hard; and on the left side, above the vocal cord, was the opening of an abscess, whose contents were semi-consistent, and were graduated into the thickened tissue around."

The next case was given by the same observer, in which diarrhœa was the principal symptom, arising from severe lesion of the stomach and intestines.

CASE LXXIV.—*Waxy stomach and intestines, &c. Constitutional syphilis. Death.*

"J. B., aged 24, formerly a soldier, was admitted into Stephen Ward, on 7th July, under Dr. Habershon.

"He had syphilitic buboes six years ago, but had no chancre or discharge. He was received into Job Ward, under Mr. Poland, for fistula in ano, and sores on the scrotum. He has had diarrhœa and vomiting since admission, and has passed blood to the amount of half a pint in his stool for two or three days; blood comes also from the mucous membrane

of his mouth, and when he is asleep it collects in considerable quantity, and coagulates. He has had pain in the long bones since admission, and also soreness of the tongue.

"*Present condition.*—He has a large number of copper-coloured spots on forehead and cheeks, scaly circular spots of copper and rose colour on the back, and very slightly on the arms; and on the legs he had several large sores, which have just ceased to discharge. He still vomits much of what he takes, though less than he did; there is no bile in the vomit. The tongue is furred and sore. Heart and lungs sound, normal. Pulse 84. Urine pale, straw colour, albuminous; sp. gravity, 1023.

"During his stay in the hospital he suffered much from uncontrollable diarrhœa and vomiting, and grew very much emaciated before his death.

"The *post-mortem* examination was made by Dr. Fagge. The *membranes* of the brain were opaque, and the *brain* itself anæmic. . . . The mucous membrane of the stomach was pale, and markedly lardaceous. The *intestines* were lardaceous in a most marked degree. The *liver* was lardaceous, and apparently also fatty. The *spleen* was lardaceous. The kidneys were atrophied, weighing only 7½ oz. together, &c."*

The following case was under the care of Mr. Cooper Forster, in the same hospital.

Case LXXV.—*Syphilitic deposits in the liver, spleen, and testes. Death.*

"The patient had had syphilis, and was in a most wretched condition, wasted and sallow. His shin-bones were very much enlarged, and he had not been able to work

* *Guy's Hospital Reports*, vol. xiii., 1868, p. 329.

for two or three years. The patient died two days after admission (31st March).

"*Autopsy.*—The following is Dr. Wilks' account of the autopsy:—There were no sores on the body. The shin-bones were very much hypertrophied. . . . . The liver was large, and of a pale yellow colour, very firm and granular. It was cirrhosed, as seen by the nodulation. There also appeared much fibrous tissue in it, and apparently some amorphous, albuminous, or lardaceous matter. The spleen was very large, and weighed $2\frac{3}{4}$ pounds. It was very firm, and contained large masses of albuminous or lardaceous matter of a tough character and yellowish colour. There was a large mass of this, and several diffused nodules likewise. The kidneys were healthy. The testes were large, and very hard; one was nearly destroyed by fibrous exudation in the structure, as well as in the form of nodules, &c."

The following case, under Dr. Wilks, in the same hospital, presents several points of great importance as to the virulence of the syphilitic poison.

CASE LXXVI.—*Lardaceous disease of the liver and spleen. Disease of the bones of the nose. Ulceration of the throat. Death.*

"F. P., aged 21, was admitted into Guy's Hospital, Oct. 31, 1861, for sore throat and discharge from the nose. There was no opportunity of getting any very early history of his case. His mother was a most disreputable woman, but there was not obtained any actual evidence of syphilis. He said that he was first ill two years and a half ago, and then suffered from sore throat, when he was under the care of Dr. Addison for many weeks. He recovered and kept well for a short time. Since, however, his throat became affected,

and a piece of bone came away from each nostril. His nose was flattened, and the septum appeared destroyed. There was a hole in the palate, the uvula was gone, and the palate seemed fastened to the posterior wall of the pharynx. He was thin, pale, and his skin was dirty-looking. His teeth were irregularly placed, but not malformed. His legs were œdematous, and the urine contained albumen. The liver and spleen were enlarged. He died on December 26.

"*Autopsy.*—The body was wretchedly emaciated. . . The *liver* was closely adherent to the diaphragm and to the stomach below. The *spleen* was also adherent to the surrounding parts. The liver was very heavy, and lardaceous throughout. The spleen was about four times its usual size, and firm. The kidneys were much enlarged, pale, and firm." —(*Medical Times and Gazette.*)

I have introduced these cases in order to point out more distinctly what I stated at the opening of this work, that these very serious diseases arising from syphilis are no longer left, as they were during the last century, to quacks and charlatans; but that they are receiving the gravest consideration and attention from the profession at large. I wish to show with what untiring devotion to the wants of suffering humanity, leaders of the profession are pursuing the investigation of this long-neglected but most momentous class of diseases. There is not any branch of medical science and practice which is of such deep interest to the community at large, and to the profession; hence it is a blessing that there is no longer that reticence and timidity in approaching the subject which so long stood in the way of any real and earnest investigation. Immense strides have been taken in acquiring an accurate knowledge of the phenomena of syphilis, and the deep-seated and destructive operations of the virus upon the several viscera. Now that

a greater intimacy with syphilitic pathological phenomena has been attained, this terrible disease has been discovered to have invaded every tissue and locality of the body, corroding the seats of life, and often baffling every effort of science to arrest it.

The cases just cited prove incontestably how serious these lesions are, and how fatal unless they are treated early and specifically, before they have so far disorganised the viscera and tissues as to arrest their functional operations.

The existence of an able phalanx of careful and industrious observers, who are now earnestly pushing on their researches in the pathology of syphilis throughout the medical schools of Europe and America, is an encouraging fact, and will rapidly hasten a much better acquaintance with the phenomena and treatment of syphilæmia. This increased knowledge, which is already distinctly apparent everywhere, will open up a wide field of observation, and bring to light much that is yet unknown in the pathology and treatment of the disease.

The momentous period of syphilis commenced so late as 1856. Among the distinguished men in the profession who are now the recognised authorities on these questions, and have lately thrown much light on them, may be mentioned Ricord and Lancereaux, Diday, Viennois, Hubbenet, Sigmund, Von Bärensprung, Astruc, Portal, Cullerier, and Frerichs, on the Continent; Bumstead, and Yandall, of America; Henry Lee, Jonathan Hutchinson, Berkeley Hill, Acton, Parker, Wilks, Thompson, and Althaus, of England.

CHAPTER VII.

Syphilitic Disease of Bones, Joints, and Muscles.

S. DISEASE OF THE BONES.—This is a branch of the subject that will furnish many illustrations of the operation of the syphilitic taint, and under circumstances readily and frequently mistaken for disorders of another nature, and having a less serious origin. Pains of bones, muscles, and ligaments are so exceedingly common, that they are almost universally set down as of a rheumatic character, especially when no immediate cause for the ailments can be traced. Every surgeon knows, nevertheless, how many such cases present themselves before him as simple rheumatism—according to the story of the patient—which really are not, but which are of syphilitic origin and character. It is often difficult to get at a truthful history of the patient's antecedents, but usually, in connection with the pains complained of, there will be found phenomena of such a kind as will at once neutralise any design on his part to deceive, or dispel any doubt. It is a rule with me to investigate the character of obstinate rheumatic affections very carefully, in order to ascertain that they are truly idiopatic, and free from complication with syphilis. This habit has been of real service to me in such cases, and I am correct in saying that it has released me in many instances from a great deal of unnecessary trouble that would have fallen upon me by the attempt to treat and cure a disorder of the bones or muscles of syphilitic complication, not believing or knowing it to be

so. There are thousands of persons carrying about with them diseases of the tissues now under consideration, which they believe to be simple rheumatism, that will never be cured until they are treated for what they are—viz., syphilitic lesions, infiltrations, and deposits.

One striking and almost invariable feature or symptom about the pains which occur as syphilitic rheumatism is, that there is generally exacerbation or increase of them at night in bed. This with most people is an invariable rule, and is the more distressing because it deprives the patient of rest and sleep, and thus wears out his energies and augments his sufferings. The causes of these nocturnal exacerbations are not yet very satisfactorily accounted for. By some they are supposed to arise from the warmth of the bed; but this is not sufficient, as the same warmth of the bed during the day does not always produce the same effect. Others have judged it to be caused by some meteorological influence; and should the latter be an approximation to the truth, the reason will be found in the ordinary electro-vital change which occurs in all animals during the twenty-four hours, and especially after sundown. It would thus appear that the syphilitic virus has the property of reducing the power and volume of the electro-vital currents, and as it were demagnetising the great vital magnet, as the human body has been very correctly named. Those writers who attribute the pains to meteorological influences, doubtless mean to convey some such idea as the one I have hazarded. There are many cosmical laws operating around us and in us which we do not yet discern, but it is already apparent to many of the leading minds of Europe and America, who have made electro-vital and psychological phenomena their special study, that we are, in certain diseased states, especially brought under the influence of unknown forces. I attribute the peculiar nocturnal exacerbations of syphilis

to some of these yet occult influences, believing as I do that such a disease cannot be in the system as a constitutional affection without deteriorating the vitality of every portion of the organism, and especially the nervous fluid.

It has been said that men whose avocations transform night into day—*i.e.*, work at night and sleep in the day—reverse the usual period of pains; but this I have not found to be the case, the opposite being the rule. These pains very often are exceedingly severe, and their seat appears to be between the body of the bone itself and the periosteum, as though the latter were being separated from the former. There is also extreme tenderness in the part that is said to ache. The pain, however, does not always co-exist with swelling, as it may be felt long before any external phenomena, such as nodular swelling, take place. There is nevertheless a serious organic change going on wherever these pains are severe—either a slow kind of inflammation which gradually causes disorganisation of the bones, or between the bone and the periosteal covering; or there might be infiltration of all the adjoining tissues. The existence of such pains should be a forcible admonition to the subject of them to obtain the best assistance within his reach, as they may end in caries and necrosis of the bones. One cogent reason for promptitude in this matter is, that this bone-pain is one of the later symptoms, and is indicative of a very far advanced condition of the constitutional affection. In my own practice I have known it to be several years after the appearance of the early chancre, and in almost all cases to be the prelude to very serious organic changes.

SYPHILITIC DISEASE OF THE BONES.—The bones, like every other organ of the animal economy, are liable to *tertiary* syphilitic invasion, declaring itself in the form of nodes or soft tumours, inflammatory enlargement, dense or

hard tumours, ulceration, and finally mortification or death of the bone. It has fallen to my lot to treat a very large number of these cases, and I find they most frequently occur in persons whose health has suffered from intemperance, exposure, and insufficient nourishment, and whose blood is thereby reduced to a low state of vitality. Tertiary syphilis generally attacks the bones which are thinly covered by soft tissues, as the bones below the knee, the bones of the fore-arm, the collar-bones, the bones of the nose, skull, palate, and upper jaw. (See Plates.)

Three types of syphilitic bone disease are observed. They are—(1) The elastic nodular tumour, (2) the soft fluctuating nodule, and (3) the syphilitic hypertrophy of bone.

Nodes or elastic tumours evidence themselves as circumscribed swellings of an ovoid shape, somewhat elastic to the touch, and ranging from half an inch to an inch and a half in diameter. They begin beneath the periosteum, or surface of the bone, as an inflammation, which is followed by the deposition of a gummy substance of the character of what is termed scientifically caco-plastic lymph.

As the disease progresses, the pain and tension at the site of the node is often very excruciating, more especially when the patient is warm in bed. The part is so sensitive that the slightest pressure cannot be borne. These gummata or

* "Volkman gives the appearances presented by the tibia, after death, and we may presume that precisely similar changes had taken place in the fingers. The periosteum was loosely attached and readily stripped off, and between it and the bone a small cheesy mass was found. The microscope showed the exterior layers of the periosteum to be normal. Inside of this was a layer of fusiform cells which, further inward, became more numerous, smaller, and rounder, while still further towards the bone they lost their cellular character, and finally presented the appearance of fatty detritus. This cheesy mass was situated immediately upon the bone, projecting by tubular prolongations into the Haversian canals, while upon the bone new periosteum was forming" (Taylor).

nodes may appear on the skull, the shin-bones, the sternum, clavicle, and ribs. For the relief of the pain in these cases, there is nothing so reliable as deep incisions with a bistoury, and then dressed with warm opiated water, and the lint covered with thin waterproof sheeting. The nodule, at first hard, becomes, by cell multiplication and fatty degeneration, fluescent, forming an elastic and fluctuating tumour beneath the periosteum, which resembles in its early stage a chronic abscess. The periosteum and bone at the seat of the node may become acutely inflamed, softened, and ulcerated; the skin may finally give way, and thus allow an escape of pent-up fluid. The course of a node is usually chronic, is often attended with severe pain, which is neuralgic, of an intermittent character, and invariably worse at night. There is generally great constitutional disturbance, and the health gives way. Caries, or ulceration of the bone, occurs in the shin-bones, skull, palate, and jaw-bones, and the bones of the nose; large pieces frequently dying and sloughing away, causing the most frightful mutilations and disfigurement.

The part most conspicuous for its ravages is the countenance, which suffers from destruction of the bones of the nose, with consequent flattening of that organ, which may be altogether hopelessly destroyed. I have seen skulls completely riddled by ulceration, accompanied by the most loathsome discharge.

When fluctuation is present in these cases, every care should be taken to prevent destruction of the bone. A free incision should be made into the swelling. When its contents are evacuated, the wound should be stuffed with lint soaked in carbolic acid, and water dressing, covered with waterproof sheeting, applied.

Syphilitic hypertrophy usually attacks the shaft of the long bones, the surface of which often presents a nodular

appearance. The bone generally becomes enlarged both internally and externally, and its cancellated structure may become hard, thickened, and condensed. This condition is characterised by the pain in the bone being fixed and persistent. The pain is caused by pressure of an increased formation of bone, and when the pain is so severe as to threaten to wear the patient through the want of sleep, a piece of bone should be removed by means of the osteotrite or trephine. I have seen such a procedure followed by complete amelioration of the symptoms in a few hours. The wound should be washed out every day with a weak solution of permanganate of potash, and the water dressing before alluded to constantly applied. I presume of course that the patient at the same time is under specific treatment.

CASE LXXVII.—*Syphilitic nodes on the shin-bone of the left leg, and on the frontal bone of the skull, with caries of the right collar-bone.*

H. T., a digger from Hokitika, New Zealand, came to me about twelve months since, complaining of ulcerated throat, loss of flesh, and great debility. He said that he had had chancres seven years ago in Adelaide, during the treatment of which spots of syphilitic roseola (as I judged them to be from his description) appeared all over his body; but although the soreness of the ulcer and the eruption completely disappeared, he states that for eighteen months afterwards there was "a hard substance" to be felt where the chancre had been. By slow degrees, however, this induration subsided, and since then he has been sorely troubled with what he thought was rheumatism, and has taken large quantities of medicine for it. Latterly his attention was drawn to some "lumps," as he termed them, on the shin-bone, which were exceedingly tender, followed by others of

a similar character on the forehead and collar-bone. The swelling on the latter became very large and more painful than the rest. The skin was intensely red, and finally gave way, followed by a very disagreeable discharge.

When first seen by me, he presented a most pitiable appearance. He was very cachectic, and extremely emaciated; his spirits were broken, and his nights were distressing from want of sleep. On the forehead there were several well-defined nodes, which were tender on pressure. The collar-bone at its middle was twice its normal size, and the skin had ulcerated over this portion of the bone, from which exuded a sanious, ichorous, and extremely offensive discharge. On the left leg there were tumours analogous to those observed on the skull. At the posterior part of the pharynx a large ulcer could be seen, which gave him great pain on swallowing. He had also lost nearly the whole of his hair. The course of anti-venereal treatment in this case extended over a period of eight months, and terminated in complete restoration to health. The local treatment was strictly in accordance with the principles already laid down.

CASE LXXVIII.—*Tertiary syphilitic disease of the bones of the leg. Chronic syphilitic arthritis. Swollen ankles, wrists, and knees. Emaciation. Cured.*

Mrs. M'S. called upon me, and said she had been married eight years, prior to which she had enjoyed good health. Twelve months after marriage she suffered from sores in her genitals. These were treated and healed up, and she seemed in tolerable health until three years ago, when she began to suffer from pains and swelling of the joints, which she said the doctors called rheumatism. After undergoing a course of treatment for this so-called rheumatism, she noticed lumps growing on the shin-bone of the left leg. She was then

directed to take cod-liver oil, as from her emaciation she was considered to be consumptive; but as this treatment did not seem to better her condition, she was advised to try change of air from the country to town. On her arrival in Melbourne she put herself under my care. I observed that she was much reduced in flesh, being exceedingly emaciated; she also had a short, dry cough. She complained of pain in her ankles and the bones below the knee, where I found several well-defined soft syphilitic tumours, pressure on which gave her great pain.* The ankles, wrists, and knee-joints were swollen (especially the latter, which were enormously so), of a globular shape, very like the "hydrops articuli" of chronic rheumatic synovitis. The pain that she suffered at night, especially when warm, she described as something awful. The simile she used was that she felt as though dogs were gnawing her legs and joints. I ordered her hot baths at 90

* "When gummy tumours are developed in localities where the connective tissue is very loose and abundant, as, for instance, over the glutei or gastrocnemii muscles, at an early stage they may be recognised as small, moveable, and isolable tumours, over which the integument can be easily moved, and, if followed later on in their course, they will be found to have become adherent to the derma, and perhaps to the very deep tissues, and then to be no longer isolable. But I have observed that this condition is not generally found when these tumours are formed over bony surfaces, where the integument is somewhat closely attached and the connective tissue is not so abundant. Here they are generally found, even at their commencement, to be attached to the deep layers of the corium, which cannot be moved over them; and in some instances they, from the first, appear to reach the periosteum. This condition is readily observed when the deposit occurs over the anterior or subcutaneous surface of the tibia, over the malleoli, and sometimes over the sternum. No observer has as yet found the isolable condition of the gummy tumour in the fingers and toes, but in each instance, in my case particularly, it was adherent to the corium; and I am inclined to think, from the anatomical structure of these organs, that it is generally developed as it is over the tibia, and consequently will not be found as an isolable tumour, over which the integument will freely slide" (Taylor).

degrees, containing the perchloride of mercury and hydrochlorate of ammonia, and I allowed her a liberal diet. She took internally a mixture containing perchloride of mercury, iodide of potassium, and carbonate of ammonia, with tincture of bark, three times daily, and a half-grain morphia pill at bed-time. This mixture was taken for three months without causing ptyalism or iodism; she had a good appetite the whole time, and I soon had the satisfaction of seeing her gain flesh and lose the cough, the nodes of the bones and the swelling of the joints entirely disappearing. When she returned to the country, her friends looked upon the case as one of consumption cured, little thinking for what disease she had been treated during her stay in Melbourne.

These cases will suffice to point out the serious nature of the lesions which occur in the tissues now being considered. Many of a more horrible character might have been described, but I have withheld those cases which present the more revolting phenomena of syphilis. I will present an extract from Virchow's great work on constitutional syphilis, published in 1859, in which he gives a detailed description of the ravages made on the bones of the head by this serious disease, and which forcibly reminds me of cases that have come under my own observation. The following is a brief sketch:—"In the bones of the head the process often begins at isolated spots on both surfaces of the bone, proceeding most rapidly and extensively at the external surface. Action commences by the processes of cellular tissue, which pass into the medullary canals from the pericranium or endocranium, increasing in size, while bone tissue is cleared away before them. Presently a shallow, funnel-shaped pit is formed on the surface of the bone, filled with a tissue consisting more of cells than fibres. Besides this pit the canals radiating from the starting point are opened up in a similar manner; those

lying on the surface are converted into tortuous grooves. A bone so altered presents, when macerated, the worm-eaten appearance of the skulls in the museums. This is not the only change. While this excavation and tunnelling is going on, a change of an opposite character is developed in the osseous tissue of the neighbourhood that is condensed; the cavities are filled with calcareous matter, and the thickness of the bone increases by rapid development of smooth hard bone on the surface. By this means an irregular wall or elevation of bone is formed around the excavation, of sufficient height in some cases to be readily felt through the scalp. Gummy nodules often occupy some of the hollows excavated by the dry caries, out of which they may project above the surface, and form even large masses. When this is the case their coverings slowly ulcerate, allow the gelatinous matter to escape, and leave rugged cavities, in which parts of the bone that have undergone condensation remain firmly adherent to the skull, without possessing sufficient vitality to form new bone for closing the cavity. In this way necrosed patches sometimes remain open for several years." Necrosis and ulceration are not the invariable accompaniments of these slow changes in the bone. The covering of the bone may so thicken as to double the size of the bone itself.* M. Boys de Loury gives a case of a young woman, suffering

* "The partial enlargements of the bones called *nodes*, arise only when the system has been much affected by the poison of syphilis: they are the result of effusion between the periosteum and bone, and are perhaps caused by superficial inflammation of the osseous tissue. A careful examination of the sternum, and especially of the lower half, will sometimes detect a tender spot, technically known as *substernal tenderness*. In many of these cases some of the superficial inguinal glands will also be found enlarged, hard, and painless; or even one or more of the posterior cervical glands may be swollen and indurated" (Tanner).

from long-standing syphilis, in which the frontal bone expanded into a mass several inches across. Eventually it caused her death.

CASE LXXIX.—*Syphilitic nodes on the shin-bones. Ulceration of bone. Great destruction of skin. Cured.*

A carpenter on board of one of our intercolonial steamers came under my care in 1869, suffering from a large, ill-looking ulcer on the left tibia, from which exuded a sanio-purulent and fœtid discharge. Three years prior to his visit to me he contracted "indurated chancre," which was speedily followed by secondary symptoms on the skin and mucous membrane. Twelve days subsequently, he noticed a swelling or "lump" on the shin-bones, which gave him the most excruciating pain, especially after he had "turned in." In addition to the ulcer on the left leg, there was a large unbroken node on the right tibia, which was painful on pressure. His hair had fallen off considerably, and he had on the tongue fissures and "milk-white stains" in their most characteristic stage of development. On the dorsum of the tongue there was a well-marked gummatous tumour. He was a temperate man.

On looking over his prescriptions, I found he had taken immense quantities of potass iodid, and with very slight amelioration of the symptoms. I therefore at once placed him under a mercurial course of treatment, allowed a liberal diet, and gave him an alkaline hot bath every third day. In about a month mercurial symptoms manifested themselves in the gums, and sublingual glands, and I at once put him upon chlorate of potash, and hydrochloric acid, with tincture of gentian, and in eight days after taking this mixture the condition of his mouth was quite normal. Under this treatment his improvement was

most rapid, and I therefore resumed the mercurial treatment according to the following formula—viz., perchloride hydrarg., acid hydrochlor dilut., syrup of orange-peel, and infusion of quassia. This mixture he took steadily for three months without affecting his gums, and at this time the whole of the symptoms had disappeared. I then gave him the syrup of iodide of iron, as he was a little anæmic, and allowed him bottled ale, and claret.

The deep excavated ulcer on the shin-bone was at first mopped out with strong carbolic acid every day, and simple water dressing applied, covered with oiled silk. When the diseased surface was replaced with healthy granulations, a lotion, composed of chloride of zinc, Battley's solution of opium, and distilled water, was kept constantly applied. The leg healed rapidly. I may here mention, that after the first month he continued to discharge the duties of his calling on board of ship until the cure was complete, which occupied some months. He has not had any relapse since, and is healthy and robust. No iodide of potassium was given in this case.

SYPHILITIC DISEASES OF THE JOINTS.—The joints are not so frequently the seat of syphilitic lesions as the bones themselves, hence the records of the disease in these articulations are at present comparatively few; still it may be that the field now explored by the European physiologists and pathologists, will bring considerable additions to our as yet meagre examples of such lesions. Mr. Berkeley Hill has evidently been at some pains to search for cases in which it has occurred, but has not been able to find many authorities who have witnessed it. I have not seen much mention of such lesions in the works which I have consulted. Lancereaux gives some cases of syphilitic effusion into the knee-joint which are characteristic, but they are rare. Others

have not met with them, and amongst these Mr. Coulson, the eminent surgeon, of London. Some continental writers have mentioned a few cases which appear to have been well marked. In my own practice I have only met with a few cases, which I judged to be sufficiently distinct to warrant their being recorded as reliable illustrations of this particular lesion.

That which last came under my notice presented the following phenomena:—There was tenderness on pressure upon both the inner and outer aspects of the joints, with puffiness in the cellular tissues. The pains were not severe, weakness, uneasiness, and lameness being the chief causes of complaint; but whatever was experienced was chiefly at night. The state of the joints varied considerably, being much worse on some days than on others. At the same time the patient had an impetiginous eruption on the skin, of a syphilitic character, with distinct syphilitic ulceration of the throat and tongue. The synovial membranes and bursæ of the joints were evidently the seat of some morbid irritation, and yielded only to the course of treatment that was prescribed and adopted for the removal of the cutaneous syphilide. Local applications of various kinds had been freely employed, under the impression that synovial rheumatism was the cause of pain and lameness, but nothing of that kind seemed to afford any amelioration. It was remarkable, however, that when the anti-syphilitic remedies were commenced, the pains in the knees were the first to cease as a symptom, completely disappearing in three weeks. This circumstance I think worth noticing, because so little attention has hitherto been given to it. In more than one case, I have observed that pains in the joints have rapidly disappeared under anti-syphilitic treatment, but the fact did not generally obtain much notice from the patients in the presence of more serious evidences of this disease.

Syphilitic disease of the joints consists in the deposiure of tertiary gummata in the deeper structures characterised by deformities. Chassaignac was the first to call attention to articular lesions of this kind, in 1859.* Professor Lüche, of Berne, has recorded two cases.† And Nelaton has published the following:—A man, aged 50, suffered upon three occasions with swelling of the right middle finger. The augmentation in volume was mostly developed in the first phalanx, a little less in the second, and scarcely any in the third. The whole of the first phalanx was involved, and more especially upon the palmar than dorsal aspect. Movement was impaired, and pressure induced pain. The integument was stretched and livid—under an anti-syphilitic treatment it subsided. (*Gazette des Hôpitaux*, 1860, p. 105.)

The following cases are reported by Dr. Lüche.

"1. A syphilitic man, aged 45, having nodes upon the sternum, and a swelling of the sterno-clavicular articulation, observed, in April, 1860, that the little finger of his right hand, and the great and second toes of the left foot and the second toe of right foot, became enlarged. The left knee became swollen and painful, and its articular capsule became thickened, and fluctuation could be felt. Soon after the left little finger enlarged. The swelling in the toes and fingers consisted in a uniform enlargement of all the phalanges, except an unusual swelling at the second phalanx of the right great toe. The integument was red and tense, and the articular cutaneous furrows were effaced. Crepitation was readily heard between the articular surfaces of the phalanges, and abnormal movement existed, particularly in the little finger, the joint of which was quite loose. The

* *De la Dactylite Syphilitique, Clinique Europiene*, p. 238.

† *Die Syphilitische Dactylitis, Berliner Klinische Wochenschrift*, 1867.

patient had, besides, an inflammation of the body, and articulations of the fourth cervical vertebra, which interfered with the maintenance of the erect position of the head. Under a mercurial treatment, the swelling in the fingers and toes subsided in about three months.

"2. A man aged 50, having had very severe syphilitic lesions, particularly gummy deposits in the bone and connective tissue, and painful enlargement of the knee and wrist, noticed that his right great toe swelled gradually and uniformly, and was soon followed by swelling of the second toe of the left foot. The swelling was due to a uniform enlargement of the phalanges, and a simultaneous thickening of the soft parts. Movement was impaired, but pain was absent. The integument of the toes of this case also was tense and resistant. At first he was treated by mercurial inunctions, which caused some coexisting gummy tumours to disappear, but the swelling in the toes remained. Crepitation could be distinctly heard in the phalangeal articulation of each toe. The gummy tumours, which had healed, became ulcerated again, and the great toe became much larger. The phalangeal articulation of the second left toe became opened by ulceration, and a very distinct and harsh crepitation was heard. Under a tonic treatment and the use of iodine, the toes subsided to their normal size in about ten months."

The following case is both interesting and instructive.

CASE LXXX.—*Syphilitic disease of the joints treated in India as rheumatism. Inability to walk. Cured by specific treatment.*

M. L., aged 30, from Madras, was assisted into my consulting room, in 1869, apparently in a helpless condition. He said he could not walk without assistance, and he could

scarcely raise his hands to his head. He also said he could not sleep at night, owing to the pain, which, although tolerably persistent, invariably became worse when in bed. He produced a whole pile of prescriptions which had been given to him in India, many containing large doses of iodide of potassium, and colchicum, none of which appeared to afford him more than temporary relief. The doctors there advised him to take a change of air, and suggested Australia to him as a more genial climate, and one well calculated to aid the therapeutic art in his ultimate recovery. He arrived in Melbourne a few days only before I saw him.

His antecedent history was to the effect that he had suffered from chancres and bubo about two years ago; these were followed by a copper-coloured rash all over the body, and sore throat, for which he placed himself under medical treatment. After taking medicine and baths for some time, the skin cleared off, and the throat became well; but simultaneously as these symptoms disappeared, the whole of the joints of the upper and lower extremities became painful. These symptoms were regarded by his medical advisers as rheumatism; and sulphur baths, with alkaline mixtures, and sedatives, prescribed. The joints then became much swollen and more painful, when colchicum, iodide of potassium, and aconite, replaced the former mixture.

To be brief, I may add that he was under treatment in India for nearly twelve months, when his case was regarded as one of chronic rheumatism, rebellious to treatment, and hence the advice tendered as to climatic change. On stripping him, I found most of the articulations swollen, but more especially the knees and ankles, and tender on pressure. The swelling was not, as in ordinary rheumatic inflammation, elastic and yielding, the effect of effusion, but it was more firm and doughy, which conveys the feeling of physical alteration in the fibrous structures of

the joints. However, from the antecedent history, together with the symptoms, I came to the conclusion that it was a case of *Articular Syphilis,* and at once commenced treatment in accordance with that opinion. I gave him hot baths, containing the perchloride of mercury, and hydrochlorate of ammonia, every third day; and prescribed, internally, perchloride of mercury, chlorate of potash, and bark, and injected a quarter of a grain of acetate of morphia hypodermically every night. I gave him a most nutritious diet, allowed him a bottle of claret daily, and ordered him to wear a flannel night-shirt. This medicine never affected his gums, and I am proud to add, that in eight weeks from the time I first saw him he was dancing at the assembly ball in Melbourne.

Syphilitic disease of the joints admits of a division into—(1) Where it attacks the subcutaneous connective tissue, as well as the fibrous structure of the articulations; (2) in which the diseased action commences in the bones and periosteum, and extends to the joints by secondary implication; (3) the synovial membrane may also suffer from syphilitic degeneration, and effusion may take place into the joint, through inflammatory action, caused by gummy deposition in the connective tissue.

Richet* and Lancereaux† have described a thickening of the synovial membrane of the knee, accompanied by effusion into the joint, and severe nocturnal pains. In some of the cases which presented these symptoms they found, after death, gummy material in the teguments and beneath the synovial membrane.

The fingers and toes also may become seriously affected by gummy syphilitic deposits. Dr. R. W. Taylor, in his

* *Mémoires de l'Académie de Médicine*, vol. 17, 1853.
† *Traité Historique et Practique de la Syphilis*, 1866.

work on *Syphilitic Lesions of the Joints*, observes:—"This variety of dactylitis syphilitica, then, consists in a copious gummy deposit, both in the connective tissue and the fibrous structures of the joints, with a much less copious deposit in the phalanges. It may be developed in a single finger or toe, or it may involve more than one of either of these members, and may even involve one or more of each at the same time. It usually attacks but one joint, and in all but one of the recorded cases—in which it occurred in the second—it has been the first phalangeal joint. The swelling may thus be confined to one phalanx, it may shade off into or wholly involve the second, or may uniformly enlarge the whole of the finger or the toe. As will be seen further on, this variety differs from the second, in the fact that the principal deposit is in the connective and fibrous tissues, whereas in the latter the principal seat of the morbid process is in some portion of the bone.

"The clinical facts which are now in our possession do not allow us to state decidedly that the lesion of the bone only progresses to a very moderate degree, as shown by a not very extensive enlargement of those structures in Lüche's case and in my own. But it is to be fully taken into account, that in all of these three cases an active anti-syphilitic treatment was quite early adopted, and this perhaps materially held in check the lesion in the bone, whereas, had it not been adopted, the bone-enlargement might have become as formidable as in the cases of the second variety. This lesion generally coexists with grave lesions of the bones, joints, integument, and viscera, and is always the expression of a profound syphilitic dyscrasia. It is generally observed in patients who are past middle age, though in two of Erlack's cases it occurred in young persons. In four out of the seven cases, it was observed in men. We are unable to definitely fix its period of evolution, but, in the present state of our know-

ledge, we may state that it may occur both early and late in the tertiary period."

Professor Lüche also refers to three cases observed by Dr. Erlack, but does not give their details.

"1. A syphilitic woman, 48 years of age, had an indolent enlargement of the phalanges of several fingers, which was cured in about eight months.

"2. A young woman, having had a general rupial eruption, had a uniform enlargement of several of the articulations of the fingers.

"3. A young woman became syphilitic in July, 1855, and in the month of September noticed a thickening of the articulations of the fingers."

"The *diagnosis* of these lesions is of the utmost importance, for when their syphilitic origin is recognised an appropriate treatment may prevent serious destruction, and at least materially lessen the ultimate deformities. The subcutaneous variety of dactylitis syphilitica might, in its early stage, be mistaken for paronychia, or the subperiosteal and subcutaneous inflammation termed whitlow; but the absence of acute inflammatory symptoms, pain especially, would readily eliminate these affections. When the lesion occurs in the great toe it might be regarded as gout, but here, again, the absence of acute invasion and pain would soon point out the error. In the instances in which the lesion is developed in several fingers and toes, particularly when accompanied by trouble in the large joints, it might be looked upon as rheumatoid arthritis, especially as the two lesions are unaccompanied by febrile reaction. But rheumatoid arthritis is essentially a lesion of the joint-structure, not involving the integument. It attacks the metacarpo-phalangeal (and rarely the metatarso-phalangeal) articulation much more frequently than those of the phalanges, involving, in most instances, the sheaths of the

tendons, generally the flexors, leaving a deposit of small tophaceous nodules along the course. Its deformity commences with the inception of the lesion, and has a tendency to draw the fingers to the ulnar side of the hand, and to flex and extend them in various positions, and moreover minute tophi are to be found coincidently in the cartilages of the ear. Besides these symptoms, the crepitation of rheumatoid arthritis is of a dry, harsh character, and is also observed in the tendinous sheaths, and commences quite early in the affection. In the syphilitic joint-lesion there is generally a history or concomitant symptoms of syphilis ; the swelling does not usually involve as many joints, is mostly observed upon the dorsal surface, and rarely if ever upon the palmar surface, or in the sheaths of the flexor tendons ; the swelling is at first subcutaneous, and the joint-lesion is usually discovered afterwards ; and the crepitation, which is not heard early, is of a softer character."*

SYPHILITIC DISEASE OF THE MUSCLES.—The muscles as well as the bones are attacked by syphilis, and that, too, in a painful degree. The muscles of the fore-arm and legs, as well as those of the scapula and tongue, become the seat of syphilitic degeneration. The tongue frequently exhibits nodules in its muscular substance, and hard lumps of fibroid tissue are not uncommonly met with in the general muscular system, sometimes enveloping the muscular fibres in their mass.† The tendons of the extremities also become thickened and contracted, giving to the fingers and toes a most unsightly appearance. Tumours of the peculiar syphilitic type have been found in nearly every large muscle of the body, and even in the diaphragm,‡ as

* *On Syphilitic Lesions of the Joints*, by R. W. Taylor, M.D., p. 29.

† *Pathological Transactions*, vol. xi., p. 246.

‡ Dr. Murchison, *Pathological Transactions*, vol. xiii.

well as in the laryngeal muscles.* Their distribution in the muscle is very general, occupying several parts of them at once, the tumours being found imbedded everywhere in the mass, and often in the tendons, their origins and insertions.

That these tumours produce contraction of the muscles, M. Ricord makes mention, in one of his lectures,† in the following words:—"As soon as this syphilitic degeneration begins, the muscular tissue, which seems to undergo a sort of coagulation, contracts; but this contraction is hardly noticeable so long as the muscle gets (painlessly) shorter. The phenomena which I have pointed out as marking this affection in the testicle, reappear in such a case. There is first a simple plastic degeneration, which may, by proper treatment, entirely disappear, without any sort of deformity being left behind; but if the disease is allowed to reach a more advanced stage, the result may be either a complete atrophy, through re-absorption, or a fibrous, fibro-cartilaginous, or osseous transformation. In the latter of these two cases, there is shortening of the affected muscle. This degeneration generally attacks the flexor muscles, as for instance the biceps, &c. I have seen this plastic alteration situated in the anterior part of the leg, causing a flexion of the foot; I have also observed the same affection in the gastrocnemii. I remember a celebrated singer who consulted me for such a syphilitic contraction of the biceps, which interfered with the proper use of the arms on the stage. This complaint is not at all painful, and the patients become aware of it simply by the difficulty they experience in performing the different motions of the limbs. I have seen in the course of my practice cases of complete atrophy

* *Gazette Médicale*, page 543—1846.
† *Lancet*, vol. i.—1848.

of the flexor muscles of both legs." Mr. Acton has mentioned several cases which came under his own observation, both in France and in England. They have also been observed and examined by the great pathologist, Virchow.

Nelaton also has described these tubercles,* and states that they are sometimes so distinct as to be felt when the muscle is contracted. Another leading writer, in a work on constitutional syphilis, gives several cases, and one where the knee was permanently flexed to a right angle by the contraction of the tendons and muscles of the back of the thigh and knee.† Other observers have seen them in almost every muscle, and I have had in my own practice many such nodular diseases of the muscles to treat, and always with good results, save in two instances where I lost sight of the patients, who, after having been a short time under treatment, took their departure to some distant goldfield. In one of these, there was a deposit on the left pectoral muscle; in the other, the gastrocnemeus of the right leg was the seat of lesion.

The last case is remarkable on account of the locality of the syphilitic deposit, as it is a general rule that the muscles of the trunk, and those of the upper limbs, are most frequently invaded. The man had been treated about five years previously for Hunterian chancre, and about three years ago had suffered from what must have been, according to his own description, a papulous syphilide. He also had at the same time such extensive ulceration of the fauces and the cavity of the mouth, as to be almost unable to swallow. On examination of his body I found some small cicatrices, as though he had been afflicted with *Rupia*, and several isolated coppery-coloured patches, that gave evidence, from the deepness of their tinge, that the

* *Gazette des Hôpitaux.*

† Zeissle, *Constitutionelle Syphilis.*

syphilitic taint was decided. It appears that from the commencement of the eruption, from which he stated he had suffered, it was more than a year and a half before all external phenomena had disappeared, and then the muscle of the calf of the leg became affected. I have not seen him since he left for New Zealand. I mention this case simply to bring into notice the locality of the nodular deposit, as I have not—trusting to my memory—often read of that muscle being especially implicated. The following cases present points of some interest, and will serve as illustrations of the lesions to which the tissues under consideration are subject.

Case LXXXI.—*Contraction of fingers of both hands, and of the right great toe, &c. Cured.*

E. J., from Woodend, consulted me about three years since in consequence of three fingers on the left hand, and two on the right, having become permanently contracted. The great toe on the right foot was also contracted so much as to give him great uneasiness in walking. The fingers were so much flexed that their tips nearly approached to the palms of the hands. (See plate.) I learned that some years ago he contracted syphilis with double bubo, for which he was treated in St. Thomas's Hospital, London. Soon after his arrival in this colony he suffered from ulceration of the tongue, together with nodes of a syphilitic character in his forehead; and three years since noticed that his finger-joints became painful, but especially so at night. Since then they have been slowly contracting. At the time that I saw him there appeared to be dense masses of fibrous deposit over the second and third joints of the fingers, which I cut through with a bistoury subcutaneously; placed the fingers on splints; and after a course of anti-syphilitic treatment he

completely recovered. The proper use of the fingers was fully restored. Since I have been in practice in this country, I have treated many such cases.

CASE LXXXII.—*Contraction of fingers. Cicatrices on the forehead. Syphilitic nodes.*

This patient stated that ten years ago he had a chancre on the left groin. Three years subsequently he suffered from secondary syphilitic psoriasis, with ulcer of the tongue, fauces, and throat; at the same time he had swelling of the joints, and nodular swellings in the shin-bones, which were painful at night. After a long course of treatment these symptoms in a great measure subsided, and he thought he was well, until he felt pains in his fingers, and found that he could not straighten them properly. When first seen by me, he had syphilitic cicatrices on the forehead, and nodes were still visible on the shin-bones. His fingers were contracted and drawn to the palms of the hands, as in a preceding case. Upon the first and second joints of the fore-fingers there were fibrous deposits, which were extremely hard. These structures were divided under the skin with a tenotomy knife; the fingers were forcibly distended, and placed on finger-splints. A course of anti-syphilitic treatment was then commenced, during which the fingers were repeatedly extended and flexed, to restore the proper functions of the joints. The whole of the "materies morbi" was absorbed. When he left he had recovered perfect use of his hands, the nodes on the shin-bones had disappeared, and he became stout and high-spirited.

At a meeting of the Pathological Society of London, held 6th December, 1859, Mr. Sydney Jones exhibited specimens of syphilitic tumours in muscles. He said:—"He considered that these tumours were deposits depending on

syphilitic inflammation of the muscle. He alluded to a specimen of tumour of the muscle on the dorsum of the scapula, which he had exhibited three years ago. In this case also there were isolated deposits in the latissimus dorsi and teres muscles, and those on the venter of the scapula. He had also seen such tumours on the sterno-mastoid."

The specimens he showed were from a woman, aged 30, who had severe and well-marked syphilis, with caries and necrosis of the bones of the skull, nodes on the periosteum, &c. There was a tumour two or three inches in length in the triceps, and there was also dead bone in the neighbourhood of these lesions.

A large number of cases of this class have presented themselves for treatment during my residence in Victoria, where, I believe, as much disease of a syphilitic character can be seen, in proportion to its inhabitants, as in any part of the world.

The synovial sheaths of the tendons may become the seat of gummy tumours. I have only seen one case in Victoria. Verneuil* and Fournier† have observed inflammation and dropsy of the synovial sheaths, but they have not found any to be the seat of gummy deposits. A case of gummy tumour of the third extensor tendon, which was seated over the middle of the metacarpal bone of the fore-finger, is reported by Van Oord.‡

* "De l'hydropisie des gaînes tendineuses des extenseurs des doigts dans la syphilis secondaire."—*Gazette Hebdomadaire*, No. 39, 1868.

† "Note sur les lésions des gaînes tendineuses dans la syphilis secondaire."—*Gazette Hebdomadaire*, No. 41, 1868.

‡ *Des Tumeurs Gommeuses Thèse de Paris*, pp. 44 and 45. 1859.

CHAPTER VIII.

Syphilitic Diseases of the Urinary and Reproductive Organs.

SYPHILITIC DISEASE OF THE KIDNEYS.*—These are the most important excretory organs of the body, and are not exempt from the destructive influence of the syphilitic virus,

* "The *Kidneys* in syphilitic persons are frequently attacked in the same manner as the liver, by slow interstitial nephritis, and by gummy formations. The first form is set up commonly in one or two, sometimes in several points at once. The stroma of the kidney thickens, contracts to some extent, and passes to fatty degeneration at these condensed areas. The glandular structure also suffers by compression from thickening and contraction (cirrhosis) of the interstitial tissue; the cells of the tubules waste, the Malpighian bodies shrink, and their envelopes thicken. This process of cirrhosis is usually confined to a few points, and only by exception pervades the kidney generally. Interstitial inflammation is much more common than the gummy deposits, of which Virchow and Beer have described some examples. A syphilitic kidney has the surface unevenly marked by deep seams. The capsule is tough, adherent to the diseased parts, and leaves the surface rough when torn off. Section shows the cortical substance connected with one or more pyramids to be diminished, harder, and lighter in colour than elsewhere. If a gummy nodule is connected with this cirrhosis, a circumscribed, soft, yellowish patch is found. White seams or lines often pass across the kidney from the pyramid to the surface, with which the gummy nodule may be connected or surrounded. The cirrhosis of syphilis, by thus only partly implicating the kidney, is usually distinguished from that produced by other causes, which besets the whole gland rather than any part of it. During life, albumen and casts are often present in the urine, as in other forms of slow nephritis" (Berkeley Hill).

sometimes becoming involved to a serious extent by the formation of those characteristic gummy deposits which have been so often mentioned as occurring in almost every situation of the body. The importance of the kidneys as emunctories, and the danger when they are invaded by so destructive a force as that of syphilis, may be seen when we consider the nature of the functions that they have to perform. The ordinary quantity of urine that has to be secreted daily by them from the blood current in an adult is about 35 ounces; and the constituents of this fluid are the waste and dead materials of the body, which have served their purpose, and which must be got rid of to preserve health and life.

The kidneys are the most important depurators of the body, ready to excrete in any quantity that which the body requires to be eliminated. Thus, if but a small quantity of fluid be taken into the system, or the fluids pass off freely by the bowels or skin, the kidneys secrete less; should more fluid than usual be drunk, and not induce increased action of the skin and bowels, then the kidneys take the entire burden of excessive excretion upon themselves. The fluid ingested may sometimes be very abundant, and the surplus quantity of water that has to pass off by the kidneys will be proportionate. The amount sometimes may increase during twenty-four hours to as much as 45 or 46 ounces, the solid matter remaining about the same. Anything that could interfere with the functional integrity of the kidneys would, as a matter of course, be of serious import to the whole system, and a retention of the usually excreted matter would inevitably produce speedy death. When the quantity and specific gravity of the urine are increased or diminished at the same time, or when one is diminished while the other remains stationary, either circumstance would show an actual change in the total amount

of solid ingredients, and would indicate an unhealthy and diseased condition of the organs. This takes place in many forms of disease, and in a marked degree in syphilis.

The largest and most injurious constituent, if retained, is urea; next to which are the phosphates of soda, potass, magnesia, and lime. Any excess of these last in the organism must be got rid of by the kidneys, as well as certain chlorides and other materials that are in a state of degeneration. Any serious lesion of an organ having to perform such valuable functions for the body as have just been alluded to, must at once be seen to be a subject for grave consideration. The kidneys are liable to a variety of disorders, more or less serious, which interfere, in a greater or less degree, with the amount and character of the urine secreted. The syphilitic lesion of the organs, often marked by other diseases, makes considerable and threatening changes in their functional action. The kidneys are subject to atrophy, hypertrophy, cancer, fatty degeneration, gangrene, tubercular disease, and to syphilitic gummatous deposits. Syphilis acts in a twofold form upon the kidney, as it does upon the liver; first producing hypertrophy or enlargement, and subsequently inducing atrophy of the organ.

Syphilitic disease of the kidneys is more difficult of diagnosis than any other disorder to which they are subject, but it is usually accompanied by some other palpable evidence of constitutional infection. The most common renal symptom in connection with the syphilitic dyscrasia is albuminuria, or albumen in the urine. This I have found to be present in almost all cases where the kidneys have been involved in the general taint, and in some instances the amount of albumen has been considerable, resembling in this respect "Bright's disease of the kidney;" its main characteristic being the presence in the urine of the abnormal constituent

—dissolved albumen. The quantity I have found to vary from four to two hundred grains in the twenty-four hours, and to be extremely variable in quality. Another symptom that is often referred to by my patients, as distressing to them, is the frequent desire to micturate during the night, when in a horizontal position, which symptom is one of the first to subside during specific treatment. There are also filmy, fibrous materials in the urine, and granular or fatty casts of the tubes, with epithelium. This lesion of the kidneys is especially observable where the constitutional syphilitic dyscrasia is in any degree attributable to hereditary taint.

Albuminuria is one of the most serious diseases that can possibly befall a patient. Cases have occurred where, after many other resources have been tried in vain to control it, it has yielded promptly to an anti-syphilitic and specific course of treatment. A case was recorded by Mr. H. Lee, surgeon to St. George's Hospital, London, in which a person with constitutional syphilis had albuminuria, with nodes on the upper part of the forearm, and caries of one of the ribs, with a considerable discharge from both these situations. He had also great prostration, nausea, and loss of flesh. The patient was completely cured by anti-syphilitic treatment. In those cases which have come under my own observation, I have always found an abnormal quantity of albumen in the urine. It is often surprising what a change a specific course of treatment produces in albuminuria, even when there must have been considerable lesion of the kidneys. *Post-mortem* examinations have led to the discovery that the syphilitic kidney is subject to considerable alteration and degeneration. The usual nodular, cheesy substance, is seen on the surface, and occupying the body of the organ, with fissures here and there, and alterations of different characters throughout the viscus. These

lesions have been observed by Virchow, Lancereaux, Klobb, and others, and are known to yield with more or less readiness and permanency to a cautious course of mercurials, or other remedies of a *specific* character.

CASE LXXXIII.—*Albuminuria. Dropsy of the abdomen. Enlargement of the liver and spleen. Constitutional syphilis. Recovery.*

H. M., aged 26, sent for me in March, 1863, stating that he was suffering from dropsy. He said that the swelling in his abdomen and feet commenced about eight weeks prior to my visit, and had gradually been getting worse. On entering his chamber I at once noticed on his forehead copper-coloured spots; the palms of his hands presented the same appearance. He also told me that he had painful lumps on his shin-bones, which on examination I found to be "nodes." On examining his abdomen it was fluctuating, evidently containing water, and measured in circumference twenty-nine inches below the navel. When placed on his left side, his liver was also found much enlarged. His feet and ankles were doughy, and his face was swollen; his tongue was coated with a brownish fur, was dry, and he had great thirst; his appetite had fallen off, and his bowels were irregular. He complained of cough, and difficulty of breathing, with frothy expectoration. Prolonged expiration and harsh inspiration were heard on the anterior part of the chest; and, posteriorly, crepitating sibilant râles were distinctly audible. The heart's sounds were faint, but there was no morbid sound. The pulse was 74; the skin dry and rough. The urine was scanty, its specific gravity being 1020, and contained albumen on boiling and applying nitric acid. My diagnosis in this case was *syphilitic degeneration of the kidneys, depending upon the presence of the syphilitic*

virus in the system. My treatment being in accordance with this opinion, followed by rapid improvement in the patient's health, and his ultimate recovery, verified the opinion I had formed of his case on my first visit.

CASE LXXXIV.—*Syphilitic disease of the kidneys. Albuminuria. Dropsy. Constitutional syphilis. Cured.*

H. G., aged 39, came under my treatment in February, 1868, and stated that three years previously he had Hunterian chancre. He was a long time in getting better, but did not take much medicine. Soon after the chancre had healed, his throat and tongue became sore, and copper-coloured spots appeared on his face and legs. He had been taking medicines from quacks ever since, but had not derived any benefit therefrom. Latterly his hair and eyebrows had fallen off, and his skin assumed a sickly and yellowish appearance. His appetite was bad. He informed me that he did not become alarmed until his legs were swollen, and his hands became puffy; when this occurred he thought he ought to apply, as he termed it, to a "regular doctor"—hence he consulted me.

When I first saw him his legs were swollen, and pitted on pressure, and he complained of pain in the region of the kidneys, together with a great desire to void his urine. There were syphilitic tubercles on the side of the tongue, in the throat, and at the verge of the anus. On several parts of the body there were well-developed "*acne syphilitica.*" He suffered from headache, and during his sleep he was much disturbed by startings and frightful dreams. He had intolerable thirst, no appetite, and his bowels were confined. Although he had slight difficulty in breathing, I could not discover any disease in the heart or lungs. His urine was most carefully examined, and found to have a specific

gravity of 1015. It contained albumen, which coagulated on applying the ordinary tests. The treatment of this case consisted, first, in the administration of aperients, diuretics, highly-nutritious broths, beef tea, &c., and the regular use of hot-air baths, to relieve urgent symptoms; secondly, a course of anti-syphilitic medicines; and finally, getting up his strength by means of iodised cod-liver oil.

The following interesting case was communicated to me by a medical friend connected with one of the New York hospitals.

CASE LXXXV.—*Constitutional syphilis. Syphilitic disease of the kidneys, lungs, liver, and spleen. Death.*

W. M. B., aged 31, was received into the hospital with the following symptoms:—Difficulty of breathing, distressing cough and expectoration, with profuse night-sweats. On examining his chest, there was considerable flattening beneath the clavicles, with dulness on percussion below the left one. Moist râles were audible, with increased vocal resonance of a somewhat metallic character. At the base of the lung there was harsh respiration, but no other morbid sound. On the right side the breathing was harsh, with prolonged expectoration, and there was increased vocal resonance. He expectorated copiously a muco-purulent matter, mixed with streaks of blood. He was very much reduced, occasionally vomited, and felt much exhausted. On his body was a crop of syphilitic rupia in every stage of development. His pulse was 85, and weak. His urine was highly albuminous; its specific gravity 1013, of a dark amber colour. Although this patient was treated with anti-syphilitic remedies, together with a highly-nutritious diet, and cod-liver oil, all his symptoms became aggravated; rapid emaciation

set in, which ended in fatal exhaustion. At the *post-mortem* examination of the body, syphilitic deposits—some suppurating—were found in the *kidneys*, lungs, liver, and spleen.

There now exists no doubt about the fact that syphilis does affect the kidneys as well as other vital organs. Rayer observés (*Traité des Maladies des Reins*, p. 485)—"It is not easy to appreciate thoroughly the influence which constitutional syphilis may exercise upon the development of albuminous nephritis, for it is very rarely we see this latter disease in individuals affected with constitutional syphilis, who have not been subjected to the action of other causes, the influence of which upon the development of the disease in the kidneys cannot be disputed. I have seen cases, however, in which the influence of the venereal constitutional affection has appeared to me so striking, that I have not hesitated to attribute, at least in a great measure, the development of the disease in the kidneys to the venereal cachexia."

SYPHILITIC DISEASE OF THE WOMB.—It is not to be wondered at that an organ of such high functional importance in the animal economy should be in some degree subject to the severe and injurious influence of the syphilitic virus. The reader will have seen in earlier chapters how materially its functions have been interfered with, and the life of the fœtus destroyed within it. The discussion on syphilitic contamination has shown that the mother may be tainted through that organ from the fœtus, and the fœtus tainted by the mother; also it has been contended that the womb itself may be indirectly infected by the semen of the father. The light which modern investigation has thrown upon the great question of constitutional syphilis, has led to the discovery of many lesions and functional disturbances

which never had been supposed to exist, and none of more importance than those connected with the womb and its functions. It is to be admitted that the influence of syphilis on this organ is not fully understood—nay, that we are but just groping our way in reference to it; but the stage at which we have arrived renders it probable that before long we shall be in possession of data, and precise information as the result of observation, which will set at rest many doubts and difficulties that now environ the question of uterine contamination.

The uterus is an organ that, from its structure, has considerable power of resistance to the introduction of the virus, through the protection which its mucous and submucous structures present, although it is notoriously the seat of many idiopathic diseases, from which women are continually suffering. The probable reason of its contamination by the syphilitic virus is, in my opinion, to be found in the breach of continuity which an ulcerated os uteri presents for the ready reception of the poison in infected semen, or in a poisonous exudation from a syphilitic sore on the male organ of generation. My own observations have led me to conclude, that many women are infected through having already ulceration of the mouth of the womb, who might otherwise have entirely escaped the infection of that organ by coïtus, although their husbands had primary ulcerations on the penis. Without this unfortunately ready and common channel of absorption, I believe that disease of the uterus itself would be much rarer than it is.

The question, however, is now placed beyond doubt, as to the fact of the womb being implicated in the constitutional taint, for it has been positively ascertained that affections of the uterus, analogous to the syphilitic phenomena on the skin, have existed synchronously with the latter. The evidence was clear as to syphilis being the active principle

in both seats of lesion. The venereal ulcerations to which it is subject appear not only at and around its mouth, but are found to exist inside and at the posterior part of the organ. There is generally a glairy fluid running from the womb, which with other kindred phenomena is sufficiently characteristic.* It is true, as I before remarked, that the uterus is the seat of a good deal of derangement from a variety of causes, few women escaping without some functional or organic irregularity; but my experience has convinced me that there is very much more uterine disease directly attributable to syphilis than is usually admitted. Several times have I, on the first examination, by the speculum, of patients who had been treated for ordinary ulceration of the mouth and neck of the womb, discovered, without the slightest difficulty or doubt, distinct syphilitic ulceration, which, as a matter of course, had defied every effort of the gentlemen who had previously treated them in harmony with a different diagnosis. As a rule, if careful inquiry and search be made, there will be some historical or physical circumstance that will confirm any suspicion of syphilitic dyscrasia; there will be either an existing syphilæmia, syphilide, or some cicatrices and discolourations therefrom, which will materially aid the diagnosis; these have therefore to be looked for. It is sometimes difficult to determine satisfactorily, without such collateral evidence, the true character of the ulcers, although they will now and then sufficiently attest their origin without other aid. On examining the womb per vaginam, the nodular induration is seen; and even where there is no consciousness of syphilitic contamination on the

* "Gummata and general induration with contraction of the cervix, are sometimes found in women who have long-standing syphilis, and will disappear when subjected to appropriate treatment. The symptoms usually complained of, are pains in the loins, irritation at the cervix, constant white discharge, and other symptoms depending on the permanent congestion of the organ" (Berkeley Hill).

part of the patient, this phenomenon has sometimes been found.*

I am fully aware that few authorities have yet admitted that the uterus is subject to infection, most of the writers on the subject considering that this organ enjoys a special immunity from syphilitic invasion. Mr. Acton, among the number, entertains the opinion that it is not affected in a greater proportion than one per cent. amongst patients suffering from uterine lesion. He states that few prostitutes, comparatively, are found to suffer from syphilis of the uterus, and he distinctly contradicts those authors who assert that many of the disorganisations of the os uteri are syphilitic. With reference to women of the town, I am free to admit that syphilitic ulceration of any portion of the uterus is much less frequent than might be expected. Amongst married women, however, I have found that it is more common than in the proportion given by Mr. Acton. Mr. Whitehead, of Liverpool, held a contrary opinion to Mr. Acton, believing, as I do, that the uterus does receive the infection whenever the virus is presented to an abraded or ulcerated surface on the os or neck. I am confirmed in my opinion by the circumstance that the diseased uterus has been effectually restored to a sound condition by specific treatment, when local applications of various kinds had been long used in vain. When treating on this branch of the subject in the next volume, I shall enter more at large into the pathology and general character of the lesions observed. Mr. Acton

* It has fallen to my lot to attend a number of females suffering from syphilitic induration and ulceration of the womb, with offensive discharge, which I have regarded as syphilitic, and have successfully treated them with specific remedies. Many of these cases were considered to be cancer of the womb, by some of the most respectable practitioners in this and in other colonies. I am now certain that many of the so-called malignant diseases of the uterus would recover under specific treatment.

described their appearance with much distinctness when stating that the ulcers "differed from all others; they are small, covered with chamois-leather secretion, which it is difficult to remove; their edges are distinct; they look as if a portion of mucous membrane had been punched out of the os uteri, and inoculation has shown that they are true chancres." Under these phases, with the addition of the intense induration of the organ, I pronounce them to be syphilitic disease.

PLACENTA.—This organ is more directly subject to disorganisation from the syphilitic taint than the uterus itself, exhibiting distinct and characteristic phenomena, such as nodules, and the usual yellowish cheesy deposits embedded in its processes. Sometimes the masses of abnormal deposit are reddish and contained in a capsule, which separates them from the rest of the tissues. In some of my own cases, which are given in the chapter on hereditary and communicated syphilis, it will be seen that the placenta is sometimes so disorganised and changed into the cheesy and greasy matter, as to break up in the hand by pressure of the fingers. This is distinct from that condition known as fatty degeneration, which is occasionally observed. The nodules in the syphilitic placenta are found distributed over the parietal or upper side of it, and are sometimes very large and deeply imbedded, and there are occasional cells running at the same time into the fatty degeneration before mentioned. As a matter of course, when the syphilitic virus has made its inroad upon this medium of nutrition to fœtal life, altering its structure, and impairing its functional operations, the chances of the continued growth of the child are materially reduced, and generally annihilated. This state of things will at once account for premature delivery, and for the death of the fœtus, it being impossible for it to obtain its

nutriment through so diseased a placenta, or from any other source. This condition of the organ is not so rare as is supposed, for I know of cases where, in miscarriages, the placenta was put away, and I have shortly after caused it to be brought to me for examination, and found the characteristic syphilitic deposits. In all these cases there was collateral evidence of the constitutional taint.

It is not improbable that our pathological knowledge of this organ, in reference to its invasion by syphilis, will soon be much enriched by researches in Europe as well as here. Several of my medical confrères in these colonies are pushing their inquiries in this direction; I therefore look forward to valuable contributions to this branch of our medical literature. I have recorded several of the most marked examples of placental lesion, some of which I shall furnish here as illustrations. Dr. Wilks,* of Guy's Hospital, speaks of this lesion as having been long noticed, and refers to the late Mr. Wilkinson King, who collected several cases of abortion connected with a change in the placenta, and which he believed to be due to syphilis.

Professor Virchow has recorded cases in which the mucous membrane of the uterus has been manifestly involved in the general lesion of the organ, it having become loose, and that part which covered the fundus was wanting. The change was especially striking at the posterior and anterior part of the inner surface of the membrane, where it was very thick, and was covered with large polypoid growths, part of which were half-an-inch long, a quarter of an inch and even more broad, and three-quarters of an inch high. These tuberosities were similar to papulæ and tubercles, and had a smooth and dense surface of a red colour. The patient in whom this condition of things existed suffered from syphilis in the throat, &c., and M. Virchow believed the disease of the

* *On the Syphilitic Affections of Internal Organs*, p. 60.

mucous membrane (decidua vera) to be syphilitic, which is probable, as the same pathologist found, in the mucous membrane of other syphilitic women, distinct papulous swellings of a venereal character.

Dr. L. A. Becquerel, physician to the Hospital of La Pitié, and Dr. Bernutz, who have devoted much time and labour to the investigation of uterine diseases, both announce that the mouth, neck, and interior of the uterus are subject to syphilitic lesion.

Dr. Becquerel affirms that "it is at once evident that the virus of syphilis, applied to the neck of the uterus by impure coïtus, or by artificial inoculation, develops on the surface of the neck primitive conditions of various form and character." More than this, he states that "these primitive phenomena, once developed, are perfectly capable of infecting the entire organism, and of producing the syphilitic diathesis." He also met with many patients who exhibited distinctly-characterised syphilides on the neck, as well as chronic inflammation, with or without granulations. These he cured by specific anti-syphilitic treatment. Other cases he refers to, where ulcerations of the neck of the womb resisted every effort to cure them which was not anti-syphilitic. The appearances on the uterus not being well-marked syphilides, and no primary or secondary phenomena existing anywhere else, the ulcers on the neck of the womb were treated in the usual way, by cauterisation, &c., but without the least improvement. These cases, however, proved to be complicated with the syphilitic diathesis, and immediately gave way to specific treatment. He is of opinion that if in a very large number of cases syphilis does not itself directly create the chronic inflammations, granulations, and ulcerations, it exercises a powerful influence upon them, and causes them to resist all the ordinary methods of cure, unless aided by anti-syphilic treatment.

Recent investigations have gone to show conclusively that both secondary and tertiary phenomena may appear on the uterus, both at its entrances and on its sides. Dr. Becquerel thus sums up the results of modern inquiries on this very important subject, in which he shows the stages of syphilitic lesion to be found on the uterus:—

"*Primary Phenomena.*—Chancres.

"*Secondary Phenomena.*—Syphilitic plaques muqueuses, vegetations, erosions, and syphilides.

"*Tertiary Phenomena.*—Tubercles, gummata."*

It is a matter of surprise to the physician and surgeon to find how much women suffer from disease of the womb. It is by far one of the most frequent disorders to which they are liable, and one which involves an amount of inconvenience and pain that seldom result from other ailments. It acts sympathetically upon the whole organism, often deranging every function, and rendering life miserable. This physical suffering is so great that it forces the patient to overcome the natural scruples of her sex, and seek at the hands of the surgeon relief in any form from the wearying torture she endures. How necessary, therefore, that all the light science can throw upon this distressing class of diseases should be made available for their relief, yet it is to be regretted that in the treatment of them there is still so rigid an adherence to old and stereotyped methods. Thousands of women continue to suffer, month after month, year after year, from disease of the womb, notwithstanding that they have from time to time to submit to the most trying ordeals at the hands of some rude so-called specialists, who blunder on without sufficient knowledge or skill, having no higher impulse than the sordid greed for mammon. These sufferers in most cases no doubt owe their continued defective health

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to some constitutional complication, such as Dr. Becquerel and others have pointed out as so frequently existing.

CASE LXXXVI.—*Chancres on the mouth and neck of the womb. Syphilitic cachexia. Constant headache. Cured.*

Mrs. F. H., aged 34. This lady consulted me in the month of January of the present year (1869), under the following circumstances:—She appeared as though she had been suffering for a long time from general constitutional debility. She was anæmic, nervous, and despondent. On interrogating her, I found that for "six years she had been subject to a good deal of pain in the bowels"—as she thought—with more or less disturbance of her general health. About two years and a half ago she had become so unwell, and suffered so much, that by the advice of friends she consulted a specialist of this city, who examined her, and informed her that she had disease of the womb. He proceeded to "burn" it, and treat it with injections, and she continued under his care from that time to this, with occasional intermissions, but was at the end in a far worse state than when she first consulted him. Such was her relation of the history of the case. I then by interrogatories obtained from her the following information, believing that from her appearance she was the subject of the syphilitic dyscrasia:—She stated that about seven years ago she had reason to believe that her husband infected her, as she became very sore on the genitals, and lost her health, which prior to that had been very good. Ever since then she has been particularly liable to sore throat and tongue, as well as to tetters on the mouth (herpes syphilitica), and to an almost constant headache, with loss of hair. She remembered that about five years ago she was much troubled with a rash, that, from her description, must have been lichenous,

which lasted a long time, and gave her a great deal of trouble; she took pills and draughts for it, which were given to her by an apothecary whom she consulted. After this the pains in her bowels continued to increase, and her general health did not improve.

I proposed an examination of the uterus per vaginam, to which she consented. On exposure of the mouth and neck of the womb to the light of the speculum, I found that there was much induration and contraction of the neck, from the frequent cauterisation it had been subjected to. There was also extensive lesion of a distinctly syphilitic nature, having the peculiar lardaceous covering characteristic of venereal sore. The ulceration appeared to be phagedenic, and was evidently extending. The edges were yellowish, and chronic inflammation existed over the whole of the neck of the womb. I placed the patient under a course of specific treatment, as practised by modern syphilographers, and a marked change immediately set in. The acid nitrate of mercury was freely applied to the womb, and the vagina filled with oiled sponges, which were removed in forty-eight hours; warm sedative injections were used twice a day, with a warm hip-bath of 90 degrees every night. No further examination per vaginam was made until about three months after, when all ulceration had disappeared; the patient was at that time rapidly progressing to her standard health, and said that she was quite free from pain or inconvenience in the organs of generation.

Case LXXXVII.—*Chancre of the uterus. Ulceration of genitals. Sore throat, &c. Cured.*

Mrs. F., aged 27, called upon me, stating that she suffered almost constant and distressing pain in the bowels, and had been informed that it might be something the matter with

her womb. She said that she had a great deal of pain in the back and thighs. Her husband had for some time been unwell, and had infected her, as she supposed. On making examination at her request, I found on the vulvæ ulcers of various sizes, several of which were quite recent. On carefully introducing the speculum, which gave considerable pain, I found three distinct Hunterian chancres near the mouth of the womb, and a large one on the left side of the neck of that organ. There was also a glairy, dirty yellowish discharge oozing from the womb; and the whole of the membrane covering the mouth and the neck was the seat of considerable inflammation. The patient at the same time had sore throat. Her health was not good. She complained of sleeplessness and nocturnal headache. I placed her under anti-syphilitic treatment, and in about nine weeks she appeared to be fully restored to health. The local applications in this case were acid nitrate of mercury, followed by weak injections of chloride of zinc and solution of opium made warm.

Case LXXXVIII.—*Syphilitic disease of the womb. Cured.*

I was consulted last year by a lady from Sydney, on account of "a disease of her womb." She had been married eight years, and during that time had given birth to two children, both of whom died soon after birth, and she had had three miscarriages. She stated that she was attended by a medical gentleman for an ulcer on the womb soon after her marriage, which was followed by abortion of a female child at the seventh month of pregnancy. This child she said was covered with spots, but her medical adviser did not tell her what they indicated. From that time she has never enjoyed good health. At the time I saw her she looked thin and sallow, appeared very nervous and low-spirited,

with a dull, watery eye. She was suffering from great pain in the back and loins, which extended down the thighs, and she could not sleep well on either side. Her bowels were constipated, her motions were flattened, and she had a great desire to pass water frequently. She suffered from a discharge from the vagina of a muco-purulent and sanious character, which stained her linen, and had a disagreeable smell. On examining the vagina digitally, I found a hard mass low down in the passage, which was mobile, hard, and nodular. With the speculum I observed what I could not feel, namely, the os uteri. There was also ulceration at the posterior part of the neck of the uterus, which looked very like cancer of the organ, and for which she had been treated. I at once made up my mind that this lady's case was non-malignant, and of syphilitic origin, for the following reasons:—Firstly, syphilis was undoubtedly communicated to her soon after her marriage. Secondly, it must have been in the form of indurated chancre, poisoning her blood, and thereby causing the death of her children, on whom were eruptions evidently of a syphilitic character. Thirdly, she had suffered from ulceration of the throat and tongue of a recurrent character, ever since she aborted for the first time.

I therefore applied through the speculum the acid nitrate of mercury by means of a brush, and filled the vagina with sponges soaked in glycerine, which were allowed to remain for forty-eight hours. This was followed by warm carbolate of zinc injections, and hot hip-baths, and she was ordered to lie on an air bed. A castor oil and opium enema was administered every second day. Internally I gave the corrosive sublimate, with hydrochlorate of ammonia, and tincture of cinchona. She was allowed good broths, soups, eggs, oysters, jellies, light puddings, milk, and a fair allowance of claret; she also took plenty of ripe fruit. In a month after the

treatment was commenced she was not like the same person, and in three months she was cured.

SYPHILITIC DISEASE OF THE TESTICLE.—This is a form of disease that involves serious and momentous changes of function, tending as it does not only to destroy the power to procreate, but also the desire for union with the opposite sex. It is, however, not so alarming to the patient in point of suffering, being almost painless, and on that account likely to be endured without recourse to medical assistance, until the tissues of the testicle have become seriously disorganised. It also differs from other forms of disease of that organ, by seldom involving the scrotum, or covering of the testicle. The period of its attack is frequently as long as three years after the original syphilitic infection, hence it is regarded generally as one of the late products of the taint. It does, however, appear sometimes within twelve months after infection, but such an occurrence is rare; and it is also accompanied, as a rule, by some syphilitic symptoms in another part of the body.

The name given by M. Ricord is that of *Syphilitic Sarcocele,* and has been written upon by Astruc, Bell, Hunter, Dupuytren, Sir A. Cooper, Ricord, Vidal, de Cassis, Gosselin, Curling, and others. Much pains have been taken by the several writers and observers to describe a correct diagnosis, and thus separate it distinctly from the other forms of diseased testicle. Its point of attack is especially central, not peripheral, seizing on more than one spot at once, from which centres of localisation it proceeds to the surface, and creates nodes, or lumps, on the testicle distinct from the scrotum, which are hard and fibrous, and disappear as the testicles increase in size. These nodes gradually enlarge and involve the whole testicle, which at length becomes uniform in structural change, also heavy and

pyriform, or pear-shaped. The prostate gland does not suffer in this disease, but always in others of a kindred character that are not syphilitic, such as tubercular sarcocele. Its advance is slow, indolent, and not well marked, so that patients frequently do not discover its existence until it has made considerable progress. Sometimes it will remain stationary, as in one instance where I knew it to have reached a certain stage, and for years not to have altered in the least. Even the nocturnal pains which some writers have mentioned do not always exist, being in fact seldom present. In none of the cases which have come under my care has that symptom occurred. At the close or subsidence of the disorder in one patient, the testicle became atrophied, and lost of course its functional uses.

As the syphilitic testicle is always admitted to be one of the more advanced expressions of the constitutional taint, it commonly occurs as the sequela of that long train of symptoms that follows the indurated chancre—such as the scaly affection of the skin; the excavated ulcer of the throat; iritis, or inflammation of the iris; and nodes, or hard swellings, on the bones of the legs. It usually does not happen until these symptoms have passed away, and the patient imagines that he has finally got rid of his unwelcome companions, the syphilides. When the testicle begins to be affected, the patient is apt to refer the uneasiness to a blow, or a squeeze, or to look upon it as a gonorrhœal infection. Sometimes the testicle will attain the size of a turkey's egg, and even become much larger than that. It is generally ovoid, or egg-shaped, being heavy and smooth, not painful, except by its weight, which causes a dragging sensation in the spermatic cord, and loins. It is also usual for but one testicle to be affected at once, though instances do occur in which both are involved. Although the organ continues to increase both in size and weight, it does not suppurate.

Another form has been described by eminent writers under the term *Tubercular Syphilitic Sarcocele.* In this the testicle is enlarged to four times its usual bulk, is of an irregular shape, presenting an uneven, hard, and knotty mass. It is not painful of itself, but causes pains in the loins and cord from its weight. In this form of disease both testicles are usually involved, but one is always worse than the other. All sexual desire is lost. In these cases suppuration sometimes occurs, followed by a discharge of pus, but it is exceptional. The formation of openings in the scrotum, and the protrusion of the testicle in a fungoid state, also is met with. This form occurs in persons of a broken and cachectic constitution, who are suffering from the advanced and tertiary stages of syphilis, especially in the bones and throat.

The DIAGNOSIS of syphilitic testis is comparatively easy. At first nodular, it soon becomes smooth, and even as the organ becomes enlarged there is generally an absence of pain and diminished sensibility of the part. Sometimes other syphilitic symptoms are present, such as sore throat, and nodes on the bones or muscles. Syphilitic disease must not be confounded with—

A *Tubercular disease.*
B *Malignant disease.*
C *Simple orchitis.*

Tubercular disease occurs more frequently in youths; syphilis in adults. In tubercular disease pain is generally present. In syphilis pain is invariably absent, except on the back and loins. Tubercular disease generally commences in the epididymis. Syphilitic disease commences in the testicle. In advanced tubercular disease the nodules may adhere to the scrotum, and abscesses may form; this does not occur in syphilis.

In malignant disease the pain is severe, of a shooting

character, the testicle enlarges rapidly, and the glands in the groin also become affected. In syphilis the size increases slowly; the inguinal glands, spermatic cord, and scrotum are not involved. Cancer may attack the testicles of persons of all ages, while syphilis does not. Cancer only attacks one testicle, but syphilis frequently will involve both.

Simple chronic orchitis, and cystic enlargement of the testicle, are readily recognised by their feel, aided by the history of the case; as also hematocele, hydrocele, and acute orchitis.

"*Pathological Structure.*—Two distinct kinds of change take place. First, inflammation of the fibrous structures; second, production of so-called gummy swellings. The first commences by congestion and thickening of the tunica albuginea at a few limited points on the serous surface; from these spring adhesions of the surfaces, and effusion of fluid into the serous cavity. This inflammatory action passes inwards into the mass of the testis, so that the fine threads and laminæ of cellular membrane between the tubules, which are naturally very vascular, are converted into a soft cellular tissue crowded with nuclei. This new tissue contracts and indurates, whereupon the tubes alter, their walls thicken, lose their epithelial secreting lining, and shrink into an almost homogeneous mass. These changes, slow in taking place, are usually at first, and for some time, confined to one or two isolated lobules, and they do not generally affect the rete testis, or vasa efferentia. As the morbid action rarely affects more than a few of the lobules at first, and the disease is commonly arrested before the secreting structure of the tubules is destroyed, the gland recovers its abnormal condition to a great extent. The inflammatory induration, if long-continued in the tunica albuginea, renders it thick and gristly, and the free surfaces of the serous coat become

adherent. Second—*Gummy Swellings.*—This formation does not necessarily always arrive in syphilitic disease of the testicles; on the contrary, it is a less frequent form of the affection than the inflammatory one. It commences by the development of a hard nodule, where the tunica albuginea, or one of the lobules of the testis, have been previously indurated in the manner already described. The gummy masses have not the small miliary transparent masses that develop around real tubercle; on the contrary, the former, when recently produced, are surrounded by a vascular areola that becomes, when the masses have existed some time, a tough capsule. The gummy masses are not unlike tubercular nodules in the testis, but they are distinguished, as before said, by the absence of the miliary grey tubercles, that can be often found round real tubercle, and by the fibrous or vascular capsule of the gummy growth. The interstitial and gummy inflammation may be simultaneously produced in the testicle, and correspond in all points with the syphilitic affections of the liver."*

In reference to the period of attack in syphilitic testicle, I have found the statements of all writers on the subject to be in perfect accord with my own observations, with the exception of one case that occurred in my practice. This case I give as one of the illustrations of diseased testicle selected from a great number which have come under my observation during the last few years. Amongst my cases of hereditary syphilis will be found a rather remarkable one of syphilitic enlargement of the testes in an infant, which phenomenon is rare, and said by some authors not to occur. The child to which I refer had a very marked type of the enlargement, as will be seen by the reported case.

* *On Syphilis and Local Contagious Disorder*, by Berkeley Hill, M.B. Lond.

Another circumstance of importance which accompanies this syphilide is, that there may be a frequent recurrence of it, unless it should have been properly treated. It has, in some patients who have consulted me, returned eight or nine times, at intervals of a few months, and this continual re-appearance has been the chief inducement in them to seek medical aid. There is manifest danger to the functional integrity of the organ in allowing it thus to be the frequent seat of disease, as by so doing it will eventually shrivel, and all virility will be lost. This is a *dénouement* that is to be dreaded: hence the necessity for pointing out the danger that is incurred by neglecting to obtain medical aid of a truly scientific nature. Amongst those who have consulted me for diseased testicle I have met with more than one person in whom all desire and ability for physical union with the opposite sex were lost. Castration could not have been more effective. There is, however, this hope left in many instances where the procreating power is lost—viz., that although much of the testicle may be seriously involved, so long as any portion of the tissues are intact, a wise course of treatment will bring about a return of the virile power and appetite.

In reference to the prognosis, or prospects of cure, M. Ricord may be cited to advantage:—"Syphilitic degeneration of the testicle is not an infection that endangers the patient's life. But as it produces certain peculiar and very disagreeable modifications of the organ, it becomes a rather serious matter. The prognosis will greatly vary according to the time when the treatment has begun. It may in general be said that the more recent and circumscribed the syphilitic degeneration is (and consequently less likely to become organised), the less serious it is. If, however, while the patient is being treated, and resolution is going on, the hard nuclei are noticed to retain their induration, the

ultimate result should be looked upon with distrust; for in many of these cases there is total destruction of the substance of the testicle, and actual atrophy has already begun. But if, on the contrary, the normal consistence and elasticity return in proportion as the resolution proceeds, the prognosis should be favourable. When syphilitic sarcocele has reached a certain period, the plastic effusion may become organised, and therapeutical means have then no longer any power over it; and it would, in such cases, be perfectly useless to persevere in the treatment."

CASE LXXXIX.—*Fibroid degeneration of both testicles. Syphilis in the left eye. Forehead tuberculous. Ulceration of the larynx. Nodes, &c. Cured.*

Mr. M. N., from Sydney, consulted me in February, 1868, in consequence of one of his testicles having increased slowly to a very large size; and he had been under treatment, according to his own statement, for a long time, without having derived any benefit whatever. As he entered, my attention was drawn to a dull and watery appearance of the left eye. When questioned about it, he stated that he had always understood it to be a blight. I, however, on examination, found the eye was suffering from syphilitic iritis, with a tuberculous deposit on the lower border of the iris, and narrowing of the pupil. The testicles were large, heavy, and nodulous, and their condition seemed evidently to be that of degeneration of a fibroid character. His forehead was covered with syphilitic tubercles, and his voice was hoarse. After he had been a few days under treatment, the hoarseness became worse, the breathing embarrassed, and a dry cough set in, with great difficulty in swallowing. When pressure was made over the windpipe it gave him great pain. This led me to examine the larynx with the laryngo-

scope, where I found distinct syphilitic ulceration on the mucous membrane of that tube, and on the vocal cords. Beneath both knees he had large patches of syphilitic lepra, with well-defined nodes on each shin-bone. Anti-syphilitic treatment of the most energetic kind was adopted, together with topical applications to the larynx. Under this treatment he soon recovered his voice and normal breathing, and in eight months and a half he was as well as ever.

CASE XC.—*Congenital syphilitic disease of a child's testicle. Palmar syphilis. Father syphilitic. Cured.*

J. R., an infant 20 months old, was brought to me from Williamstown, in July, 1868, with enlargement of the left testicle, which the nurse stated that she had noticed at the birth. The mouth was ulcerated, and there was a large condylomatous growth at the orifice of the anus. The palms of the hands were spotted with the palmar syphilide. The testicle was large, hard, and its surface smooth. The father of the child said that he had syphilis several years prior to his marriage, but the mother had never shown any symptoms whatever. The usual anti-syphilitic course cured the patient in about seven weeks.

CASE XCI.—*Tubercular ulceration of scrotum. Condylomata on the anus. Ulceration of nostril. Mental disturbance.*

Mr. ——, from Sydney, consulted me last year (1868), having the scrotum enormously enlarged and inflamed, with extensive ulceration on each side. The edges of the ulcer were indurated and intensely painful to the touch, discharging an ichorous and unhealthy humour. The covering, or purse of the testicle, was thin and attenuated, so that

the testicle could be seen through the skin, although not absolutely exposed. There were condylomata or syphilitic vegetations at the anus, and similar growths on the throat. At the corona glandis, behind the bulb of the penis, was a cartilaginous growth of the size of a small bean, where a chancre had formerly been. There was an ulcer in the right nostril, which was so thickened or tumefied that he could not breathe through it. He had lost flesh considerably, and his mental state was one of great despondency. After being under a course of anti-syphilitic treatment, as recommended by latest authorities, he was completely cured in about four months.

CASE XCII.—*Syphilitic sarcocele. Spots on the tongue. Syphilitic vegetations on the tonsils. Cured.*

Mr. F. R. consulted me on 16th June, 1868, complaining of a swelling on the right testicle, which he said had been swollen about two years. Three years prior to the enlargement of the testicle he had contracted syphilis by means of an impure coïtus, for which he was treated and pronounced cured. Three years after this similar spots appeared on the tongue, which alarmed him, and caused him to seek medical advice. The surgeon upon whom he called informed him that the sores he felt were signs of secondary syphilis. While under treatment the testicle commenced to enlarge, and continued to increase up to the time of his consulting me. On the first appearance of the swollen testicle it might have been taken for hydrocele, from its pyriform character; but on tactile examination it could at once be felt to be syphilitic sarcocele. There were at the same time some superficial fluctuations in the outer part of the swelling, into which I thrust a trochar and canula, and drew from it four ounces of hydrocelic fluid. There were syphilitic vegetations

or condylomata on each tonsil. I placed him at once under a course of anti-syphilitic treatment, and in about six weeks he was free from every symptom of a syphilitic character, and in his normal health.

Case XCIII.—*Syphilitic testicle. Herpes. Urethral chancre. Cured.*

Mr. C., a contractor in the neighbourhood of Melbourne, was inoculated by impure coïtus, which gave him urethral chancre. He was treated a long time for supposed gonorrhœal discharge, and on its cessation was believed to be cured. Spots, however, soon appeared on the prepuce, which induced him to consult me. I found on examination that they were syphilitic herpes, conjoined with swelling of one of the testicles, which enlarged rapidly, assuming the character and shape usually present in that organ when attacked by syphilis, as the syphilitic sarcocele. It was not painful on pressure, but from its weight gave pain when not supported. I noticed this case because the symptoms in the testicle occurred at a much earlier period than usual, as they seldom manifest themselves under twelve months after the ordinary train of symptoms which follow chancre. A short course of non-mercurial treatment completely restored him.

Case XCIV.—*Fungoid testicle. Failing health. Fissures in tongue. Loss of hair. Cured.*

A patient was admitted into the Melbourne Hospital and placed under my care in the year 1864, with the following symptoms:—A large fungoid mass was protruding from the scrotum on the right side. He stated that the symptoms commenced two years before, in the form of hard, irregular lumps or nodules on his testicles. These continued without

much change for a length of time, during which his health gradually gave way, and he became unfit for exertion of any kind. He had sore throat, and fissures in the base of the tongue, which were extremely painful. His hair fell off, and his weight was reduced from sixteen stone to twelve. The pain in the joints at night was so severe that he could not sleep. In this case I followed the practice of Professor Syme, of Edinburgh, by paring the fungus, detaching it from the adherent edges of the scrotum, returned it and brought the edges together with silver wire. In a short time there was no evidence that the testicle had escaped from the scrotum, and a course of anti-syphilitic treatment saw my patient completely and safely through his troubles.

CHAPTER IX.

Communicated and Hereditary Syphilis.

HEREDITARY SYPHILIS.*—It is now necessary to enter upon a very wide and important division of this chapter—viz., the very serious influence which the syphilitic taint has when communicated to the mother, and through her to the uterine life of the child. All writers on syphilis are unanimous in the opinion that communicated syphilis is one of the frequent causes of abortion. This circumstance in connection with syphilitic contamination ought particularly to be considered by parents who have by any means received the virus into their systems, as well as by those who purpose entering into the marriage state, and who have been at some time the victims of chancre or any of the syphilides. This chapter should be perused with grave

* "Syphilis in the infant may be hereditary or acquired. *Hereditary* syphilis happens thus:—The mother during pregnancy suffers from constitutional syphilis; and she either supplies a vitiated ovum, or her blood contaminates the nutritive elements furnished to the fœtus during intra-uterine life. Or the taint is derived entirely from the diseased semen of the father; the mother having been and continuing healthy, unless she becomes infected by the poisoned fœtus. Or, again, both parents may be suffering from constitutional syphilis at the time of fecundation, in which case there is a very slight chance of the offspring escaping. In *acquired* syphilis the delicate infant's body gets infected by inoculable matter on the mother's genitals at the time of birth; or its system suffers from sucking at the breast of a syphilitic nurse."—*The Practice of Medicine*, by T. H. Tanner, M.D., p. 332.

consideration, involving as it does the great question of marital and parental relationships, with their momentous duties, responsibilities, and issues, so far as the health of the body is concerned. In the consideration of this question are to be learned those terrible lessons of retributive justice which fall to the lot of so many in human society, who have been so unfortunate as to acquire the syphilitic taint, and by the force of circumstances, whether ignorance or otherwise, to transmit it to their partners in life, and thus, by natural union, to their offspring.

This evil is now of vast dimensions, having permeated every section of society, and tainted thousands and tens of thousands of homes.* There is also this remarkable character about it—viz., that when once it has invaded the constitution, there is no possibility of predicting whether it will finally disappear, or when it is driven out. Its order of development is unlike any other disease, and it is so erratic and unexpected in its several advents, that it defies calculation as to the period for which it may remain latent. A few months in the one case may suffice to give it activity, and cause it to assume one of its stages, or all of them; and in other instances years may elapse before it bursts into activity, the patient all this time being in profound ignorance of its existence.

* "It is in the midst of us; it pervades every rank of society; its traces may be discovered in almost every family; its Protean and ever-changing forms are too numerous to be computed, and often elude detection even by the most experienced eyes; it attacks by preference the young and vigorous; the strength of manhood in the prime of life it reduces to weakness; the healthy blood of blooming womanhood, designed to nourish the coming generation into vigorous life, it converts to poison; it blights the infant in the womb, and contaminates the milk drawn by the child from its mother's breast. It respects neither virtue, nor purity, nor innocence, which are alike defenceless against its indiscriminating and corrupting influence."—*Prostitution in Relation to the National Health*, "*Westminster Review*," July, 1869.

There can be no greater injustice committed than for a man who has contracted syphilis at any time to run the risk, by marriage, of causing his offspring to be brought into the world prematurely, dead. In the range of my own observations, I know several married couples who cannot rear a family from this very unfortunate cause. In some the births are so early as to constitute abortions; those children which do reach the full time being so weakly as to die during the early months of their miserable existence. The poison so acts upon the blood-current passing between the mother and child, and so seriously affects the placenta, that continued gestation to the full period is almost impossible, and especially so in some constitutions. This subject has for some time forced itself upon the leading syphilographers, and it is now a matter of surprise that this prolific source of abortions has not been more frequently detected. Dr. Campbell, a writer in the *Northern Journal of Scotland*, believes "that when women miscarry at or about the seventh month, and the child is putrid, *we must look to syphilis as the cause*,* and that a cure would be effected by giving

* "*Secondary syphilitic affections of the uterus* are by no means uncommon. They are very obstinate, and will now and then persist as the sole remains of the syphilitic poison. The chief symptoms are considerable enlargement and increased firmness of the vaginal portion of the cervix; an abundant muco-purulent (or purulent) discharge, both from the cavity of the uterus as well as from the wall of the vagina; with patches of abrasion, or even superficial ulcerations, upon the labia uteri. Now and then the induration and excoriation are so extensive that the case is mistaken for cancer; an error, however, which will seldom be committed if attention be paid to the general state of the system, and if it be noticed that the uterus is perfectly moveable—not fixed, as it is in malignant disease advanced to the stage of even superficial ulceration. The functions of the sexual organs are affected in constitutional syphilis; so that menstrual irregularities are frequent—the flow usually being too abundant. There is also evidence of morbid changes in other parts of the body; particularly loss of hair, sore throat, scaly cutaneous eruptions, and nodes

mercury (judiciously) to both parents." His reason for this belief is, that he has witnessed the occurrence very frequently; and he gives the two following cases in illustration:—"A physician contracted what he believed to be a chancre. Six months afterwards he married. Three children were successively prematurely born; the first lived only a few hours; the second was born between the sixth and seventh month, and lived eight hours; the third labour came on in the seventh month—the fœtus dead and decomposed. No trace of syphilis was observed in either parent. The father and mother were treated specifically, and the next child was born vigorous, and free from any syphilitic taint."

The other case was as follows:—"Seventeen years previous to marriage, a gentleman suffered from syphilis, *which he was assured was cured,* although an impression remained on his part that the complaint had not been completely removed. Both parents were apparently in perfect health. The first child was born in the early part of the eighth month of gestation, was delicate, and lived eleven days. The second birth happened in the seventh month, the infant surviving only an hour and a half. The third delivery occurred in the sixth month, when a fœtus much decomposed was produced. The husband and wife were treated specifically, and a living healthy child was born at the close of the eighth month."

upon the tibia or upon the frontal bone. Should a woman thus affected become pregnant, she will either abort, or she will be delivered (probably prematurely) of a dead child, or she will give birth to an infant who will soon exhibit proofs of a contaminated system. One or other of these results will follow again and again until a radical cure is effected. The cases we read of sometimes of abortion from habit are in nine cases out of ten abortion from constitutional syphilis. The treatment of this disease must be carried out according to the principles already laid down.—*The Practice of Medicine*, by T. H. Tanner, M.D., p. 313.

These cases are forcible illustrations, the first especially, which appears to be as distinct in its history as need be. The latter, however, is not so clearly removed from the possibility of other causes having had something to do with the abnormal parturitions; it does nevertheless harmonise in all respects with cases which I have had under my own notice, and with others that have been communicated to me. Mr. Acton, whose opinion is much respected, does not agree with many other writers as to the extent to which syphilis is responsible for abortion, but he believes it to be by no means inert in reference to gestation. He says—"I believe that syphilis, like many other diseases, *may blight the ovum*, and then it will be thrown off like any diseased structure." There are, as I before remarked, instances where syphilitic parents have had children born at the full period, and in apparently good health. This occurs frequently, but it is equally certain that most of these children exhibit signs of the taint sooner or later. It is also equally true that abortion is in a great many cases the result of the poisonous action of syphilis upon the placenta of the mother, as well as the effect of its continued influence which the semen of the male communicates to the germ at the initial stage. During my connection with the army, I was struck with the number of children brought forth perfectly rotten by soldiers' wives, which could not be attributed to any cause save that of communicated syphilis received from the husbands, amongst whom the disease was exceedingly common at that time.

As in the question of transmitted syphilis by vaccination, so in this one, authorities are divided as to the communicability of syphilis by inoculation, and many deny that secondaries can be communicated, except hereditarily. It is said that the father cannot affect the fœtus through the membranes, although he may, and undoubtedly does, infect the

germ at the time of impregnation. That the act of impregnation is the most potent and certain means of inducing hereditary syphilis, is now almost universally received without question, and many are the instances that could be put forward as illustrations of this law. The infant at birth may not exhibit the phenomena of infection, but in a short time its skin and mucous membranes exhibit the characteristic expressions of the virus in activity.

So long ago as the year 1824, the late Dr. Beatty stated his opinion that "married females had frequent miscarriages and dead children, occasioned by a venereal taint, although *no symptom existed to indicate the nature of the cause.* Observation and inquiry ended in the establishment of the fact beyond doubt or contradiction; and it is now very generally understood, and acknowledged by the profession, that the fœtus in utero may be poisoned by the disease existing in the father and mother, although not a suspicious symptom can be discovered in either.

"Thus this poison, that may be so entirely suspended in its effects, and circulate so harmlessly as not to give any indication of its presence, nevertheless preserves its mischievous qualities in such perfection as not only to be capable of communicating the disease, but of conveying it in its most complete and concentrated form, and endowed with all the virulence it can be supposed to possess; for in all children is the character of the disease the same—in all is the contamination *thoroughly and entirely finished.* In this does infantile syphilis differ from that of the adult, that it has no stages to pass through, no successive organs or tissues, or orders of parts, to attack, but has already infected every spot susceptible of its influence, and contaminated and spoiled the whole body. Many young and respectable females suffer repeated miscarriages at different periods of gestation, and often bring forth the fœtus in a

decayed and putrid state, without ever entertaining the slightest suspicion of the cause. Sometimes they go the full time, or nearly, but the child ceases to move three weeks or a month before the expected time of parturition, and comes into the world *not only dead, but decomposed, the cuticle peeled away, and the skin red and moist and flabby, as if it had been for some time undergoing the process of maceration.*

Again, a woman may go her full time, and be delivered of a fine and seemingly healthy child, but in the course of three or four days, or somewhat later, the little creature refuses the breast, and screams continually in a weak and raucous voice; the angles of its lips crack; the mouth is surrounded by a coppery-coloured eruption, sometimes fissured, sometimes branny; the insides of the mouth and fauces are white and dirty; a copper-stained blotch appears over the nates and privities, which soon become excoriated, and exude a fetid sanies; the child's features become contracted, and assume the appearance and expression of premature old age, and it pines and dies rapidly. When a case of this description occurs, it is perfectly clear that the child has some confirmed constitutional disease, which it brought into the world along with it, and therefore inherited in some manner or other from its parents. . . . Further, it is now familiarly known, and has been repeatedly proved by experience, that during all this time the father and mother may not have exhibited a single tangible symptom, not the smallest speck or sore that could furnish a solitary drop of purulent matter; therefore we are forced to the conclusion that the infecting principle may exist for *months or years within an individual without his cognisance of it.*"

The graphic character of the above sketch is my reason for transcribing it, so fully does it portray the perils that

surround what I have frequently referred to as latent syphilis. It often remains for years after the primary indications have completely passed away, and the patient has forgotten their existence, resting in the delusive persuasion that with its external manifestations it had altogether left the body. Here lies the great danger in reference to treatment. Non-specific or superficial treatment tends to the most disastrous of consequences, in blinding the patient to the actual existence of the virus in his constitution, and in causing him to ignore the inevitable visitation in a few years, or it may be months, of the same foe in a more alarming garb. Non-scientific and injudicious treatment, as practised by the ordinary charlatans and quacks, leaves the unhappy victim of syphilis utterly at the mercy of the virus, and permits him unconsciously to enter into the marriage contract, profoundly ignorant of the misfortunes that await him.

It is thought by some to be doubtful whether the fœtus can be infected by the mother or by the semen of the father. The preponderance of evidence, however, goes to show that the father is usually the chief source of infection, although the mother also may, and frequently does, infect her offspring.* The seminal fluid of the diseased male is undoubtedly a vehicle of syphilitic transmission, and it manifestly poisons and devitalises the ova by the virus

* "Practically, however, the *congenital* disease, in the proper sense of that word, is always derived from the blood or semen of one or both parents. Therefore when an infant is born, in whom (by the symptoms which will be shortly described) congenital syphilis is diagnosed, it is the duty of the medical attendant to discover which of the parents is affected, and not to allow (if possible) further cohabitation until the secondary symptoms have entirely disappeared, under the treatment which has been above described in the essay on SYPHILIS. Neglect of this precaution may not only entail on the couple the misery of a family of deformed, puny, and ailing children, but to the woman at least is fraught with grave personal danger. Whatever may be the case among the poor, there is no doubt that in

which it contains. M. Ricord, of Paris, the leading authority on all matters of this kind, from his long and patient investigation of every phase of venereal manifestation, is quoted in the following passage, in which he distinctly enunciates his views :—"Supposing a female to be impregnated by an infected agency, how will she be infected by carrying a poisoned fœtus? According to several well-observed facts, we may infer that the mother can receive the germs of the disease from the child; so that, in such a case, she suffers from the syphilitic infection by the instrumentality of the fœtus in utero. It had hitherto been believed that the mother received the infection directly from the father, and that she transmitted to her offspring the diathesis with which she became imbued; but this never happens unless the mother has been subjected to the contagion of primary sores, and she herself has had an indurated chancre, as well

the better classes congenital syphilis is usually derived from the father; the mother being uninfected except through the fœtus. Now it has been, if not absolutely proved, at any rate rendered in the highest degree probable, that a healthy woman carrying a syphilitic fœtus may become infected with constitutional or secondary syphilis through the exchange of components which goes on between the fœtal and maternal blood in the placenta. Thus are explained some of those cases in which women, who have never had primary syphilis, have shown all the symptoms of secondary syphilis after living for some years with husbands suffering from secondary symptoms. There seems also some reason to believe that after such an infection of the sound parent, the disease in the future offspring will be rendered more intense. Otherwise the congenital disease appears to become gradually milder in each succeeding child, as the time of impregnation becomes more distant from that of the original infection of the parent, even apart from the influence of treatment on the latter. This, however, is by no means a reason for neglecting such treatment. Again, children may be infected with syphilis in vaccination, or by contact with syphilitic sores on the persons of their wet-nurses or others. We shall recur to this, more strictly speaking, *infantile* variety of the disease, after having described the symptoms of that which is truly congenital."—*A System of Surgery*, by various authors, p. 841.

as secondary syphilitic symptoms consequent upon such chancre.

I am ready to acknowledge that a woman may give birth to an infected child without experiencing any inconvenience herself; the father in such a case transmits the poison in the seminal fluid by reason of the secondary symptoms that may be upon him at the time. If he had primary symptoms, he would have diseased the mother directly, and the effect might have reached through her. A man who has constitutional syphilis upon him, of however long standing it may be, *should not marry*, for his progeny runs great risks. His wife, however, is not always in such danger, for the embryo may or may not contaminate her. I well remember a case of this description, where a gentleman with certain secondary manifestations was advised by his medical attendant to postpone engaging in wedlock. He disregarded the advice, married, and nine months afterwards he had the mortification of seeing a well-defined eruption upon the child."

The case set forth in the preceding paragraph conclusively affirms the fact of syphilitic communication to the germ by the father, during the functional act of impregnation. In my own experience as a surgeon, I have met with many cases confirmatory of the dictum of M. Ricord. One instance presents itself to my memory with more than usual vividness, where a gentleman had married several years after he had ceased to see any indication of syphilis existing in his system. So long an immunity, indeed, had he from its phenomenal development, that he never for a moment gave it any consideration, and consequently entered into marriage relationship with confidence. Nothing could exceed his surprise when he discovered, through medical information, that his first child exhibited unmistakeable indications of the dreaded taint. When born, the child was perfectly developed,

and as well apparently as nature would have it. It never occurred to him to suspect or look for evidences of syphilis. All went on well for a few weeks, when suddenly the nurse thought it necessary to consult the medical attendant about a papular eruption on the skin and palms of the hands and buttocks, and some ulcerations in the mouth and the anus. There was also inflammation of the lining membrane of the nose, wasting of the body, and snuffles. The child looked prematurely old, with a looseness of the skin, especially about the soles of the feet and palms of the hands. I was able at once to pronounce the disorder a pure syphilide, and to conclude that the disease had been communicated by the semen of the father at the time of impregnation; thus proving that, although the father had not had an outbreak of syphilis for several years, still, as it was latent in his constitution, it was communicated by the semen, and became active in the offspring.

The controversy in reference to the power of the male to infect with secondaries is still waging with some acrimony; but, although the few who defend the negative side are still unwilling to yield to the pressure of evidence to the contrary, the majority of modern syphilographers announce their entire belief in the communicability of the secondary form, and furnish many instances of its occurrence. M. Ricord has given in his adhesion to the doctrine, and Erasmus Wilson also maintains it. For my own part, after many opportunities of special observation, and careful criticism of all the circumstances surrounding the cases under view, I am of opinion that secondary syphilis is undoubtedly communicable, and that experience and continued observation will eventually put the matter at rest in the affirmative. There are, doubtless, many diseases which in some degree simulate syphilis, and are frequently mistaken for it; but this is a slender basis on which to deny the fact of syphilitic

infection from the secondary stage. There are sufficient data already collected to render it puerile to ignore them as evidence.

CASE XCV.—*Syphilitic contamination of the fœtus through the mother. Death and abortion of fœtus. The mother suffering from secondary syphilis.*

On the 18th of March, 1867, at 11 P.M., I was hastily summoned to Carlton, near Melbourne, to see a woman, in labour with her third child. She said that she was in her sixth or seven month, but had not felt the child for several days. I noticed that she had a well-marked syphilide on her forehead, and, although she was but twenty years of age, she had lost nearly all her hair. As the labour pains were very severe, I did not leave her until the fœtus was expelled, which took place two hours after, with the placenta. The fœtus was covered with a vesicular syphilide, most of the spots having a gangrenous character. She stated that she had noticed the eruption on herself a few weeks after one of a similar kind had broken out on her husband, soon after they were married. He had been treated for primary sores about a year before marriage, and thought that he was cured.

It is not stated that secondary syphilis in every form must necessarily be communicated, and infect the body brought into immediate contact with it. The affirmation is that, as a rule, secondary syphilis is communicated. It is conceded that there are cases in which the mother and the children escape where the father suffers from a syphilide, but these are not numerous. Mr. Acton gives cases in support of this opinion, which completely demonstrate the possibility of children of a syphilitic father possessing an entire immunity from the disease with which he was

afflicted. This has taken place even where the father had during several years suffered from outbreaks of the syphilides. The cause of this immunity on the part of the female is to be found in her having a constitution lacking the usual receptivity for animal poisons.

The weight of evidence, however, preponderates greatly in favour of the father stamping on his offspring the like misfortune with which he is himself afflicted, and offers material for grave reflection on the part of those persons who either are in wedlock or purpose to enter it. No person who has had primary or secondary syphilis should think for a moment of forming engagements with a view to marriage *without placing himself under the guidance of an experienced surgeon, who would, by eradicative treatment, if necessary, prepare his system for the momentous step.* The responsibilities are great on the shoulders of that man who can disregard the common principles of prudence, and rush into the connubial association with a taint in his constitution that is capable of transmission; and the responsibility is scarcely less on the medical adviser who will sanction an alliance with the opposite sex of any one whose system has been the depositary of primary chancre or secondary eruption. Multitudes of men enter the marriage state in a condition not only unfit, but absolutely unwarrantable, in a physical sense.* It is true that men marry in most cases without the knowledge that they are

* "It has now been satisfactorily ascertained, from experiments with animals, that if a female have young by two different males in succession, the progeny of the second union may resemble the male of the first: a mare fecundated by the zebra, had a colt bearing the characteristic marks of the zebra; she was afterwards separated from the zebra, and fecundated by horses, the results being three successive foals, each of which bore distinctive marks of the zebra from which she had been separated. This fact and several similar ones, which have been authenticated, prove that the cases just related, which at

capable of transmitting syphilis to their children, believing that as they have at the time of their marriage no external evidences of disease, they are therefore not liable to infect the wife, or the offspring which may be the result of their union. I am anxious to lessen the frequency of this error as much as possible, knowing as I do by painful experience how many men regret that they did not know the dangers which they incurred, and the serious consequences which would follow in reference to their children. It has been my duty on several occasions to warn men against immediate marriage, although they fully contemplated doing so, and had made the preliminary arrangements. Sometimes this advice has been followed, but in others it has been neglected, and in most of the latter cases the neglect has been followed by permanent and poignant regret. Much depends upon the nature of the treatment the patient has undergone, for although the syphilitic symptoms may be removed, still the excessive administration of mercury, and nostrums that are highly prejudicial to the constitution, may so far injure him as to create syphilitic complications that will baffle the skill of the ablest surgeons and physicians.

first sight seem inexplicable, are in strict accordance with natural laws, and indicate what a really momentous and solemn thing, for the woman especially, marriage is; for they show that a mother, by becoming such, subjects her constitution to the possibility of a profound and irrevocable change; that the characteristics of her husband's system, whether wholly poisoned, wholly healthy, or in some intermediate condition, are impressed upon her through the intervention of her child; that no judicial separation or divorce can enable her to annul the constitutional identification which has been effected, and that as long as life lasts, whether she may have been tainted so deeply by any constitutional disease as to manifest it in either herself or her offspring, or whether the changes induced elude her recognition, she can never escape the fate to which she has surrendered herself."—*Prostitution in Relation to the National Health*, "*Westminster Review*," 1869.

In relation to hereditary syphilis, and the characteristic impress it often makes on its victims,* Mr. Jonathan Hutchinson, surgeon to the Metropolitan Free Hospital, read a very interesting paper before the British Medical Association, from which I shall take some extracts, worthy of being generally read. His aim is to arrive at a method of diagnosis of syphilis that shall be exact, and release the medical man as much as possible from the dependence which usually has to be placed on the patient in examining

* "*Symptoms.*—The popular name for this disease—the snuffles—indicates one of its most striking features—a discharge which collects in the nose, blocking it up sometimes entirely, so that the infant is unable to suck for any length of time. In extreme cases, this inability to suck becomes a grave, and even dangerous, part of the disease. The nasal discharge is thought, with great probability, to be due to the presence on the mucous membrane of an eruption analogous to the cutaneous syphilide, which constitutes the principal manifestation of syphilis in the infant. This eruption differs from any of those seen in the adult, most probably in consequence of the different consistence of the skin in early infancy. The spots are usually somewhat coppery, but sometimes of a perfect rose colour, and more resemble roseola than any other of the ordinary eruptions; but the eruption is moister than roseola in the adult. On the soles of the feet and palms of the hands the cuticle usually scales off, and the eruption resembles psoriasis. On the other hand, where the cuticle is very thin, and kept moist by the folds of the skin or by discharges (as about the vulva and perinæum, near the anus and mouth, or in the groin), flat mucous tubercles are usually met with. Eruptions are also met with in the mouth in the form of white ulcers or patches, displaying the crescentic outline so common in various syphilitic affections of the skin. Together with these symptoms there is also observed, in nearly every case of congenital syphilis, a clear indication of the profound affection of the constitution, in the wizened and shrunken look, the anxious expression, and the dirty hue of the skin (a kind of dirty-greenish yellow), which imparts to the infant a peculiarly repulsive aspect of old age, even at the threshold of life. There are other symptoms which are not so often seen. Thus various eruptions are spoken of as occurring in a later stage of the disease. In some severe cases the eruption rapidly runs on to ulceration, crusts over the ulcers, and a state resembling that of impetigo is produced."—*Holmes's System of Surgery*, p. 841.

the history of the case. This is a great desideratum, and could it be achieved it would materially lessen the difficulties of the controversy in this the most important of all medical questions. As a matter of course, Mr. Hutchinson's opportunities for observation in a free hospital of such a city as London would be great, and the class of persons would be equally peculiar. He says:—"First amongst the peculiarities by which these patients may be identified, is the *tout ensemble* of the physiognomy. A bad, pale, earthy complexion, a thick and pitted skin, a sunk and flattened nose, and scars of old fissures about the angles of the mouth, often give the countenance so much of peculiarity that the condition may be recognised at a glance. The opinion is usually borne out by observing further that the subject is of short stature, has a large protuberant forehead and a heavy aspect. I may remark that it resembles very closely that which many would consider as typical of struma (or scrofula). Often has it been replied to me by the sceptical, 'What you call the physiognomy of syphilis, I should have said was the very ideal of struma.' It is, however, only the leucophlegmatic, dark form of so-called struma, which these cases simulate. With fair 'struma,' as marked by the transparent skin, clean teeth, long and silky eyelashes, the syphilitic facies has nothing in common. . . . And here let it be observed, that inherited disease does not mar the development of organs by any mysterious or latent influence, but by causing a positive and recognisable attack of inflammation at a period when those organs are in very early stages of growth. Thus, if the teeth are found dwarfed and notched, it is because the patient suffered from severe inflammation of the mouth, with alveolar periostitis, at a time when the teeth existed as soft pulps only. If the skin look stretched and thin, and wanting in healthy softness; or if, on the other hand, it be thick, greasy, pale, and flabby—

and the two conditions are often seen in opposite temperaments—the cause is that at a very early period it was the seat of long-continued inflammation. So with the form of the nose. If its bridge be sunk and expanded, it is that while the bones were soft the child had severe snuffles, masking periostitis and chronic inflammation of the mucous surfaces.

"The *skin*, in these cases, may show one of two states: it may either look thin and stretched, or it may look thick, coarse, and flabby. The first is more diagnostic, requiring for its production a longer continued infantile eruption; but the latter is more common. In both it is usual and almost constant to see numerous little pits in the forehead, cheeks, lips, &c., resembling those of small-pox, and well-nigh invariably there are scars about the angles of the mouth. Very frequently small patches of diffuse psoriasis are noticed about the face, and the skin looks uncomfortably dry. The appendages of the skin are rarely in a healthy state. The nails are stumpy and broken, and show numerous white marks on their substance. The eyelashes are few and ill-developed. The hair is thin and dry."

The author proceeds to deal with the teeth, the eyes, the tonsils, and throat, in a similar form, describing what he has recorded as prevailing indications of the hereditary taint. They are, however, not so precise as those of the skin, nor so likely to be guides for general observation. This writer has, however, done much service in aiding the effort to a better knowledge of the hereditary indices of syphilis.

This question of hereditary syphilis is one of such grave and vast importance, that it is a matter of sincere congratulation, and satisfaction amongst the profession generally, that so much care and attention are being given to it. The responsibilities thrown on the medical adviser are frequently of the most painful kind, in reference to the delicate relation-

ship of husband and wife. Often is he called upon to adjudicate between the infected wife and the apparently sound and healthy husband; to solve problems that puzzle both, and assign legitimate and philosophical reasons for phenomena that have unexpectedly appeared, and which have given rise to most unjust and painful recriminations. The ignorance or indiscretion of the medical attendant in such cases may be the means of perpetuating wrongs of the severest character, and a want of thorough acquaintance with the protean disease may sever the marital tie for ever, where no reasonable or moral ground for such an action exists. Nothing can be more harrowing to a faithful and honourable man, than to find that he is the unwitting cause of physical and mental suffering, which he would have fully guarded against had he known the danger and the means of avoiding it. Equally distressing is it to be accused, on the dictum of an ignorant practitioner, of infidelity and reckless contamination. Scientific observation has now settled beyond dispute the fact, that a man who is himself free from every symptom of disease, but whose blood is tainted with syphilis, may so contaminate his newly-wedded wife, that in a few months after marriage its constitutional effects will appear, and these will not be preceded by any symptoms giving warning of the coming evil.

There are two instances deeply fixed in my memory, in which I have been the means of bringing about a proper and satisfactory understanding between husband and wife, and have arrested the progress of the most disastrous intentions to the peace of their families. In one of these instances, an opinion had been rashly given by a medical man, who, on the appearance of syphilis occurring in an infant soon after birth, jumped to the conclusion that actual phenomenal disease existed in the father at the time of impregnation, and thus accounted for the state of the infant's health. This

case was at once brought under my notice, my opinion being asked in a sort of categorical form, as the error of the former opinion had made a serious impression. I examined the husband most minutely, and I found that he had not had any outward manifestation of the taint for fully three years prior to his marriage. He was by no means a stranger to me, and I knew sufficient of him to be quite convinced that when he married he believed himself to be perfectly well. My explanation of the case, and a fully written opinion, allayed the storm, restored domestic peace, and obviated a most serious rupture in an otherwise happy and affectionate family.*

The other instance was one in which the accusation against the husband was made by members of his wife's family, no medical man having been consulted. I had delivered this lady a few weeks previously of a fine child, and had no reason to suspect anything of a disagreeable

* "It is necessary, however, before describing the symptoms of this disease in the infant, to say a few words as to the origin of the disease, and as to the important and very difficult duties which its occurrence in a family lays upon the surgeon. That the children of healthy women may be born with the constitutional taint of syphilis is so common an observation, that the old idea of infantile syphilis being always, or very often, the result of direct inoculation from a sore existing in the vulva of the mother at the time of parturition, is contradicted by every-day experience, no less than by the character of the disease, in which a chancre is perhaps never, at any rate exceedingly rarely, met with. It is theoretically possible that the child might be so infected; but if that were ever the case, the disease would bear a much stronger resemblance to those unfortunate cases in which surgeons contract syphilitic disease from inoculation of a crack on the finger, during the examination of a venereal sore, than to the ordinary congenital disease here referred to. Still the possibility of such a catastrophe renders it incumbent on a surgeon, when delivering a woman who has a chancre in the vulva, to defend the infant as far as possible from contact with the secretions of the sore, by coagulating its surface with nitrate of silver and coating it with collodion."—*A System of Surgery*, by various authors, edited by Holmes.

nature to follow. Soon, however, syphilitic psoriasis broke out on the infant, with ulceration of the mouth and fauces, that could not be anything else than a syphilide. This state of things led to a relative suspecting that the disorder on the child was from venereal infection. The next stage—that of accusing the husband—was brief and emphatic. At this juncture I was sent for, rather to treat the child than to ascertain the cause of the disease. I, however, learned from the nurse that there was a domestic feud of a very serious character existing, arising out of the child's illness. Wishing to rectify, if possible, what I knew to be a misunderstanding, I gave my opinion as to the true nature of the case, and was enabled also to throw satisfactory light upon the unfortunate circumstance of the child's ailment. I had known the father prior to his marriage some years, and knew that he had been five years previously under an advertising specialist.

Such facts as these, which are by no means isolated, and which occur in the experience of almost all men of extensive practice, go to show how very necessary it is to have a full apprehension of the difficulties which environ this subject, and to exercise considerable reticence and prudence in forming a diagnosis, and giving opinions in relation to hereditary phenomena. The most lamentable blunders may be the consequence of ignorance or haste. A gentleman suffered from and was apparently cured of the disease in November; in the following March he married, his medical attendant having first assured him that he saw no reason against his doing so. In the following June his wife suffered from constitutional syphilis, while her husband continued free from the malady. The husband's blood was evidently poisoned when he married.

A gentleman suffered from, and was apparently cured of, the disease in November; in the following March he

married. His medical attendant had first assured him that he saw no reason against his doing so, and in the following June his wife was suffering from constitutional syphilis. Her husband continued free from the malady. There can be no question as to the poisonous condition of the husband's blood at the time of marriage.

Another gentleman who also married in March, two months after he had been cured of the disease. At the time of his marriage he believed himself to be thoroughly well, and his wife was a fine, healthy young woman, who had never had a day's illness. In July she gradually fell into bad health; in August she miscarried; and in October had sore throat, eruption on the skin, swollen glands in the neck, rheumatic pains, and other distressing maladies, undoubtedly symptomatic of constitutional syphilis (Erasmus Wilson).

A distinguished Edinburgh physician, Dr. Campbell, has recorded the following:—"A young wife, whose husband was a physician, was three times delivered prematurely; two of the children were born alive, but died after a few hours; the third was still-born and decomposed. It was then ascertained that the husband had suffered from primary syphilis six months before marriage, of which he was considered cured, and that he had not experienced any indication of the existence of syphilitic disease."

Sir William Jenner narrates a case of a physician of repute, who when a student contracted the disease. He became apparently well, and five years after he married a healthy woman, and his first child died of constitutional syphilis.

I shall now furnish some cases which will strikingly indicate the wisdom of searching minutely for some clue to the mystery that surrounds syphilitic transmission to the fœtus in utero. I have before laid great stress on the fact that we

have always to be on our guard against latent syphilis. Its latency is its dangerous feature, and it may be said to be its leading characteristic.

The latency of the virus, concealing itself unsuspected in the blood for years, is shown by the following:—A woman, married to a man suffering from constitutional syphilis, gave birth to a child that died with well-marked signs of the disease. Her husband also died; and she, herself apparently healthy, married again to a sound man. Four years after her *former* marriage she gave birth to a child as syphilitic as her first one! A widow, having constitutional syphilis, was seemingly cured; she subsequently married again, and had two children, both of whom died syphilitic. Her second husband died soon afterwards from fever, *never having suffered from syphilis.* She married a third time, and from this husband had twins, which also died syphilitic. During all this time the mother appeared to enjoy good health.

This circumstance is the only one which enables us to account for many of the singular evolvements of this disease, where it could have no immediate origin. This phase of the question has been ably treated and sustained by one of the greatest authorities in England—viz., Langston Parker, Esq., M.R.C.S., and honorary surgeon to the Queen's Hospital, Birmingham, who for many years has devoted much time and observation to the more subtle characteristics of syphilis. His views are put in a very concise form. He says—"Syphilis must have a starting point, either in one parent or the other, or both; and although this is frequently found in the mother, still I believe it is much more common to find it in the father."

The mother may become the source of disease to her offspring in four different ways.*

* "*Congenital or hereditary, and infantile syphilis.*—The poison of syphilis, when it has been conveyed into the constitution from an

1. She may be diseased before conception.
2. She may become diseased after she has conceived.
3. She may disease her infant in its passage through the vagina or external parts—a source of infection formerly supposed to be very common, but in reality very rare.
4. She may disease her infant after birth.

The father has, however, generally the most direct influence on the health of the mother and child, and it is generally to him that, in the first instance, the origin of the contagion may be traced. The following cases will illustrate the theory propounded in reference to the superior influence of the male.

CASE XCVI.—*Five children died of hereditary syphilis. Father had chancre three years before marriage.*

L. Z., from Tasmania, aged 33, consulted me in 1863. He had contracted chancre in 1852, which he stated was followed by what must have been syphilitic psoriasis, which attacked both the body and the palms of the hands. Three years subsequent to infection, all manifestation of syphilis having disappeared under some treatment which he had undergone, he thought that he was cured, and he married. He continued to believe himself free from taint, until his first child was born dead. The second, soon after birth, was covered with syphilitic lepra, and died. The third child died also. The fourth did not long survive. The fifth was born dead, with diseased placenta, evidently of syphilitic origin. The mother was a lady of the most unquestioned

infecting sore, saturates the blood, and vitiates, as it would appear, the composition of many of the secretions, and amongst others of the semen. From the blood, or from the semen, according as it is the mother or father who is the subject of the original disease, the fœtus often becomes impregnated. This gives rise to a train of symptoms in the infant, which strikingly resemble, and strikingly differ from, those of secondary syphilis in the adult" (Lee).

respectability, and she told me that she did not recollect having had any sores on her person.*

CASE XCVII.—*Premature delivery of dead child. Father had syphilitic lepra twelve months before marriage.*

A trainer of horses consulted me about the same time as the patient last mentioned. He was suffering from syphilitic lepra. The eruption disappeared under the usual treatment, but he was advised by me to continue taking medicine

* Dr. Behrend (*Journ. für Kinderkrankheiten*, xvii.), referring to the above discussion, lays down the following positions as to the results of his own experience :—1. Syphilis may be imparted to the fœtus either by the father or mother, or by both together. It is most frequently communicated by the father. 2. The general effect of this syphilitic poisoning of the fœtus is the production of a diminution of its vital energy—a diminution varying in intensity according to the degree of virulence of the disease in the parents, and the congenital vital capabilities of the fœtus. 3. Under the influence of a very considerable diminution of this vital energy, the fœtus dies between the third and sixth month, and is expelled. Most of the cases of so-called habitual abortion depend upon the syphilitic condition of one or both parents. 4. If the fœtus remain in utero until the eighth month, it may die either during the act of labour or soon after, mostly exhibiting very remarkable appearances, that can only be ascribed to syphilis. 5. There are chiefly excoriation on various parts of the body, especially the feet and hands, as if these had been scalded; rhagades at the angles of the mouth and alæ nasi, superficial ulceration of the nares, condylomata within the mouth, pemphigus, rupia, ecthyma, cutaneous ulcerations, tophi, and caries. 6. To the doubtful, but very probable, signs of syphilis, appertain suppurations of internal organs, but especially of the lungs and thymus; for the due estimation of which, however, additional observations are required. 7. Roseola syphilitica, appearing in a fortnight or later, in a healthy child, may be a consequence of congenital syphilis; but it may also have arisen from a fresh infection acquired during or immediately after birth. 8. The birth of a child suffering from congenital syphilis fully justifies the anti-syphilitic treatment of the parents, especially the mother, as soon as she becomes pregnant again, even if she has not just before, or at an

for some time. This precaution, however, he did not adopt. Twelve months afterwards he married a healthy young woman, who was in a few months prematurely delivered of a dead child. The second child was brought into the world at the full period, and appeared well and hearty. In a month after, a dry eruption appeared round the mouth, with several large vesicles of pemphigus on the chest. This child was treated specifically, and cured.

In this case the mother was not diseased at all, hence it is presumed that the tainted semen was the vehicle of contagion.

CASE XCVIII.—*Hereditary syphilis in an infant. Pustular syphilide on the father. Mother not tainted.*

A patient came under my care in the Melbourne Hospital six years ago, with a pustular syphilide. While he was under treatment I was requested to see his child, which was suffering from a skin disease. The mother said it was very well when born. Shortly after birth an eruption appeared upon the skin, and the child began to waste. The disease was, without doubt, syphilitic. I examined the mother's breasts, and found them quite free from sores, fissures, or anything abnormal. She also stated that, to her knowledge, she had not had venereal disease.

I treated the child specifically, but not the mother, and it recovered rapidly. The semen of the father had in this case contaminated the fœtus.

earlier period, herself manifested symptoms. It is through the mother we must influence the fœtus, and endeavour to save its life. 9. If the mother or father manifest signs of the syphilitic dyscrasia, we must at all times employ anti-syphilitic treatment, in order to enable them to propagate sound children. 10. A child born with symptoms of syphilis must be treated as early as possible for these, in order to give it the only chance of living.

These cases are remarkable, as indicating the apparent immunity of the mother, although the child was manifestly and incontestably diseased. The latency of the virus in the first case is apparent, for no outward phenomena presented themselves at the time of marriage, so that the father felt sure of his safety and that of his wife. His neglect to continue the eradicative treatment led to the disastrous result mentioned. It is not for me to say whether the virus permeated and fixed itself in the mother's system or not, to fructify at some other period. She gave no sign of its having infected her, it is true, but that is no criterion. Was it latent in her as long as she gestated and suckled? Would it at some future time become active in her organism? It is safer to answer these questions in the affirmative, as my observations have proved. The latency of the poison is our difficulty.

"There is no such disease in the world as syphilis, except itself—nothing resembling, nothing bearing the slightest similitude to it. *Here, and here only, is a persistent poison remaining in the blood for years*, neither occasioning its own elimination nor the destruction of its victim, but continuing for an unlimited space of time, interfering sometimes more, sometimes less, with the healthy processes of nutrition, and probably *vitiating and spoiling every one of the secretions.* In other diseases, if the secretions are universally or even extensively poisoned—and probably in many instances they are so—there is neither time nor opportunity for making the discovery; the patient is too much enfeebled to permit of the usual intercourse of society, and the malady terminates for good or evil too soon. But in syphilis there are both—for it may endure for years—giving so little annoyance that the patient is unconscious of its presence. There does not seem to be anything unphilosophical in supposing that, where the blood is thoroughly tainted, *every secretion and every product of it should be tainted also.*

"Probably this is too comprehensive an assertion, but there is one secretion that cannot be dismissed lightly, and however unprepared we may be to admit the doctrine, and however contrary it may seem to the laws of the animal economy that two different—nay, totally different—fluids should be vehicles of one and the same poison—I think a careful examination of facts will convince any unprejudiced inquirer that the *seminal fluid possesses this most unhappy quality;* and that in the mysterious process of generation it may be the medium of contamination without the intervention of a single drop of purulent matter. Now, this is, as far as I know, a new assertion, and will probably prove startling to many; but for that very reason I entreat for it a calm and unbiassed examination—not the examination of authorities and books, but of the cases actually met with in practice. Cases are of frequent occurrence that cannot otherwise be satisfactorily explained; numbers exist at this moment where the absence of such explanation has led to distrust, misery, and estrangement. It can only be established by observation and experience, and to these unerring tests I willingly confide it.

"In the month of July, 1831, a gentleman married, being, as he supposed, perfectly free from any syphilitic taint. In the April following, his wife was attacked with condylomata at the anus, tubercular swellings at the pudendum, cracks at the corner of the mouth, and patchy elevations on the dorsum of the tongue. All this time the husband never had a sore or spot of any description. He was examined carefully, and exhibited no symptoms, and by his wife's account he had taken no medicine since their marriage that had tainted his breath, or that had made his mouth sore. She had never been pregnant, and therefore could not have contracted the disease from a fœtus in the utero; nor had she ever a chancre or sore that could be called a primary

symptom. Both the husband and wife were subjected to full specific treatment, and the symptoms entirely disappeared.

"In July, 1840, a married gentleman, the father of several healthy children, whilst on business in London, unfortunately had impure coïtus, and contracted a sore on the penis, which was pronounced not to be venereal, and healed by topical applications. He returned in August, and in the latter end of September consulted me for sore throat, which I pronounced to be syphilitic. He appeared really distressed, but leaned with some hope on the opinion of the gentleman who first treated the case, who did not think it syphilitic. In January, 1841, he came to me in great fright, requesting me to see his wife, whom he feared he had disordered. I found her with several spots of button scurvy, and gave my opinion to the husband that they had a syphilitic origin. Still he was unwilling to believe in a calamity which he dreaded beyond anything in the world, and had a surgeon of eminence in consultation, who decided at once it was button scurvy, and not venereal, and seemed to be fortified in the opinion by the fact of the lady never having had any previous syphilitic symptoms. In the course of a few days, however, the question was settled by the birth of a child, who died within a week, of unmistakable confirmed lues. Now this infant had been begotten in April, three months before the father's first contraction of the ailment, and must therefore have been poisoned through the circulation of the mother at a considerable period subsequently. The question is, how did that circulation become contaminated, seeing that the father had never a sore capable of furnishing a drop of matter, and the mother never a symptom of any description until the doubtful one of button scurvy, which appeared only a few days before her confinement?"*

* Langston Parker.

In the case which I mentioned immediately prior to the quotation just made, the escape of the mother, although evidently in contact with active syphilis, is worthy of notice. The child alone was infected apparently, the semen having conveyed the poison to the ovum, or germ. I have before argued on the probability of the mother when gestating being proof against the virus to a considerable extent, and this case, I think, in conjunction with others, bears me out in the opinion. Another very important fact presents itself here—viz., the destructive influence of the syphilitic virus in utero. It is seen that in the majority of cases the children are born dead, or so seriously injured that they die during the first year; and in the valuable statistics collected by Mr. Acton it is observed that children have to bear the chief taint of the syphilitic invasion.

CASE XCIX.—*Syphilis communicated by marriage four years after disappearance of symptoms. Death of infant.*

An officer, who had retired from the army, contracted chancre in the year 1859. While under treatment he had sore throat, and syphilitic psoriasis on the body, the hands, and the feet. The tongue was ulcerated. Four years after his supposed cure, having had no symptoms of syphilis during that time, he married a young and healthy wife. She became pregnant, but her health gave way. Between three and four months after conception she suffered from irritation of the bladder, and bearing down of the womb; she had small nodules on each labia, with syphilitic scales on the pit of the stomach. Under treatment these symptoms disappeared during the seventh month. She was delivered at her full time of an emaciated male child, which died forty-eight hours after its birth. She was pregnant a second time, and went the full period, but the child was born dead.

During the whole of this pregnancy she had sore throat. Her third child was delivered at the full time, apparently quite healthy; but, five weeks after, it had a scaly eruption on the head and left cheek, and condylomata at the verge of the anus. Her fourth child only lived three days after its birth. On examination by the speculum soon after this, I found a large syphilitic ulcer on the anterior lip of the uterus, which was treated by injections, and local applications; constitutional and anti-syphilitic treatment were adopted, and after apparently complete restoration to health, she left with her husband for Europe.

Case C.—*Syphilitic taint and miscarriage.*

A policeman contracted chancre in 1860, which he healed up himself by means of black wash. Four months after, believing himself well, he married a plump, healthy-looking Irish girl, and soon after he suffered from syphilitic sore throat; at the same time his wife had ulcers of an evidently syphilitic character on the labia. She became pregnant, and miscarried at three months. She became again pregnant, and was delivered prematurely at seven months. A third parturition was at the full period, but the child only lived twenty days, covered over with a true syphilitic eruption.

The transmission of syphilis from the mother to the child at the eighth month of gestation is illustrated in a case given by M. Chabalier, in the *Journal de Medicine de Lyons*, May, 1864. That gentleman was consulted by a lady who had three indurated sores on the labia. She stated that her husband had been absent for five months, and had only spent one day with her all that time. She suspected having been contaminated on that day. She was advised to use calomel ointment, and take iodide of mercury pills. Twenty-

five days after this treatment the patient was delivered of a healthy boy. For fear of complications, M. Chabalier asked the mother to bring up the child by hand, and this was attempted, but some time afterwards she was persuaded by her friends to hire a wet-nurse. When seven weeks old the child had a general papulo-vesicular eruption, with mucous tubercles on the scrotum, tongue, &c. The wet-nurse was discharged, and the child partly recovered under the use of the bichloride of mercury. At the same period syphilitic symptoms appeared upon the mother in Italy, where she had joined her husband. The mother eventually recovered, but the child, owing to sudden weaning, wasted away and died. It seems to us that the lady was contaminated at an earlier period than the eighth month of gestation. She was confined 30th October, and the visit of her husband, to which she attributed her misfortune, took place on 28th August. This would make the seventh month of gestation. Here very probably the fœtus suffered by placental communication at that time.

A clear and precise description of a child suffering from the taint is given by one of our most reliable observers* on this subject, which will enable the reader to recognise the features of the disease when present. He says:—"If the child be born at the completion of gestation, and do not at once display the disease which lurks in its system, it remains, to all appearance, well for the first few weeks, and is often plump and well nourished during that time. This healthy aspect is in most cases soon lost, though some children, who are but slightly affected, retain a flourishing appearance throughout the disease. The child *snuffles as with a cold*, is fretful and wasting. By the end of three or four weeks he has generally, but not always, lost the robust

* Berkeley Hill.

condition he possessed at birth. The child soon gets to look like a little old man. His skin is wrinkled and loose, of a muddy or bistre hue, from a dirty yellowish tinge pervading it. This colour is best marked on the forehead, chin, and other prominent parts. The skin, though loose, breaks around the mouth, eyes, and nose into chaps, that bleed easily. The cuticle peels from the fingers, hands, and feet, on which coppery patches can generally be found. The hair of the scalp, eyebrows, and lashes drop; and the nails are small and ill-developed. The child's cry is especially worthy of remark: it is hoarse, peculiar, and snuffling, from the nostrils being stuffed with thick, yellow mucus. The inside of the mouth and palate is beset with white patches and sores. Around the anus there are also bright coppery-red patches. In the course of a few weeks the wasting becomes extreme, the child is seized with vomiting and diarrhœa, bronchitis, and pneumonia, or some other visceral disorder, by which his remaining strength is exhausted, and he dies."

Sometimes the whole of the above symptoms are present, but commonly only a portion of them; still they are most of them characteristic, and can scarcely fail to be instructive to the parents and nurse after reading the sketch. It is of great importance that the symptoms should be recognised, and specific treatment adopted as early as possible, as the earlier this is done the greater are the probabilities of the infant being saved. The importance of an early discovery of the taint is further evident by reason of the danger that exists of its inroads upon the viscera of the child, as it is usual for hereditary syphilis to assume the tertiary as well as the secondary forms. Prompt and decided treatment will, if adopted early, usually check visceral disorganisation, and save the child's life, especially where the taint is congenital, and not absolutely hereditary. This fact I have

more than once demonstrated to my complete satisfaction, where I had every reason to believe that fatal results would have followed neglect or delay.

Syphilis may be expected to make its appearance during the first few weeks, and the parents should be—if they have any suspicion that either of them have been tainted—on the alert to observe and note the earliest symptoms that may appear, especially the snuffling, which will generally be one of the premonitory indications. This is by no means unimportant advice, as Mons. Trousseau thinks "the disease generally proves fatal when it appears within a month after birth, but is curable when it occurs two, three, or four months later" (*Gazette des Hôpitaux*, 1848). Mr. Acton, who is an eminent authority in all matters of a syphilitic character, but with whom I do not accord in reference to the communicability of syphilis, says—"When secondary symptoms occur in an otherwise healthy infant, and its case is treated early, the most favourable results may be expected; but if the child is puny, the mother in bad health, or the disease has already been allowed to make great progress, we must not give a favourable opinion. In even the very worst forms the complaint may be entirely cured, provided the parents have the ordinary means of comfort, and will follow the directions of the surgeon; but unfortunately these poor little children are often neglected, and die from want of care and breast milk, victims to syphilis, mercury, scrofula, and neglect."*

The mortality in infant life is always great, indeed greater

* "Nasal catarrh is a prominent symptom in the syphilitic child, and is so inconvenient to it as to prevent its suckling, and by this to lead to wasting. It is so distressing to the infant that the nurse or mother endeavours to supply food by hand-feeding, but this refuge is more dangerous than the snuffles, and should not be resorted to. But one per cent. perchance of children brought up by hand live; hence a great authority once said, "he regretted that one had lived, for if all had died the abominable practice would have been abandoned."

that it might be,* and it arises from the vast number of ailments to which the infant is subject, as well as from the carelessness of nurses; but to my knowledge there are far more cases of early mortality than is generally allowed. It is the habit of some practitioners to overlook altogether the fact of infantile syphilis, and never suspect or record it, so much is the subject neglected. When more attention is paid to infantile syphilis, I feel assured that the Registrar-General's tables will exhibit a material alteration in the number of deaths recorded from that cause. In this disease and its multifarious phenomena, we are much in want of correct observation.

"Moreover, of the many syphilitic children born at the full term of gestation and surviving it, a considerable number die within a few months after birth. "The Registrar-General's returns for 1866 give 408 deaths from syphilis in that year. The great majority of these are children. This number, great as it is, gives no idea of the real amount, as from the shame attaching to this disease, it is assigned as a cause of death in public practice only, and seldom or never in private practice." *

In a large number of cases of children tainted with syphilis the disease does not prove fatal, but operates as a wide-spread and powerful degenerative influence. In 1866,

* "Syphilis, like rickets, is a preventible disease. The mortality from syphilis is *far greater* than appears in the Registrar-General's returns. It is only in recent times that physicians have begun to appreciate *the gravity of the chronic constitutional consequences of this affection on the individual, and on his offspring.* The frequency with which cases of hepatic diseases—of so-called tubercular phthisis, of Bright's disease, of brain disease—are referable directly to syphilis, and the many cases of so-called strumous disease in the child due to inherited syphilis, *become daily more apparent.*"—*Dr. Jenner, F.R.S., President of the Epidemiological Society, in his Inaugural Address of* 1866-67.

* *Westminster Review.*

at the Hospital for Sick Children, "174 children were affected with syphilis out of 1007 surgical cases seen, or about one-fifth;" and out of 251 orphans placed out during three years, "though all were healthy when entrusted to their foster-mothers, thirty-eight subsequently sickened of the disease they had inherited of their parents, and two of them infected their nurses with it." When children affected with constitutional syphilis are born alive and apparently well, "the existence of the taint may become manifest in a few weeks. At the end of about a twelvemonth these symptoms may disappear; it was, until quite recently, supposed that all traces of hereditary syphilis had then departed, but this is by no means invariably the case; the poison may be latent, and again exhibit its virulence during growing youth."*

The Registrar-General's reports of the number of deaths caused by syphilis fail to give the faintest idea of the real fatality of this all-pervading disease. For example, "a child suffers from bronchitis; it is registered to die from bronchitis; but the child might neither have the bronchitis, nor, supposing it to have suffered from that disease, have died from the bronchitis, if it had not been first the subject of such a constitutional disorder. The subject of constitutional syphilis dies from disease of the spleen; it dies from disease of the liver; it dies from inflammation of the bowels; it dies from infantile cholera—and is registered as having died from these diseases, and not from syphilis. I mention these as common things for which the child is brought to the hospital, and found to be a subject of constitutional syphilis, and that it is which is leading to all its trouble." After making this statement respecting the disease in children, he adds—"But having had large experience among adults, I would express also my opinion of the frequency with which

* Op. Cit., p. 219.

it is the cause of illness and death there; not merely among the poor, but among the better classes. Within a few months I have seen a case of so-called Bright's disease—that is, kidney disease—which was really syphilitic. I have seen a man die from a disease which ten years ago would have been registered as an anomalous form of cancer of the lung, but was really syphilitic. I have seen a man leave the hospital something better, but he might have died in it, and probably has died by this time, with extensive disease of the liver, syphilitic in origin and nature. At the same time I had in the hospital a girl of fourteen, who had also disease of the liver and disease of the eye—a poor miserable child for life, because her parents had syphilis. Ten years ago, certainly fifteen years ago, no one would have supposed these syphilitic; now there is not a shadow of doubt about it. It is ordinary current professional knowledge" (Sir W. Jenner).

In this colony syphilis is very common, and is a by no means unimportant cause of our large infantile mortality, although it often fails to be registered as such. Circumstances have frequently come to my knowledge where I have been morally certain that the children have died of syphilis, but in the registration of the death another disease has been given as the cause. On referring, for the sake of verifying this statement, I have found that death has been attributed to atrophy, bronchitis, catarrh, inflammation of the lungs, &c. I mention this fact for the purpose of suggesting to all concerned in the management of sick children, that they should be as vigilant as possible in the search for syphilitic symptoms wherever it may be deemed at all probable that they might appear, and to be careful that no mistakes occur. If syphilis should be the active principle in the diseased state of the child, no treatment but a specific one can save its life. It is to be regretted also that the cause of death is often suppressed, from feelings of delicacy and from prudential

motives. Statistical information is on this account very barren, when, as I am of opinion, it might be much more reliable, and of considerable service. Without accurate statistics, a difficulty stands in the way of a complete knowledge of the mortality from infantile syphilis.

CASE CI.—*Abortion at seventh month from syphilitic contamination by husband supposed to have been cured. Placenta disorganised by syphilitic deposits.*

A soldier's wife, of the 92nd Highlanders, sent for me in haste, during the temporary indisposition of Surgeon Stewart, of that regiment, complaining of great pain of a bearing-down character. She was feeble, with rapid pulse, fetid breath, and coated tongue. She informed me that she was pregnant, and was in her seventh month, but—using her own language—she had not felt the child move for a week or two. On feeling her pulse, I observed a palmar eruption of a syphilitic character. I examined the uterus, and found the mouth dilated to about the size of a florin, from which exuded a sanious and offensive discharge, indicating the death of the fœtus. Brandy, opium, and beef-tea were administered from time to time until the pulse gained more power, and the general temperature of the body became normal. Steady pains set in, which continued with regular intermission until she was delivered, twelve hours after, of a dead male child. The cuticle had commenced to separate. The body was of a dark colour, and the after-birth could be broken up in the hand like a lump of grease, being full of the usual syphilitic deposit. The woman denied ever having had syphilitic sores, but her husband stated that he had had a bad chancre six months before marriage, and thought he was cured. On his submitting to examination, I found that, although the skin was quite healed, there was induration

behind the gland, indicating the previous existence of a genuine Hunterian chancre.

In diagnosing the condition of the infant, it is necessary to make a distinction between congenital and hereditary disease. The former may be defined as the tainting of the fœtus *in utero* by the mother, after an impure coït during gestation: in other words, that the fœtus receives the virus during its growth in the womb. The hereditary disease would occur by the father supplying contaminated semen at the time of impregnation, thus communicating the taint to the ovum, he being the subject of latent or active syphilis. The importance of correct information here is great, inasmuch as the prognosis will be much influenced by it. Congenital syphilis may be treated successfully, but few cases of hereditary syphilis can warrant a favourable prognosis.

With respect to infantile syphilis, the question of the transmission of taint from the parents to the child is about being set at rest. So much additional light has of late been thrown upon the subject, that little diversity of opinion now exists in comparison with what some time ago was current. The tendency of opinion evidently is towards the view that by any and every means the syphilitic taint may be communicated, whether by the secretions or by dry contact, no obstacle standing in the way of its subtle motion. Its most fatal and serious influences are to be found in the case of the infant subjected to the hereditary taint; it is here that its most destructive power is manifest. As will have been seen in the cases cited from my own records, and quoted from those of other syphilographers, the infant of diseased or tainted parents is subject to serious cutaneous eruptions and ulcerations of the mucous membranes, which exhaust its vital powers, and bring it to the grave generally in the first year of its existence; or should it survive, if the treatment has

not thoroughly eradicated the disease, there will be a life of feebleness, and sequelæ of a tertiary character may cut it off in a few years.

CASE CII.—*Congenital syphilis. Diseased bronchial glands. Syphilitic tubercles in throat.*

Two years ago a child was brought to my consulting-room, apparently suffocating. The breathing was difficult in the extreme, and indicated something unusual in the condition of the bronchiæ. Auscultation furnished evidence of extensive bronchial irritation. There was true syphilitic rash all over the body, with mucous tubercles at the anus and throat. The mother told me that during the time that she was carrying the child, both she and her husband had suffered from primary syphilis. A short course of anti-syphilitic treatment restored the child to health.

Dr. Wilks, of Guy's Hospital, has drawn the attention of the profession to this form of congenital disease of infants, in some excellent papers read before the Pathological Society, London.

When the syphilitic constitution is transmitted to the offspring, there are certain physiognomic signs which indicate its existence. It resembles very much the ordinary scrofulous diathesis. The head is rarely well formed. The stature is stunted and belly large; muscles flabby; diseased joints not uncommon. The nose is sunk and flattened, the result, according to Mr. Hutchinson, of snuffles, or inflammation of the membrane of the nose; and opacity of the cornea from early corneitis may be observed, as also scars of old fissures about the angle of the mouth. Occasionally too the glands of the neck are enlarged and hard, but the upper lip is not thickened. The complexion is of a pale earthy tint, contrasting strongly with the transparent tint of a scrofulous

person of the sanguine temperament. The skin is sometimes thin and stretched, but is also dingy, coarse, and flabby, and shows scars or marks, the remains of former disease; it is uncomfortably dry, often with patches of psoriasis. The hair is also dry and thin; the eyelashes few, ill-developed, and broken; and the nails have the same character, being stumpy and brittle, and often ragged.

"The *teeth*, however, offer perhaps the most characteristic marks of the syphilitic constitution. The teeth of the second dentition are modified in development so as to be small, and *rounded or peg-shaped, instead of flat;* the upper central incisors sometimes presenting a broad shallow notch in their edge, which is usually obliterated by the twentieth year. Their colour is a dirty yellow."*

The state of the teeth constitutes one of the most valuable signs we have of hereditary syphilis. Its value depends not only upon its constancy, but on the circumstance that it is impossible that these structures can have been altered in form by disease in later life. I have had several cases in which, as the patient was between twenty and thirty years of age, it was very possible that the sunken nose, scars at the angles of the mouth, bad complexion, &c., might have resulted from acquired syphilis, but in which *the strongly-characterised state of the teeth wholly did away with such suspicion.*†

* Dr. Laycock.

† "The recognition of the subject of inherited syphilis, at or after the age of puberty, may be sometimes made with great certainty, and is at others surrounded by difficulties. Our most valuable aids are the evidences of past disease, more especially of the inflammations which may have occurred in infancy. A sunken bridge of nose, caused by the long-continued swelling of the nasal mucous membrane when the bones were soft, a skin marked by little pits and linear scars, especially near the angles of the mouth, the relics of an ulcerating eruption, and a protuberant forehead, consequent upon infantile arachnitis, are amongst the points which go to make up what we recognise as an heredito-syphilitic physiognomy. Added to them we have very

With reference to the hereditary phase of the question, much material for consideration exists with those who desire to enter into marriage relationships after having had at some time or other a syphilitic taint. There is perhaps no more difficult question put to the surgeon than the one, "Is it safe for me to marry?" The latency of the syphilis is its *bête noir*. It is that which often causes the best-informed surgeon to hesitate, although he knows that a very great many men marry, and their offspring escape the taint. Should the surgeon have had the entire conduct of the primary attack in the parent, and have persistently continued a course of eradicative treatment, he will not have much hesitation in answering the question in the affirmative. Many points are, however, to be considered—the virulence of the attack; the length of time since the cure or disappearance of the outward phenomena; the temperament and general state of the health. Still, under the most favourable circumstances, the surgeon must not—if he wishes to avoid the consequences of a blunder—venture upon a *positive*

valuable aid furnished by the shape of the incisor teeth. In these patients it is very common to find all the incisor teeth dwarfed and malformed. Sometimes the canines are affected also. These teeth are narrow and rounded and peg-like; their edges are jagged and notched. Owing to their smallness their sides do not touch, and interspaces are left. It is, however, the upper central incisors which are the most reliable for purposes of diagnosis. When the other teeth are affected these very rarely escape, and very often they are malformed when all the others are of fairly good shape. The characteristic malformation of the upper central incisors consists in a dwarfing of the tooth, which is usually both narrow and short, and in the atrophy of its middle lobe. This atrophy leaves a single broad notch (vertical) in the edge of the tooth, and sometimes from this notch a shallow furrow passes upwards on both anterior and posterior surface nearly to the gum. This notching is usually symmetrical. It may vary much in degree in different cases; sometimes the teeth diverge, and at others they slant towards each other."—Jonathan Hutchinson, in *A System of Medicine*, by various authors.

guarantee that the offspring will escape. The probabilities may be strongly in favour of immunity, and the surgeon can venture no further.

"Syphilitic pemphigus is an eruption of bullæ on the skin, characterised by the appearance of rose-coloured spots, followed by the formation of bullæ, filled with pus, and covered with brownish-yellow, thin, and lamellated crusts.

"It is most commonly congenital, occurring before birth, of which Gilibert, MM. Paul Dubois, Morin, Depaul, myself, and many others have seen instances. Nevertheless, it does not sometimes come on till one or several days after birth.

"M. Dubois was attending a young married woman, whose husband, having contracted primary syphilis, was so imprudent as to cohabit with her, and also was guilty of equal imprudence in being very careless in respect to the treatment of his case.

"Some months afterwards secondary symptoms appeared in both of them; the young wife became pregnant, and was delivered at the end of four and a half months of a fœtus which appeared to have been dead some days. It was then, and through this miscarriage, that M. Dubois learnt the above history. He placed the wife and husband under an anti-syphilitic plan of treatment, which was not followed with so great an improvement as was desirable. Three months after this a second pregnancy occurred, which this time reached very nearly the full term. The accouchement occurred unexpectedly, and terminated in the birth of a dead child, which was covered with pemphigus. This young woman having become a third time pregnant, from the advice of one of her friends thought she might be more fortunate if she changed her medical attendant. M. Moreau was called in, and his new patient had reason to think that fortune would be more favourable to her, for she went this time the full period and brought forth a living child, and to

all appearance healthy; notwithstanding, in a fortnight or three weeks afterwards, a syphilitic eruption appeared. The child was placed under a specific plan of treatment and was cured" (Dr. Bouchut).

Well-marked congenital pemphigus may, then, be considered as a manifestation of syphilis.

It can now no longer be doubted that the real question which occasions a difficulty in this dispute, and which I would by no means appear to soften down, is to know whether this form of pemphigus can be recognised. Yes, this is the whole question. For my part, I believe that this diagnosis is possible, and presents as many points of certainty as any medical assertion. I will prove it.

First, then, if pemphigus is congenital, there can be no doubt on the point, for always, up to this time, congenital pemphigus has been met with in the offspring of syphilitic mothers.

But the pemphigus may not be congenital. It may come on some days after birth. This may be simple pemphigus; it may be pemphigus caused by the deleterious influences of poverty on the milk of the mother, and on the constitution of the child. But here, again, in the greater number of cases, we find syphilis in the father or mother, or such retrospective information as is sufficient to establish the existence of an anterior syphilitic infection. There is in this, doubtless, only a coincidence, and every coincident cause is assuredly not the exciting agent of a concomitant lesion. But if the relation is not decided on, it presents at least some marks of probability. The truth hangs upon a single thread—that is to say, on the presence of a collection of concomitant phenomena. Let us see, then, what are the phenomena which we should consider sufficient to establish the syphilitic nature of pemphigus. This probability once established, we shall notice that in one case the bullæ are

filled with well-marked yellowish pus, whilst in the simple pemphigus they contain a liquid serosity, clear or opaline. In the former, the colour of the abraded skin is red and livid; elsewhere of a clear pinkish blush. In the former, the skin is eroded, even ulcerated; in simple pemphigus, ulceration is never present. Bullæ in the former are coexistent with syphilitic lesions in other organs, with syphilitic cutaneous affections, or syphilis attacking the mucous membranes, with scattered abscesses in the substance of the thymus gland, or the lungs, with fibro-plastic degeneration of the liver, with onychia, &c.; whereas, in simple pemphigus, the bullæ constitute the sole disease. Lastly, one is cured with difficulty, and when it is cured, it is by means of mercury given to the child and to the nurse; whilst the other is cured by merely simple remedies.

Syphilitic pemphigus is a serious disease, which, depending upon a congenital vital lesion, triumphs over all the organic nutritive efforts, and holds out but few hopes of recovery. It often causes death of the children, and that in a few days. There are some newly-born children strong enough to offer a longer resistance, but who in the end fall victims. Some are cured when the syphilitic pemphigus is uncomplicated by any severe visceral affection; but when at the same time those changes which I have mentioned are present in the thymus gland, liver, and lungs, then death is certain.

The treatment of this form of pemphigus is a specific treatment. The bullæ are not to be considered; we must go farther back, and rapidly effect an alteration in the constitution and blood of the children. In this we shall succeed by means of mercury, either given through the medium of the milk of the mother or nurse, or administered directly to the children.

When the mother nurses she must take every day two

pills, containing each half-a-grain of the bin-iodide of mercury.

If it be a wet-nurse who is suckling the child, she must be warned at the commencement of the possible risk she runs of being infected; she must be asked to undergo the treatment necessary to restore health to the child, and if she agree, she need only take a pill every day, containing half-a-grain of bin-iodide of mercury.

SYPHILIS COMMUNICATED BY VACCINATION.—I now approach a question which will, I am aware, meet with considerable criticism, and one that has already been the cause of earnest and prolonged discussion; and I at once announce at the onset my firm belief that syphilis is in very many instances communicated by means of "child's vaccine lymph." This opinion I have deliberately formed, and as firmly defend. The evidences of such being the case have, in my practice, been numerous and well pronounced; so distinct, indeed, that no doubt whatever could exist as to the nature of the eruptions, and the certainty of transmission. Many of my medical confrères in Melbourne hold an opposite opinion, but notwithstanding the respect in which I hold most of them, I am compelled, in the interests of truth, science, and the common weal, to differ *in toto* from the commonly-received opinion; and alone, if necessary, I am prepared to stand out in defence of the statement as to the possibility of transmitting syphilis by means of vaccination.

It is a subject which hitherto has been treated with unpardonable levity and recklessness, and the very fact of the disbelief in syphilitic contamination by vaccination, has led to the utter ignoring of the dangerous concomitant that may lurk unseen in the otherwise useful lymph. It is suggestive of the most painful considerations, to witness the mode in which the public vaccination of the people has been

conducted since the advent of the notorious "Avonvale" to our shores. I have nothing to do with the follies that allowed the small-pox to be introduced from that vessel, but I reserve to myself the right to express my opinion freely on the method of re-vaccination, which has been so generally and emphatically enforced by authority. That indiscriminate re-vaccination is irrational and mischievous, as now conducted, I have no hesitation in asserting, notwithstanding the high authorities which may be quoted against me by the advocates of wholesale and universal vaccination from "child's lymph!" I admit that re-vaccination may be called for, but wherever it is, some attention should be paid to the source of the lymph, including the history of the constitution supplying it.

"Dr. Waller, of Prague, believes himself to have proved by numerous experiments that the blood of a tainted person, applied to a wound on a healthy one, is capable of corrupting his whole system. This fact, if confirmed, will fully explain how it is, and how it is inevitable, that all the secretions of sufferers from constitutional syphilis should be poisonous, and enables us to understand how vaccination may become a contaminating process.

"Dr. Whitehead records a case observed by himself, in which he was the unconscious instrument of conveying the venereal poison from a syphilitic child to a healthy one, by taking vaccine lymph from the arm of the one and inserting it in the arm of the other. Previous to vaccination, both it and an elder child of the same parents were healthy; and it appeared upon inquiry that the infant from whom the vaccine matter was taken, had suffered soon after birth from purulent ophthalmia, accompanied with blotches on the skin, for which it was several weeks under treatment. The newly-tainted child died when four and a-half months old of constitutional syphilis. While sucking its mother it infected

her system through the nipples, and she died at the age of thirty-eight, 'about three years after the invasion of the mischief occasioned by vaccination.' Dr. Whitehead has notes, more or less complete, of nine similar cases. We believe that many such might be collected" *(Westminster Review).*

It is said by some that they never see syphilis communicated by vaccination. My answer to such observers is, that they do not know syphilis when they see it; for many of the so-called bad arms after vaccination, which have not been suspected by the vaccinator or by the parents, have in my opinion been positively syphilitic.* Nor is it to be wondered at by those who are capable of discerning, that syphilis is transmitted so frequently by vaccination, when we consider the extreme carelessness with which lymph is frequently collected by those whose duty it is to conduct public vaccination. Children are brought indiscriminately into the government office, and are at once hurriedly vaccinated from the arms of others, of whose history nothing whatever is known, nor even any inquiry made. Because a child is found to be plump, and in fair average health, lymph from it is supposed of necessity to be suitable, and no other precaution is taken. The history is not for a moment brought under observation, although were the truth always known, the plump and desirable child which may be specially selected in the office as the fountain of lymph for others, may have had a syphilitic father or mother. That this is not an imaginary case, any vaccinator who will take

* "In hospital practice and in private practice I have noticed, as no doubt many others have, that vaccination in children is very often, or rather not unfrequently, followed by many different disturbances of the system—by cough, *skin diseases*, diarrhœa, head symptoms, &c. On questioning the mother one finds that the child had been in perfect health up to the time of vaccination, and that it is only since the pustule appeared on its arm that the child was sick."—Correspondent of *Medical Times and Gazette*, 19th May, 1860.

the trouble to pursue the subject, in a spirit of candid observation and inquiry, will frequently find; and, unless he belong to that section of the profession—which I regret to say is still large—that will not believe in syphilitic transmission by vaccination, he will hesitate before venturing upon so hazardous an experiment as selecting the little plump progeny, without careful examination of both it and its parents.

There is, to my mind, the wildest temerity in a person belonging to a learned profession, who is supposed to be conversant, as far as science has led us, with the laws of life, and to have learned enough to teach him caution in pronouncing a limit to vital operations, denying the possibility or probability of this or that process in physical transmission. In these days, when forces of nature formerly unknown or occult are being daily discovered and understood, and when we admit that the processes of vital change are directed by imponderable agencies, it is eminently unscientific to question the possibility of a syphilitic parent transmitting the taint to the child, and through the child to others. I am at a loss to know by what parity of reasoning the non-communication of syphilis can be maintained, in the face, not only of the vaccine transmission itself, but in defiance of the actual phenomena in syphilitic form that are so often to be met with in combination. Why should vaccinia be possible by transmission, and not syphilis, or any other virus or ferment?* It may be, and is doubtless

* Whitehead (*On Hereditary Diseases*, p. 174) relates an interesting case of secondary syphilis communicated by vaccination. The case of the mother who suckled the child proved to be one of a very distressing kind. The breasts, with the nipples and superficial absorbent vessels, became so inflamed as to necessitate the discontinuance of their use in nursing. The disturbance was most severe on the left side, extending to the axilla, in which situation an extensive abscess formed, which gave exit to an incredible quantity of offensive puru-

the fact, that the mere active force of the vaccine overcomes a feeble syphilitic taint, and may keep it in a latent condition, thus exhibiting a pure phenomenal vesicle without any foreign mixture. This is the case in thousands of instances; but this depends upon the balance of force between the syphilitic constitution, and the activity of the vaccine lymph.

Many circumstances must necessarily operate to determine the nature of the results that may follow vaccination; for we see that the same surgeon will vaccinate a considerable number with equal care from the same vesicle, yet have by no means similar phenomena. In some of his cases there may be no reaction whatever, the slight abrasion or scratch healing up at once, and no change on the arm occurring. In others he will have the vesicle well defined, with no very extensive efflorescence or redness, and not very much constitutional disturbance. In many other cases, however, he will be called upon to observe very serious alteration in the general health of the patient, considerable fever, and alarming tumefaction of the vaccinated arm, with great pain and sleeplessness. So far, indeed, are the phenomena sometimes from the discreet form of vaccinia, as to create considerable anxiety touching the course that the eruption will pursue. Amidst all this variety of phenomena, who can tell what are the causes which direct the vaccine virus in its influence on the constitution? Who can predict what will be the result of any individual puncture into which lymph may be introduced? Where, then, is the reasonableness of asserting that lymph passing through a constitution that has its tissues tainted by the venereal virus, does not and cannot carry

lent matter. As the abscess contracted, blotches of roseola came out in various parts of the body, and these continued for a considerable period, varying with the state of functional health prevalent at the time; but she was ever afterwards an invalid.

with it to its embouchure in the arm some of the diseased element? To argue against the probability of such contamination of the lymph, is unreasonable enough; but to deny or question its possibility, is in the highest degree unscientific.*

We have also to bear in mind that impure lymph may produce in a child a very fine and well-developed vesicle, having no feature beyond that expected as pure, and cha-

* "The committee appointed by the Royal Medical and Chirurgical Society upon the cases of vaccino-syphilis referred to in Mr. Hutchinson's papers, made their report on Tuesday evening. They state that they saw three of the cases in each series, and also the two vaccinifers. We are sorry to say that the committee confirm the inferences of Mr. Hutchinson. They have seen no reason to doubt the fact that syphilis was in each series *conveyed in vaccination*, but whether through the medium of the lymph, or of blood, or both, they are not prepared to state. We are far from wishing to throw undeserved obloquy upon the practice of arm-to-arm vaccination; but it cannot reasonably be expected that the public, who are always more open to unfavourable than to favourable reports, will ignore the facts now established. There is a danger, and *they will demand to be protected from it.* No one who knows what syphilis is, and how it impresses its stamp upon a whole lifetime, will say that such a demand is unreasonable. At the present moment, no one can tell how often a similar accident has occurred before; for these cases can scarcely be believed to be unique. And the question which now presents itself to us is, what steps the Government intends to take, to provide that the population shall not plead danger as a bar to the vaccination of their children. Much has been written about the non-success of heifer vaccination, and much which is of questionable authenticity; but, after all, it is due to the public that the alternative should be offered of vaccination from the child's arm or of vaccination from the calf. In London, Manchester, Liverpool, and other large towns, we certainly think that, at definite and short intervals, an animal vaccinifer should be provided by the State for the use of persons who object to arm-to-arm vaccination. A few calves thus provided at large centres of population would suffice for the exigencies of the case, since it has been shown that the lymph can be preserved for several days upon thoroughly charged points, and, if then used by the method of scarification, is nearly as efficient as humanised lymph."—*Medical Times and Gazette*, 1st July, 1871, p. 13.

racteristic of vaccinia; but this may occur because the constitution of the child or adult is not readily susceptible to the operation of syphilis. It is very well known that constitutions vary in susceptibility with reference to syphilis, some persons being able to venture, even knowingly, upon an impure coït without fearing or contracting disease; others are acutely sensitive to its influence, and will be tainted by contact in almost any form. An infant may therefore escape with perfect freedom from impure lymph, without any external phenomena; but, what is equally true, and perhaps paradoxical, it shall transmit the syphilitic taint from its own apparently pure vesicle to another child, who shall exhibit undoubted indications of syphilitic inoculation, and primary or secondary symptoms shall appear in the arm and other parts of the body.

By way of sustaining the position I have taken—one that I have held for many years—I shall give the following extracts from the *Lancet*, which fully bear me out. In the number of 24th November, 1866, the following occurs:—"Two medical practitioners having drawn the attention of the Academy of Medicine (Paris) to a reported outbreak of vaccinal syphilis in the department of Morbehan, MM. Depaul and Roger were despatched on the part of this body to investigate the matter on the spot. From their report it seems that a midwife, residing at Grandchamps, received on the 20th of May some vaccine lymph in glasses from the prefecture, and next day vaccinated with it two infants, by name Mahé and Noroy, both apparently in excellent health. A week afterwards she vaccinated from Noroy's arm a strong, healthy child, three months old. As it was intended to vaccinate several from this last, six punctures were made in each arm, all of which were followed by pustules. On the 3rd, 4th, and 5th of June, the midwife took this child to various communes, and practised numerous vaccinations from

its arms—more than eighty, as she averred. On the 12th of June further vaccinations were made from two children of the first series, and by the 9th of July the two practitioners who drew the attention of the Academy to the circumstance had *met with thirty infants, from amongst those of both series, who manifested well-marked signs of primary and secondary syphilis. They also believe that the lymph supplied by the prefecture was the origin of all the mischief.*"

Here it will be seen that the midwife had taken her lymph on her vaccinating tour from the arm of the *second* course; that neither the first two children who were vaccinated from the lymph of the prefecture, nor the very fine child chosen as the special fountain of lymph which followed them, gave the slightest phenomenal indications of syphilitic disturbance. But how remarkable that there should have been so large a number as thirty infected by the syphilitic taint from this very healthy child of the *second* course! The medical commission, after making due inquiries, found that the taint was in the lymph of the prefecture, not in the parents of the children vaccinated by it. The investigation was naturally exhaustive in its character, and the conclusion must have been forced upon the commission, both by the entire history of all the individuals concerned, and by the physical indications presented in the eruptions themselves. Nothing could be more conclusive than this report; and it sustains in every point the argument that I have advanced in defence of the position I have assumed. The official report handed in by MM. Roger and Depaul, the two commissioners, was couched in the following terms:—"1. Several of the children whom we have examined were undoubtedly suffering from secondary syphilis. 2. We see no way of explaining this contamination but *by vaccination.* 3. As to the origin of the virus, it is very probable that the poison is traceable to the lymph, preserved between two

pieces of glass, supplied by the authorities. As primary symptoms were also observed amongst the children, M. Ricord begged the commissioners to insert that fact in their report, which these gentlemen agreed to do."

As there is so much scepticism on this subject, I must bring to my support the assistance of other authorities having equal claims to our attention with those just named. M. Divergie related, at a late meeting of the Academy of Medicine at Paris, the following case:—"A boy, aged 15, was admitted into the St. Louis Hospital on the 11th of March last, under Mons. Divergie. The lad had seven months before been a patient at the Children's Hospital of St. Eugenie, for a slight pleurisy. About ten days after he was received into the latter hospital the boy was vaccinated from a child at the breast, with two punctures on the right arm. A certain number of other children were vaccinated on the same day, with lymph from the same child. The lancet was quite clean, and habitually used for this purpose. Three days after the operation a small brownish crust formed on each punctured spot, and the resident medical officer declared that the lymph had not taken. The crust, however, grew larger, the skin turned red, but the boy never complained, and his arm was not examined on leaving the hospital, although the redness had not only persisted, but taken a larger diameter, without any uneasiness being experienced. Five or six weeks afterwards the patient perceived an eruption on his arms and thighs, and a thickening of the skin around the red patch of the arm. Toward the third month another eruption occurred; the boy became hoarse, and complained of pains in his bones. When admitted at the St. Louis Hospital on the 11th of March the patient presented papules, and tubercles all over the body, with eliptic impetigo of the upper lip, three hard and rather recent tubercles on the prepuce, and enlarged

glands in the left groin. In the neighbourhood of the vaccine punctures a round patch was perceived, where the skin was hard, thick, uneven, and of a dark red; in the right arm-pit there were large and very hard glands, the left axilla being quite sound. Arms quite healthy. Anti-syphilitic treatment was had recourse to, and in six weeks the impetigo was gone, the tubercles being reduced to a dark stain; the skin around the vaccinated stain had become soft, very slightly discoloured, and had resumed the normal thickness. Every symptom points to transmission of syphilis by vaccination."

In this case we see the illustration of the doctrine laid down above in reference to the comparative force of the two abnormal elements, syphilis and vaccine. In this boy's case it is manifest that both must have been in existence in the lymph that was used. The active principle of the syphilis was clearly more intense in molecular activity, and was consequently responded to by the boy's constitution, while the weaker virus remained inoperative. The reverse of this might have been the case, as it undoubtedly is in the majority of cases. Then, again, there is the degree of receptivity of constitution to be taken into the account, as was before stated; thus it was quite possible for the infant to be unscathed, as in the instances of the children first vaccinated by the above-mentioned midwife at Morbehan, in France, and yet for those subsequently vaccinated to yield to the influence of the lurking virus, and to exhibit both primary and secondary syphilis.

It is to be lamented, for the sake of science and for sanatory reasons, that there is still such obdurate scepticism on this vital and momentous question. Too much importance cannot possibly be attached to it, for it affects the health of the whole community. In this colony especially, where—considering the number of our population

—syphilis prevails in a palpable form to a greater extent than anywhere else in the British dominions, there ought to be the greatest vigilance and the most ample precautions taken; yet there is, I am sorry to confess, the most stoical indifference to the question of vaccinal syphilis.

"Several cases have come before me during the last few years in which symptoms to all appearance syphilitic could only be explained by hereditary transmission. In some of these there was a distinct history of syphilis on the father's side.

"Dr. Viennois, in his thesis presented to the Faculty of Medicine in Paris in the year 1860, and also in the *Archives of Medicine* for the same year, has collected together and given a detailed account of some cases in which an infecting syphilitic sore, or, more properly speaking, the specific adhesive inflammation, followed vaccination. Dr. Viennois has carefully excluded those cases in which a fresh set of symptoms followed vaccination in patients who had previously had hereditary or acquired syphilis, and has confined himself to cases in which the primary affections could be clearly verified, and their effects upon the constitutions of the patients satisfactorily traced. Dr. Viennois' investigations led him to the belief that, if the lymph from a vaccine vesicle be alone inoculated, the cow-pox alone will be produced; but that if, in addition to this, the blood of a person affected with constitutional syphilis be inoculated at the same time, then syphilis may also be communicated. The cow-pox would then appear first, as having a shorter period of incubation; and after a time the syphilitic tubercle (or primary specific inflammation) would make its appearance upon the inoculated part, and would in due course be followed by secondary symptoms. The cases which Dr. Viennois has collected are related with so many circumstantial details, that, if correctly reported, they cannot fail of themselves to establish the fact that the poison of syphilis,

and that of the cow-pox, may be communicated, and sometimes have been communicated, at the same time" (Henry Lee).

As a writer in the *Lancet* very pertinently remarks, "the fact is, that we cannot at present set any precise limit to the action of the syphilitic virus;" hence it is folly in any legislature to authorise a course of procedure which permits its possible distribution, without the most rigid regulations to prevent it. In my experience I have gathered overwhelming evidence to render it perfectly conclusive to my mind that, as vaccination is now regulated in this colony, we are in danger of sowing syphilis broadcast, and producing frequently, but unnecessarily, the most serious consequences. The recent enthusiasm in reference to re-vaccination, which followed the invasion of small-pox into the colony, has been fruitful in illustrations of my arguments touching this question. Several adults from the country, and amongst them some well-known squatters, have visited me for advice touching unexpected and severe eruptions of various kinds that have immediately succeeded their re-vaccination. In all these cases I have been able to discern distinctly primary or secondary syphilis. In some there was the actual Hunterian chancre on the arm, instead of the poor vaccine vesicle. In one or two of the cases there could not be the least doubt of its being transmitted by means of re-vaccination, the parties themselves never having had any taint of the kind before, nor to their knowledge had they ever had impure coïtus. Children have been frequently brought to my surgery with primary and secondary syphilis, generally the latter, whose mothers affirmed that up to the time of their being vaccinated there was no eruption whatever on the children. In the case of some there has been the hard, indurated, and indolent tubercle, with a lardaceous secretion, that left no doubt whatever of the real mischief occasioned.

Dr. Buchanan, physician to the Dispensary for Skin Diseases, Royal Infirmary, Glasgow, in a paper read before the Glasgow Medical Society, 20th December, 1864, gave cases illustrating—1st, the extreme contagiousness of infantile syphilis; 2nd, the difficulty of making an accurate diagnosis when syphilis happens to be complicated with scabies; and 3rd, the difficulty of determining, in many cases, whether infantile syphilis has been communicated by vaccination or otherwise. A case especially apposite to our present discussion is the following.

CASE CIII.—*Infantile syphilis communicated by vaccination. Syphilitic cachexia. Death.*

"R. M., aged nine months, I first saw on the 13th of October, 1863. The nates and scrotum were then covered with erythema syphilitica; while erythematous patches, acuminated papules, and flattened papules, were circinate in form (as in mild cases of psoriasis circinata), especially on the flanks of the body and external aspects of the thighs. The coppery colour of the *whole eruption was eminently characteristic of a syphilide.* The lymphatic glands were everywhere engorged; and the child had suffered from coryza, with snuffling, since the commencement of the cutaneous symptoms. The eruption was unattended with scratches, or other signs of uneasiness that would indicate itching.

"It seems that the child was quite healthy till between three and four months of age, when it was vaccinated. The operation was performed by a neighbouring woman with a needle. A series of punctures were made in two places, in the first of which the inoculation succeeded, the sore afterwards healing naturally, and leaving a characteristic cicatrix. A fresh and larger supply of matter, taken with the same needle from the same child, was used for the second inocu-

lation, and here the vaccine pustule was long of healing. It did not heal for five months, and the sore was indurated. One month after vaccination spots appeared on the child's body, beginning at the anus; a chronic snuffling in the nose commenced, and a fissure broke out on the lips, where it remained for about a month. Shortly after this had healed the mother noticed a sore on her nipple, which developed into an obvious chancre. She had also other syphilitic symptoms. The child waned under syphilitic cachexia—such as I have described elsewhere—and died.

"The child from whom the vaccine lymph was procured was a strong, healthy infant. The father was healthy, and untainted apparently. The mother was a strong woman, was without any existing symptom of syphilis, but she had given birth to three dead children—a very suspicious circumstance, as she confessed that when a girl she had 'a dose of something.'"

Dr. Buchanan hesitates slightly in pronouncing on this case, but taken in conjunction with others there can be little doubt that the syphilis was transmitted, being called into activity from its latent state by inoculation into a susceptible subject.

"During the period of doubt and suspense which followed Dr. Viennois' publications, two most remarkable circumstances took place. One of these was an artificial inoculation performed at the Hotel Dieu; and the other the transmission of a disease, both by artificial inoculation and by natural means, to a large number of children, and to several adults at Rivalta in Piedmont. These circumstances have occurred at the exact time in the history of syphilitic inoculation best calculated to dissipate the doubts which still hung over so many minds, and the symptoms which they present will, I believe, if fairly interpreted, satisfy every

unprejudiced inquirer. The first of these remarkable facts occurred in a woman eighteen years of age, who was admitted into the Hotel Dieu, under M. Trousseau. This woman was vaccinated while in the hospital, in the beginning of October. The day after the vaccination the punctures were prominent, and surrounded by a slight inflammatory areola, with intense itching. Four or five days afterwards there were no longer any traces of the inoculation. This excited no surprise at the time, as the patient had previously been properly vaccinated. The patient left the hospital on 9th November. In the beginning of December, two ulcers, covered with thick scabs, were seen on the inoculated spots. These ulcerations were at first considered to be vaccine vesicles abnormally developed, with an unusually prolonged period of incubation. On 11th January, 1862, upwards of three months from the date of the vaccination, this patient was re-admitted into the Hotel Dieu. At this period the ulcerations on the arm were still unhealed; the corresponding arm-pit was the seat of multiple indolent bubo; and on the body, the arms, and the chin, was a syphilitic roseola, concerning the nature of which no one has hitherto expressed any doubt. The patient reported that this eruption had existed from the middle of December. It was followed by pains in the head, and indolent enlargement of the post-cervical glands.*

"M. Ricord now examines the patient at M. Trousseau's invitation, and reports that she is the subject of two indurated chancres on the left arm; that she has multiple enlargement of the glands in the axilla; and that she has specific roseola, typical of constitutional syphilis. This constitutional affection he moreover declares to have had its origin, its entrance into the patient's system, through the ulcerations on the left arm.

* "Holmes's *System of Surgery:* article—"Syphilis."

"A much more startling series of facts have comparatively recently been brought to light by a sad tragedy enacted at Rivalta. Here a child, named Chiabrera, was vaccinated; from him another child, name Mazone, was vaccinated, with forty-five other children. Chiabrera we shall call the first vaccinifer, and Mazone the second vaccinifer.

"A disease was conveyed from the first vaccinifer to thirty-nine children; from the second vaccinifer to seven children. Both vaccinifers were very ill, and one died three months after vaccination. The first vaccinifer communicated the disease to his mother, the second to his wet-nurse. Twenty nurses or mothers were known to have been similarly affected. In three cases the same disease was again communicated from the mothers to their husbands; and in three other cases the disease was communicated to other, previously healthy, children" (Henry Lee).

Dr. Parola has mentioned, in his work *On Doctrines connected with Vaccination*, a case reported by Tassani, of Milan, in which a boy—whose father had suffered from secondary sores on the scrotum—was vaccinated from a healthy child. From the vesicle of this boy *fifty-six* children were vaccinated, out of whom *thirty-five* were in a few months syphilitic, and had diseased their mothers. On the other hand, it should be noted that lymph from eight of these thirty-five syphilitic children was used to vaccinate a second series of thirty-four, and none of the latter showed any syphilitic symptoms. Another case (which was brought before courts of justice, and appeared in the *Medinische Zeitung* of Berlin) runs thus:—"In 1846 many re-vaccinations took place in the town of K——, where a surgeon re-vaccinated about ten families on account of an epidemic of small-pox, and the punctures, in three or four weeks, degenerated into syphilitic ulcers, followed soon after by secondary eruptions. The vaccinator, a veterinary surgeon, was sen-

tenced to two years' imprisonment, and a fine of fifty thalers. Experiments have been undertaken by Pillon, Boucher, Ceccaldi, and Lecoq, which prove the transmission of syphilis by vaccination."

In the *Australian Medical Journal* of May, 1869, the following appeared, which bears upon the question with considerable force :—"It was lately mentioned by a Castlemaine journal that 'several persons in the township were suffering from the effects of re-vaccination, although it was some time since the operation was undergone, and the pustules on the arms healed up. Eruptions had appeared on other parts of the body, and in one case the reappearance of pustules had been on the throat and palms of the hands, attended with considerable pain.'" On inquiry, I came to the conclusion, from the induration and special characteristics, that it was a case of transmitted syphilis. It is to be regretted that there was no official report on the matter.*

*Alleged Death through Vaccination.—On 19th July, Dr. Lankester held an important inquiry at the Brookfield Arms, Highgate New Town, relative to the death of William, infant son of Mr. Emery, ham and tongue dealer, of Great Portland-street, Marylebone, who, having been vaccinated in accordance with the law, was alleged to have died through the introduction of deteriorated or impure matter into the system in the operation. The inquiry resulted from one held a few days prior by Mr. Bedford, the coroner for Westminster, in which the same allegation was made, both children having been vaccinated at Dr. Allen's surgery, 11 Soho-square. The verdict of the jury in the latter case was one of natural causes, Dr. Clark stating that the death was due to erysipelas consequent on vaccination. Mr. Emery was present at that inquest, and, having lost his child from the same cause, pressed for an inquiry; and in conformity with his wishes, the body was exhumed. The coroner said the inquiry related not merely to a single death; it was really an inquiry into a system, namely, the Compulsory Vaccination Act. He remarked that during the last century forty-five millions of persons died from small-pox; but in the present century, through the introduction of vaccination, the number of deaths was exceedingly small, showing that vaccination was beneficial in saving life in the community. The evidence went to show that the

I am prepared to meet with adverse criticism on this portion of my work, and to encounter no very measured condemnation, from those who do not agree with me, for the propagation of so unpopular an opinion; but feeling as I do that the facts of daily experience sustain me, and compel me to acknowledge that syphilis is transmitted by vaccination, I unhesitatingly aver my adhesion to the theory, and shall not shrink from the consequences of my enunciation. I have the satisfaction of knowing that nearly all modern physiologists have now clearly demonstrated that tuberculous diseases, such as consumption, &c., can be communicated by vaccination, and that by a parity of reasoning syphilis also can be transmitted in the same manner; it therefore remains

deceased had been a fine healthy child, *and that death resulted from erysipelas caused by vaccination.* The jury returned a verdict accordingly. In remarking upon the vexed question of vaccination, a contemporary says:—"There are thousands of families in which the belief is entertained that vaccination injures a child's constitution, is ineffectual against an attack of small-pox, and introduces a disease where none existed before. *For each of these opinions there are to be found numerous corroborative facts.* The careless way in which vaccination is too often conducted, especially upon the children of the poor, must necessarily render it useless as a prophylactic; but, worse than all, *it does actually impart disease from an unhealthy child to a healthy one.* If all parochial medical officers, or 'cheap' doctors, took the trouble to use pure vaccine, and *to ascertain well the state of health of children before vaccinating from one to another*, there would be less actual basis for the increasing unpopularity of Jenner's system than now exists. But when all this is said, the fact remains that since Jenner's discovery small-pox has ceased to be the frightful scourge in England which our forefathers found it; and that in nine cases out of ten, or more, it does really act as a safeguard against the disease. This view of the question ought to be made familiar to the general public. *At the same time, the Government might do great good by taking some steps to ensure the proper discharge of the important duty undertaken by vaccination officers.* To pass a law compelling parents to submit their children to the operation is well enough so far as it goes, *but there ought to be some security that vaccination is not made a vehicle for transmitting disease.*"—*European Mail*, 13th August, 1869.

for those who hold the opposite doctrine to show by what law of special selection syphilis should not be capable of hereditary or direct transmission by means of secretions from contaminated bodies, and if by any secretions, why not by all.

In the *Australian Medical Gazette* I observe a brief notice of a paper read before the French Academy of Medicine, "ON THE PROPAGATION OF CONSUMPTION BY INOCULATION WITH THE EXPECTORATION OF CONSUMPTIVE PATIENTS."

"M. Villenieu has laid the results of some experiments on the inoculation of animals with the expectoration of tubercular patients before the Academy of Medicine.

"1st. The expectoration, diluted with water, was injected under the skin of four rabbits, and in three of them tubercular disease was excited.

"2nd. A piece of ligature silk, saturated with tuberculous expectoration, was passed through the flesh of five rabbits, and three became affected with tubercular disease.

"3rd. The expectoration, slowly dried, and then introduced under the skin, produced no effect; but when rapidly dried, disease was produced in three rabbits inoculated with it. The application of the expectoration, dried in the last manner, to the skin, caused death in one animal; and blown into the trachea through a small opening, two animals out of four became diseased.

"Feeding rabbits and fowls on tuberculous matter produced the disease in several."

Dr. Aitken gives the following as "vehicles of contagion:" —"1. The ulceration of the female nipple inoculating the mouth of the healthy infant, born of healthy parents. 2. The *blood* of those suffering from acute secondary syphilis inoculates. 3. A female, otherwise free of syphilis, may become contaminated during the gestation of a fœtus

begotten of a male who, at the time of the fruitful connection, was himself alone suffering from contamination of the system by syphilis in some form of active secondary phenomena."

If then it be true that the virus of syphilis is capable of being transmitted by the sputa and by the blood, as many have asserted after rigorous experiment, I see no reason why it should not be passed from one body to another in the lymph of a child. Believing, as I do, that syphilis is very freely transmitted by vaccination in this colony, I hold it to be my duty as a surgeon to enter my protest against the present system of public vaccination. It is reckless and dangerous, and ought by all means to be changed. Some may say that, admitting the theory of transmitting this taint, very few are infected; but it is idle, on such ground as that, to pooh-pooh the necessity for more caution. The statement that very few cases of syphilitic transmission take place is not in accordance with the facts of the case. The truth is nearer at hand in saying that few men are sufficiently expert to discern it when present in the vaccinated arm. Then, again, few men have extensive opportunities of observation, having few to vaccinate, and not being able at all times to follow up the cases in hand. It is only where large practice furnishes abundant examples, that reliable data can be obtained, and only then when the surgeon possesses patience, and the power of observing accurately. In the public vaccination office there is generally too much haste and indiscriminate selection; hence any records from such sources are intrinsically valueless. There are, however, resources within the power of the profession and the legislature, which would obviate much of the present mischief, and save the public health from the risks which are now run wherever vaccination is performed. A commission of medical gentlemen holding the doctrine of syphilitic transmission by

vaccination, would readily furnish directions for more scientific regulations by the legislature respecting vaccination.

As an illustration of the dangers of public vaccination from "child's lymph," I cannot avoid transcribing from the *Medical Times and Gazette* the following report of Dr. Haydon, of Bovey Tracey, Cornwall. He says:—"I was called in the summer of 1843—as the medical officer having charge of the sick poor of the parish and borough of Bodmin, Cornwall—to attend two young children of different families, and living about a quarter of a mile distant from each other. The children were each of them from nine to ten months old. The history of their illness being precisely similar, one description will apply to both. On the first introduction of the compulsory vaccination system, the guardians of the Bodmin Union entered into a contract with one medical man to perform the vaccinations for the whole Union.

"This gentleman, in the discharge of the duty of public vaccinator, attended at the appointed room in Bodmin, and on that particular day vaccinated these two children, taking lymph from the arm of a child he had vaccinated the preceding week. He appeared (from the most careful personal investigation which I made of this matter at the time) to have vaccinated no other than those two children on the day in question, and to have taken lymph from no other child but the particular one alluded to. Between the second and third week after the vaccination had been performed, I first saw the children. They were literally covered with large phlyzacious pustules; the irritation was most intense, and between rubbing and scratching, the head and nates were raw and ulcerated. No treatment had any avail, and both these poor children died a few days after I first saw them. Being at once impressed that the disease of these children was syphilitic, I made the most careful

investigation I could into the whole matter. In both families there were other older children perfectly healthy. The parents in both cases were labourers, of most healthy appearance and of good character; were then and ever had been free from syphilitic taint. The respective mothers of both children carried their infants themselves to be vaccinated; they saw the operation performed, and they saw the child from whom the lymph was taken; they told me the name of the child, and where it lived. As medical officer of the Borough of Bodmin, this child and its mother were both known to me. The mother had been, and in fact then was, on the town, and I had attended her for syphilis. At that very time she was diseased. I examined her child; it had, as far as I could see, no primary syphilitic sores, but it had numerous syphilitic eruptions about its body, pustules about its nates and trunk, and copper-coloured leprous spots. The child was between two and three years old, and under specific treatment it recovered. The public vaccinator lived at a distance from Bodmin, and could not have known the character of the parties from whom he took the lymph."

I may remark here that it was a source of astonishment to me, during my connection with the Melbourne Hospital, to witness the number of persons amongst the out-patients of that institution who had been tainted by vaccination, and exhibited distinct primary and secondary syphilis. Although I have furnished considerable evidence of vaccinal syphilis existing, I shall supply the following extracts from an able work on syphilis.* They corroborate conclusively the opinion which I venture to hold in reference to the communication of syphilis by vaccination. The writer says:—"Henry Lee, in his work on the inoculation of syphilis,

* Berkeley Hill.

and in the *Lancet* for 1863, has related some observations collected by Viennois in support of the doctrine. Since then Lancereaux has collected nineteen observations of syphilis propagated by vaccination. They include 351 individuals vaccinated from syphilitic children; 258 of them were inoculated with syphilis—the rest escaped." The most remarkable outbreak of syphilis by vaccination, of late years, is that which occurred at Rivalta, near Aqui, in Piedmont, in 1861. Dr. Pacchiotti, of Turin, who was employed by the Italian Government to report on the attack, has published an account of it. The facts are shortly these:—"In May, 1861, an apparently healthy child named Chialrera was vaccinated at Rivalta, with lymph sent from Aqui for the purpose. Ten days after this vaccination (7th June), 46 healthy children were vaccinated at one sitting from this child. Again, on the 12th of June, 17 other healthy children were vaccinated from one of the 46. *Thirty-nine* (39) *of the* 46 *received syphilis* with the vaccine disease, and seven of the second series of 17, *making a total of* 46 *out of* 63 *children in a mountain village simultaneously inoculated with syphilis.* Some months elapsed before the vaccination was suspected to be the cause of the children's bad health. By the 7th of October, when attention was drawn to this spreading disease, six of the 46 syphilised children had died, without receiving any treatment; 14 were recovering; and three were in a precarious condition. Twenty-three were dispersed through the country, and their condition was unknown until further researches traced them out. In addition to the children, 20 women suckling them were inoculated with syphilis from the children. Through the mothers the disease had reached some of the husbands, and even the elder children of the different families."

"Another authentic instance is that where a German doctor (Hübner) was tried and punished for having in 1852

inoculated 13 children with vaccine lymph from a syphilitic child. Of these, five escaped entirely; in the rest the points of inoculation became slow-spreading ulcers, and three months afterwards general eruptions appeared over the body."*

Every unprejudiced mind, after perusing the above undoubted citations, will at once see the propriety and absolute necessity of great care and discretion in conducting vaccination. These cases are manifestly crucial, and leave nothing to be said in opposition to the enunciation that syphilis is communicated by vaccination. I advise every mother who presents her child for vaccination to make inquiries in reference to the purity of the lymph used for her child, and to take every precaution in her power, under the present bungling system, to secure her infant against contamination. The same admonition is given with equal emphasis to all persons who wish to be re-vaccinated, that they should urge their medical attendant, or whoever may be employed to perform the operation, to see that the lymph be judiciously and carefully selected. In the meantime, this is all that can be done by way of security. As affairs now are, certainty of purity in the lymph is scarcely possible, but every precaution should be taken to neutralise the blundering of the present system.

During the writing of this work I was glad to find, amongst the medical annotations of the *Australian Medical Gazette* for the month of May, that the question of animal vaccination had been discussed, and the mode adopted on the continent of Europe described. Amongst the advantages set forth as following this plan are—"That in the event of any sudden demand arising for vaccine lymph, animal vaccination ensures a more plentiful supply; that the lymph

* *Lancet.*

obtained by animal vaccination is more energetic, as evidenced by its making a greater impression locally as well as on the system at large; and that vaccination from the heifer ensures freedom from contamination with any extraneous virus, *such as syphilis, struma, and consumption.*" The procedure of Mons. Chambon is given as follows:—"Arrangements are made by which a succession of heifers or calves about the age of five months is provided for. They are carefully stabled, and fed upon the diet to which they have been accustomed. The animal to be vaccinated is placed on its left side, and fastened down upon a table of convenient construction, and the operator proceeds to shave with a dry razor the right side of the abdomen, commencing from the udder, and over a space of about ten inches long by six or eight broad. The calf which is the vaccinifer is laid also upon its left side, and fastened down, and the fluid is obtained from a pock by forcible compression of its base by a pair of spring forceps, and the result is the rupture of the pock, and the abundant flow from it of a quantity of thickish, sulphur-coloured fluid, which is taken upon the lancet, or into capillary tubes for the purpose of preservation. The animal on the table is vaccinated upon the shaven surface by puncture in sixty or eighty places, and means are adopted to prevent subsequent injury by biting or licking. Pocks, which finally attain the size of large human vaccine pocks, speedly begin to rise, and are used for the vaccination of children from the fourth to the sixth day. Subsequently to this the vaccine they contain is found to be less active, but still sufficiently so for the vaccination of another calf, for which the pocks left unopened are therefore used on the seventh or eighth day. The grounds upon which the practice of animal vaccination has been advocated are mainly three—viz., the quantity of the virus which may, so to speak, be manufactured; its energetic quality, and its purity."

The experiments and observations of Mons. Chambon are such as ought to be taken into consideration, as they open up the question of reform in our mode of conducting vaccination. His plan is in a great measure in unison with one I have long thought desirable, and which I intend to suggest in the proper quarter. The talented editor of the *Australian Medical Gazette*, from which I have taken this extract, does not fully accord, I think, with the principle involved, nor the practice recommended; but I hope that further consideration will lead him to modify his opinions in the direction that M. Chambon has pointed out.

So fully has the necessity for avoiding the possibility of communicating syphilis by means of vaccine lymph impressed itself upon the profession and the authorities on the continent of Europe, that in Belgium, Italy, and France "animal vaccination" has been established by law. A reference to this was made in the *Lancet* of the 26th October, 1867, where it describes the municipal council of Naples as having signed a contract with Dr. Negri, that he should "furnish sufficient lymph, transmitted from one heifer to another, to supply the wants of public vaccination in Naples; *no other lymph is to be used.*" The same system has received the sanction of the Belgian Government, and an animal vaccine establishment founded. It would be well for Victoria if the same rational and improved method were instituted here by law, and all "child's lymph" vaccination prohibited.

VARIOUS MODES OF SYPHILITIC COMMUNICATION.—Syphilis is a disease of so subtle a character, and so free from anything like defined periods of incubation and regular stages in its progress and order of development, that it is almost impossible to collect data of sufficient reliability to form exact opinions thereon. This is the chief reason why there are so many opposite and varying theories in reference to its

communicability. The question has, nevertheless, received as ample discussion as any that has not uniform data on which to rest. It has long occupied the attention of the following syphilographers:—Ricord, Hunter, Acton, Lancereaux, Virchow, Trousseau, Hill, Parker, Jackson, Hutchinson, Cullerier, and a host of others; but, notwithstanding this galaxy of talent, the communicability of syphilis is still perplexing. Throughout my experience, which for years has been extensive in the treatment of syphilitic diseases, and my records of cases ample, I have not met with anything to lead me to modify an opinion which I early formed in reference to the many modes of syphilitic communication. I have not been unmindful of the difficulties in the way of exact observation; of the conflicting reports which patients themselves may give; of the eruptions which often present themselves, having a strong resemblance to syphilis; and of the obstacles which patients frequently place in the way of our obtaining correct histories of the case—still I believe that there is no disease more readily communicated than syphilis.

Another difficulty in the way of acquiescence by some in this communication theory, as held by myself and others, is, that where there is no breach of continuity of any mucous membrane a taint may still be given, and be a very long period in exhibiting external phenomena as indices of its presence. This delay in phenomenal expression I have several times witnessed, and have been surprised that some symptom did not present itself; when, ere long, my wonder has been disposed of by true syphilis appearing either on the skin or on the mucous membranes. This has been especially the case in some instances where the husband has had secondary eruptions, and the wife has for a time appeared to have escaped altogether from contamination. The result, however, has been that circumstances have arisen, in the

form of exanthemata for which she could not account, requiring her to consult me.

There is a view of the question, referred to previously, and which I shall briefly glance at in this place. It relates to the contamination of the mother at the time of impregnation. It has been said by some, amongst whom Mr. Acton and others are prominent, that the father taints the ovum, but not the mother. To me this conclusion appears a hasty one, and cannot be said to have sufficient evidence on its side to warrant the confidence with which it has been advanced. It is true that the mother in a great many cases presents no indication whatever of having been contaminated; but is that simple and unreliable fact to be taken as a ground of any value on which to build an opinion of so much importance? I think not. The chief difficulty lies in the fact that a woman may for a long time retain the virus in a latent form—much longer indeed than nine months. Then, again, we have another which is well known to all physiologists—viz., that a woman during gestation possesses a kind of charmed existence, or immunity from diseased action in her organism. May it not then be a fair presumption that in the event of her being herself impressed by the virus, her vital forces centreing on the fœtal development would communicate the virus to the fœtus, rather than give it phenomenal expression on the periphery of her own body? We know how readily her psychological nature stamps upon her offspring in its vestibule of existence every phase, emotion, and peculiarity of her own being. It is scarcely possible, however, that after the act of impure impregnation she should not be tainted.

This theory of communication is in perfect harmony with the physiology and psychology of the gestating female, and will, if fairly considered, present sufficient reason for modera-

tion in the expression of opinions limiting the modes and extent of syphilitic contamination. I have thus been led to retain the opinion that it is quite possible to taint both the mother and the ovum at the same time, so that the semen *per se* will transmit syphilis. It will also, doubtless, communicate the periodic phenomena of the father, so that if he have primary symptoms or secondary, they shall be repeated in the mother at some time after gestation has been completed.

The cases illustrative of these conclusions given by careful observers in Europe, as well as my own, which have been collated with equal care, render it impossible to avoid the conviction that the infant can be tainted with constitutional syphilis, and that vast numbers die from it in the first year of existence. There is on this point almost perfect unanimity. Many have fallen victims to this baneful disease, whose death has been attributed to a scrofulous diathesis, but it is not probable that this blunder will be so frequent for the future, the nature and pathology of syphilis being so much better understood. Some writers maintain that scrofula is of syphilitic origin, and that it may go on descending in families *ad infinitum*. This is in parallelism with the statement generally admitted, that syphilis imperfectly or unscientifically treated will go on for an indefinite period to reproduce itself in family after family. I shall not enter here into the discussion in reference to scrofula being a form of syphilis,* but I am in a position to

* "Speaking of certain forms of syphilis most remote in time and character from the primary disease, M. Vidal observes that though they can be neither inoculated, nor transmitted hereditarily with their peculiar physiognomy, 'yet, by a kind of degeneration or modification of syphilis, they may become one of the most fruitful sources of scrofula' (p. 282). 'I feel convinced,' says Mr. Wilson, 'that a considerable proportion of those diseases which pass under the name of scrofula are the produce of the syphilitic poison' (p. 158);

state, from my own observations, that there is no known limit to the march of syphilis, when once it has acquired the constitutional condition.

It has then been presumed that the male may infect the ovum and the child without injuring the mother; also that the fœtus thus contaminated may taint the mother. It has been seen also that the mother may be infected by the seminal fluid as well as the ovum; and that sometimes both wife and child of a syphilitic man may apparently escape infection, and enjoy an immunity from syphilitic disturbance for years, and yet that without any well-defined reason, at any time, one or both shall furnish distinct evidence of infection. Thus it is seen that this protean disease, with all its terrors and frequently appalling phenomena, has a character of its own that is often more terrible than the plague, inasmuch as it is a lurking enemy that cannot always be driven out, but tenaciously retains its hold of the constitution, and

and he puts the question, printed in capital letters—'Is Scrofula Syphilis?' (p. 160). Dr. Whitehead states that writers of past ages commonly believed 'that the venereal disease, imperfectly treated, was liable to merge in scrofula,' and is of opinion that the transformation does not happen in the individual who has the primary disease, but in the progeny thence ensuing (p. 276). In the best systematic treatise on the practice of medicine published in America—that by Dr. Wood—syphilis is assigned as a cause of scrofula. Drs. Bell and Stokes, also American physicians, assert that syphilis in the parents 'often gives rise to scrofulous inheritance in their children,' and observe that 'the physical degeneration and extinction of so many families in Spain caused by scrofula, are alleged to have for anterior cause syphilis.' Dr. Copland has observed, he says, 'that children born of parents having the syphilitic taint are more frequently affected with internal and external scrofula than are children whose parents are free of that taint, and that when they are seemingly exempt they often become consumptive at more advanced ages.' 'The frequency of cases of so-called consumption,' says Sir William Jenner, and 'of cases of so-called scrofulous diseases in the child that are also due to inherited syphilis, becomes daily more apparent.'"—*Westminster Review.*

without warning commences from time to time its destructive disfiguration of the surface of the body, and the consumption of the internal organs. Though the parent may be in seeming health, and unconscious of its proximity, it still is concealed in the germ of impregnation, and takes its seat at the initial step of the future being, occupying each atom of the growing fœtus till it culminates in the hour of parturition, and then accompanies the child into the theatre of life, often to drag it during its early months into the grave.

Much controversy has existed as to the capability of the several secretions of the body to communicate syphilis, and there are not wanting abundant illustrations of the theory that all the fluids do contain the poison, and are vehicles of it to other bodies. The blood, the milk, the saliva, and the semen, have all been the subject of test and experiment; and although the results *sometimes* have been of a negative character, still there is an overwhelming mass of facts to sustain the theory. As I before remarked, the question of transmission is environed with great difficulties, and furnishes material for doubt and hesitation; but this state of things only renders the observations more exact, and the analysis of events more careful. The subtlety of the question has captivated the attention of many of the ablest and most distinguished physiologists of Europe, and has led them to apply with singular industry their practised acumen and skilled methods of research towards unravelling the tangled mass of evidence. The light which modern physiology and pathology throw upon such questions, has been used in its full force to direct research in reference to this great question of transmission, involving as it does many important points of medical jurisprudence. The names of the men who have entered this field of research are sufficient, when mentioned, to show its vast importance, and the

necessity that exists for a decided opinion to be formed. The following are a few of the foremost:—Waller, of Prague; Professor Pellizari, of Florence (who inoculated Dr. Bargioni in 1860 with the blood of a syphilitic woman), Ricord, Gibert, Lancereaux, Landwürm, Divergie, Fournier, Clerc, Bell, Wilson, Acton, Berkeley Hill, Wallace, Hunter, Diday, Lee, Hutchinson, Wilks, &c.

The most remarkable instance on record, by which the blood was proved to be a vehicle of transmission, is the one in which Dr. Bargioni was publicly inoculated with the blood of a woman suffering from syphilitic eruptions. It is expressly affirmed that by this act "he contracted syphilis, and underwent the several stages of the disease: first, incubation of twenty-five days; then a papule, which developed to an ulcer by the forty-fourth day. The lymphatic glands simultaneously enlarged, and a macular eruption appeared on the sixty-fifth day on the trunk." Several writers quote this case, and some of them at full length. Many other experimenters have also tried inoculation by the blood, and in some instances with complete success. It was not to be expected that all subjects could be successfully inoculated, for the proportion of those who would react upon the virus would not probably exceed those in small-pox inoculation, or in vaccination, when we know that many out of a given number vaccinated from the same lymph do not take, as it is said in common parlance. Besides this, there are the receptivity and latency in reference to syphilis, which are not analogous when drawing the parallel with vaccination, inasmuch as the phenomenal period may be very far from the date of syphilitic inoculation.

Another point of importance is, whether the milk of the mother or nurse contains the virus in sufficient force to communicate the disease. This is certainly the most important of the secretions, being the entire sustenance of the young

being. Any deterioration of this fluid is followed by issues of vital consequence to the health and life of the infant. Some writers are found who give no credence to the reports of cases that are recorded of syphilis having been transmitted by the milk of the diseased nurse to the child; but there are others who as strenuously affirm that they have incontrovertible evidence of its transmission by such means. My own observation leads me to conclude that the milk of the nurse, if she be syphilitic, does infect the infant she suckles. Several instances have occurred in France where the milk has been considered to be the direct vehicle of infection, and on referring to these cases I see no reason to dispute their accuracy or validity. The instances of such transmission are however by no means so numerous as might be expected, hence their rarity leads to doubts as to the possibility of lacteal infection. I hold the opinion that the milk of a syphilitic nurse does often communicate syphilis.*

* This mode of infection was early recognised. The following curious history shows very clearly the evil results which follow from the employment of an unhealthy nurse:—"An honest citizen saith he granted his most chaste wife, that she should nurse the childe which she was lately delivered of, if she would keepe a nurse to be partaker of the travell and paines: the nurse that she tooke by chance was infected with *Lues Venerea*, therefore she did presently infect the foster childe, and he the mother, and she the husband, and he two children which he had daily at his table and bed, not knowing of that poison which he did nourish in his own body and intrals. But when the mother considered and perceived that her childe did not prosper or profit by the nourishment, but continually cried and waxed wayward, desired me to tell her the cause of that disease, neither was it any hard matter to doe, for his body was full of the small-pocks, whelkes, and venereous pustules: and the brests of the nurses and mother being looked on, were eroded with virulent ulcers; and the body of the father and his two sonnes, the one about three yeares, and the other foure yeares of age, were infected with the like pustules and swellings that the childe had: therefore I shewed them that they were all infected with *Lues Venerea*, whose beginnings, and as it were provocations, were spred abroad by the nurse that was hired, by her

CASE CIII.—*Syphilis communicated by the child to its nurse.*

"A female infant, aged two months, the issue of syphilitic parents, was intrusted to a hired nurse. Pustules made their appearance on the labia and anus. The nurse was healthy, and had at that time no eruption on the nipples, parts of generation, or body. At the end of eight days the symptoms in the children were well defined, and ulcers were apparent on the breasts of the nurse. The child was then taken away, and a gratuity was given to the nurse to enable her to get herself cured (Cullerier, *Journal de Médecine*)."

CASE CIV.—*Syphilis from a newly-born infant to its nurse* (*Gazette Médicale*, 1851).

"In March, 1844, a newly-born child, the issue of a mother affected with constitutional syphilis, weak, puny, having ulcers in the mouth and back of the throat, copper-coloured spots on the skin, was brought to M. Petrini, of Turin. It became affected with marasmus, and died in three months.

"A hired nurse had the charge of suckling it, but observing it grow weaker, she requested two of her friends, sisters, both nurses, to give her nursling the breast.

"These had shortly both of them ulcers on the nipples; at a later period, pains in the bones; next, ulcers on the genital

maligne infection. I cured them all, and by the helpe of God, brought them to health, except the sucking childe, which died in the cure; and the nurse being called before the magistrates, was punished in prison, and whipped closely, and had been publikely whipped through all the streets of the citie, if it had not been for the honors of that unfortunate family."—*A Profitable and Necessarie Book of Observations for all those that are burned with the Flame of Gunpowder, &c.*, by William Clowes, p. 152. London, 1637.

organs. They infected their husbands. Their two children had in their turn ulcers of the mouth, or the isthmus faucium, and ultimately sank under these affections.

"Simple local treatment restored the husbands to health; they had no sequelæ of a venereal nature.

"As to the two mothers who were affected, one recovered her health completely, and the other was cured at the end of several months, after numerous complications, and with the loss of an eye from syphilitic iritis."

Various ancient authors have alluded to this mode of contamination, and Astruc (*De Morbis Veneris*, lib. ii., cap. i.) says there can be no doubt as to the frequent occurrence of transmission by means of lactation.

Dr. Barry (*Medical Essays and Observations*, vol. iii., No. 21) has noticed the rapid and destructive course which the disease thus communicated appears disposed to run, and Vercellon (*De Morbis Pudendarum*, cap. iv., p. 205) gives an account of a whole village having been more or less infected from several charitable women, moved with compassion, having given their breasts to two foundling infants infected with venereal disease: and a similar and very remarkable instance is narrated by Portal (*On the Nature and Treatment of some Hereditary Diseases, Medical Journal*, vol. xxi., p. 251) as having occurred at Montmorency. An infant infected with syphilis was taken from Paris, to be nursed by a woman of that place. The disease was communicated from the child to its foster-parent, from the latter to her husband, who infected another woman, and in a short time the whole town became more or less infected. Cases related by Mr. Hey (*Medico-Chirurgical Transactions*, vol. vii., 1816), besides illustrating the possibility of syphilitic inoculation by mammillary absorption, tend to demonstrate the elective determination observed in the appearance of

some morbid principles; thus the poison of syphilis exhibits a constant tendency towards the genital organs, although introduced into the system by another channel.

Dr. Colles (*On the Venereal Disease*, p. 272) has recorded an instance in which the disease was communicated by lactation. A woman who had her own infant at the breast, and having an abundance of milk, was induced to suckle another infant, and continued to do so until it died at the end of three weeks. The manner of its death, and the state of its body, as related by the woman, leave not a doubt that this infant was affected with syphilis.

"Some days since I saw a child of two and a half months old; it had been nursed by its mother, and was the subject of numerous ulcers, not of great depth, red at the base, and of variable size, around the penis and anus; these ulcers were like those produced by excoriation of the skin through dirt. The child had no marks on its body or inside the mouth, it was also very puny, and its mother determined to place it under the care of a country nurse.

"The nurse was twenty-five years old, the mother of four children, the youngest being a year old; she had never been the subject of any cutaneous affection; she had lived quietly in the country with her husband, a respectable man, strictly moral, and in whom she placed the most implicit confidence.

"Fifteen days after she had received this nursling, after being bitten on the left breast by her own child, the nipple of that breast became sore and ulcerated. At a later period pimples appeared on the body and the external parts of generation. She continued to nurse her child; it had also pimples on the nates and around the anus.

"Frightened by these affections appearing after the arrival of the diseased nursling which had been entrusted to her, fearing that she was the cause, and disheartened that it did

not thrive like her own children, she returned it to its parents at the end of two months.

"She then paid attention to the restoration of her own health, for she had several mucous patches at the back of the throat, syphilitic papulæ over the whole body, mucous patches on the external organs of generation, and in addition to this an enormous ulcer which had destroyed the whole of the skin of the left nipple. I examined the husband; no disease was visible on his body or on his organs of generation, no vestiges of an old cicatrix, and he assured me that he had never contracted syphilis, and had always been faithful to his wife.

"Whatever the truth may be, I prescribed an anti-syphilitic treatment to be followed for two months. Sedillot's pills, two daily, were the principal remedies. The patient was cured.

"In this case the nurse was infected, of that there is no doubt; but the point to be decided is the origin of the disease. The husband cannot be held responsible; he was fortunate in encountering the danger without catching the disease. The wife, it is true, might indeed have suffered from syphilis from an indiscretion of which she might have been guilty, but from her answers I do not think that at all probable. That she denied the charge proves nothing, I know, but as she did not demand money in compensation for the injuries she had received, and as she evinced no fear of her husband, whom she appeared to rule, the circumstances of the case being such as would have disposed her to conceal the cause of her malady, it is reasonable to place some faith in her answers; more, I questioned her when alone, and she replied to me with such answers that there would have been no more shame in confessing the delinquency had she been capable of committing it. She appeared to disguise nothing. On the other hand, a sick child, and one justly suspected,

arrives; soon after, she and her child fall ill, present incontestable marks of secondary syphilis, and she dates her malady from contact with the strange infant. It is far more probable that this woman is right—at least I agree with her in this opinion; but between this probability, however great it may be, and an absolute certainty, there is still an immense hiatus that other cases alone can fill up" (Bouchut).

The saliva also has been said by some to be equally dangerous as a vehicle of contamination, and cases are recorded which certainly sustain the theory. The saliva of the infected infant has in numberless instances been discovered to be injurious to the nurse, from actual observations made on women who have been tainted by the children they were nursing. "The Tribunal of the Seine has recently had before it an interesting case, in the shape of an action brought by a nurse against the mother of a child she had been engaged to suckle. It was proved that on her assuming this duty she was quite well, and her moral character was unsuspected. The infant, four months old, had an eruption on the face, which, however, the family doctor pronounced to be of an innocent nature. In about a fortnight she began to perceive an eruption about the nipples, and although the same medical man pronounced this harmless, it continued to prove aggravated, so that other practitioners pronounced it syphilitic. She gave up the infant, which afterwards died of undoubted syphilis. The infant's mother was free from an eruption, and the father had died soon after its birth. The nurse brought the action for the damage her health had sustained, and the expense she had been put to for its reparation. The tribunal awarded her 8000 francs damages, and all the expenses."*

* Another of the natural secretions, that of the breast, seems to be a frequent source of contagion. The following fact is recorded by Dr.

"A little girl who had syphilitic tubercles in the mouth, contracted from a nursling which her mother had taken, was placed in one of the weaning houses in the environs of Paris. In this establishment there was but one tin cup for six little girls. Four of these children, who were previously sound, became affected with tubercles like to those from which the new-comer suffered.

"A woman, who was accustomed to draw or suck the breasts of lying-in women, had in her mouth a venereal ulcer, which she concealed from fear of losing her employment. She affected several women 'of the better sort to a miserable degree;' in fact they not only suffered from constitutional syphilis, but communicated the poison to their husbands also.

"A commercial traveller contracted a sore on his lip. When starting on a journey, the infection not having yet produced any indication of its presence, he kissed the mouth of his niece, a child twelve years old, who in a few days

Whitehead:—"F. M., when 28½ years old, bore her fourth child, which was full grown and appeared perfectly healthy. The three previous pregnancies were equally successful; the offspring survived. During her fourth confinement her husband contracted syphilitic disease. It appeared to be completely cured in three weeks, and not until *six months* afterwards had he any constitutional sequelæ. But in the *third month* after the wife's delivery, she, who was 'a firm, plump, stout person, of light, ruddy complexion, and of healthy family,' found herself afflicted with disease of the reproductive organs. She had medical aid, and got apparently well. About two months later unequivocal symptoms of constitutional syphilis broke out in various parts of her body. By several months' treatment she got rid of all these symptoms except one. The infant, plump and healthy at birth, began at ten or twelve days old to be feverish and fretful; at the age of four months its excoriated mouth and throat, husky voice, and broad eruptive spots on the skin, which was soon afterwards thickly sprinkled with dark-coloured scaly patches, showed its system to be suffused with syphilitic poison. 'It died cachectic, at the age of sixteen months.' This child was clearly poisoned by its mother's milk."

became affected with symptoms like those which developed themselves in him. The cousin and sister of an infant affected with congenital syphilis shared in their attention on the invalid, which had perforating ulcers in its lips during a few days previous to its death, and a sore mouth for a considerable time before. It died when 36 weeks old. When it was 25 weeks old its sister and cousin, supposed to be exhausted from watching, began to be languid, feverish, restless, and to suffer from pain of the head and limbs. Soon afterwards they had soreness of the mouth and eruption about the lips, at the angle of which syphilitic tubercles appeared. The mother suspected the cause, and cautioned the little loving nurses not to kiss the baby again; but too late, the mischief was done; the usual symptoms of constitutional syphilis afflicted the cousin, and in 1850, after ten years of suffering from the time of her contamination, she died. The sister dragged on a miserable existence until 1849, when, contrary to the judgment of her mother, and notwithstanding an eruption on her face, she married. Her first child was born a few days before her cousin's death" *(Gazette Médicale).*

A writer in the *British and Foreign Medico-Chirurgical Review,* 1852, vol. ix., p. 327, narrates the following case:— "A gentleman had a chancre six months before marriage, for which he took mercury and was cured, and his marriage was permitted by a surgeon of high reputation. The wife bore two children, both of whom pined away and died. She had recently been confined of a third child; but as it was supposed that her milk was not good, a healthy young woman had been engaged as a wet nurse. In a short time her left nipple became very sore, and deeply ulcerated, and resisted various efforts to cure it, so that at last she was obliged to abandon her charge. Another nurse was sent for in her place, who became affected in a similar way; and it was at

this time that we first saw the case. On examining the child, who was beginning to emaciate, we found marks of syphilitic lepra about the nates and legs, which had not been suspected; and on inquiry it was ascertained that the former children had had cutaneous eruptions. On cross-questioning the husband, we found that three months after marriage he had had sore throat and a dark eruption, principally at the edge of the hair at the back part of the head, which had never entirely left him. The palm of the right hand had, at the time we saw him, a mottled aspect, and the skin was desquamating; and some small, circular, copper-coloured spots were visible on the thighs. The wife's health had been ailing, but she had not manifested any notable symptom of syphilis. The sores on the nipple of the nurse we saw had an angry look, with indurated margins. The surface of the mammæ for a considerable distance around them was inflamed, and an abscess eventually formed in the gland itself. The whole of this family—husband, wife, child, and nurse—were treated for syphilis."

Acton (*Practical Treatise on Diseases of the Urinary and Generative Organs, &c.*, p. 632, 1851) records the following case as an instance in which the mother was probably contaminated through the placental circulation, but it is rather to be regarded as an instance of infection from the mouth of the child through the nipple, as the mother had remained healthy until some time after the birth of the child.

"July, 1850.—A gentleman, 28 years of age, came to me to-day, complaining of a sore tongue. On the left side of the organ a white spot as large as a threepenny piece, looking like a cicatrised ulcer, has broken out; on the lip there is a similar spot, but the surface is quite level.

"His history is the following:—Two years and a half ago he contracted syphilis; secondary symptoms followed.

During the time he laboured under the complaint his wife became pregnant, went her full time, and the child was born healthy. A few weeks after birth it showed symptoms of secondary syphilis, spots at the corners of the mouth, and on the palms of the hands; the mother, who had been perfectly healthy up to this time, then (some months after her confinement) had unequivocal marks of secondary symptoms; no sore breasts, but Psoriasis palmaris."

"Van Sweeten relates a case of a woman whose business it was to draw milk from breasts, and who had a chancre; a number of women became tainted, who gave the taint to their husbands, and even many of their children caught it and died.

"There is also the well-known case at Sarenta, where every nun became affected by kissing a little girl who had previously been kissed by a stranger. I may also mention the case of an infant which was taken from Paris to Montmorency, which affected its nurse; she infected her husband, and he another woman, and so the contamination went on.*

The following is one of the cases which came under my own observation:—A youth, about fourteen years of age, was brought to me, suffering with an eruption on the skin. The medical man whom the parents had consulted informed them that the disease was psoriasis, and the patient was treated in accordance with that opinion. When seen by me I immediately noticed a copper-coloured eruption, and pursuing the examination further, I found the throat congested, with herpetic-looking spots upon it. The glands of the neck were also considerably enlarged. On questioning the mother as to the state of her health, she said that her husband had given her sores on her person two years before, and three

* *Lancet.*

months ago she had ulcers on her lips and the inside of her cheeks. She was in the habit of kissing her son night and morning;* it is probable, therefore, that he might have had some breach of continuity in the mucous membrane of the lips, by which the moisture on the lips of his mother communicated the taint to him.

This is a remarkable instance of the communication of secondary syphilis, a point on which there has been much debate. In this case there was no doubt whatever, and I may say that in my mind it is one of the most conclusive of the many that are adduced in proof of such a form of communication. It is in fact settled almost beyond dispute that secondary syphilis may be communicated. Even M. Ricord, who long held the opposite theory, has since modified his opinion, and no longer denies the danger of infection from secondaries. While alluding to this phase of the subject, I may as well furnish two or three cases from my records, as illustrations of such contamination.

CASE CV.—*Constitutional syphilis. Secondary stage. The wife contaminated during the existence of secondary eruption.*

F. D., a publican, called upon me some time ago, when he presented the following symptoms:—Sallow complexion, and much emaciated. He had a copper-coloured leprous eruption about the forehead, hands, chest, and scrotum. He had

* "M. Cullerier, says Dr. Whitehead, "relates the case of a young lady who became diseased from having received a kiss on the mouth from an officer. Four or five months after this occurrence an ulcerated tumour appeared on her lip. It was found to be syphilitic, confirmatory proof of its character being afforded by the fact of its disappearance after a course of mercury. She declared that she had never suffered any intimacy with any man, with the exception of the kiss just mentioned."

mucous eruptions on the verge of the anus, and similar ones on the lips; thus, as usual, the extremities of the great mucous tube were equally involved. His tongue and throat were also ulcerated, and his breath was intolerably offensive. His hair had nearly all fallen off, and what little was left had become grey. He informed me that some time previously to his calling upon me he had contracted a hard (Hunterian) chancre, which was a long time in healing. He was married, and his wife had then been some time in New Zealand. I placed him at once under a course of anti-syphilitic treatment, by means of which he rapidly improved. Before he was quite restored his wife returned to him, but had not been long with him before she called on me, complaining of hard swellings on the bones of the leg, pain in the collar-bones, together with stiffness and pain of the knees, wrists, and finger joints. She also had ulcers on the tongue, the inside of the cheeks, and throat. This patient was cured in three months by an anti-syphilitic course of treatment. Her husband was progressing favourably, when he committed suicide.

In this case the secondary symptoms were not preceded by any of the primary phenomena, but at once presented themselves, thus adding another fact in support of the assertion made by so many syphilographers, that each type gives its own impress. The following one is equally valuable on this point of identical communication.

Case CVI.—*Secondaries communicated, and latent eight years.*

When attending the practice of the late Dr. Maund, I was asked to visit Mrs. J——. Her husband was holding an official position, and had just returned from India. She was a lady of about 30 years of age, had never had any

family, and had enjoyed good health until two years previous to my seeing her. She complained of pain and stiffness in all the joints, which an Indian surgeon had pronounced to be rheumatism. There was pain and tenderness on the shin-bone of the left leg, and in the lower part of the spine; also pain in the head, which generally occurred at night. This patient had formerly a most luxuriant head of hair, but on this occasion she had so little as to be scarcely able to dress it. There were patches of ulceration on the right tonsil, the left cheek, and copper-coloured eruptions on the body, especially on the arms and chest. On interrogating her husband, he informed me that twelve months before he married he had primary syphilis, and a year after marriage he had the secondary form. Since then he had not had any indications of the activity of the disease in himself. His wife was not diseased until eight years after the secondaries had disappeared from him.

Authors of undoubted reputation have assured us that they have been unable to produce secondary syphilis by inoculation, although they have used pus and other secretions from incontestably syphilitic subjects. Still, Mr. Langston Parker asserts that MM. Walker and Vidal de Cassis declare that they have succeeded, and that he, as well as Biett, Cazenave, Lagneau, Stark, and Todd, has frequently seen secondary syphilis communicated, not indeed by inoculation, but by contact, more especially between husband and wife, the husband having had primary symptoms which were entirely removed before marriage.

Dr. John Elliotson, F.R.S., writing on secondary characteristics, says:—"My case, so striking and interesting to myself, sufficient to create a doubt in those who have never seen an example of the communication of secondary syphilis, and have habitually supposed it impossible—not-

withstanding the common and universally-admitted fact of the contamination of the germ within the mother by the father, who shows no sign of the disease, and must therefore communicate it as in the constitutional or secondary way, and does in truth produce not primary, but secondary symptoms—perfectly coincides with the recent observations of certain careful practitioners. For secondary syphilis was communicated, and the effect was, as indeed these words imply, not primary, but secondary syphilis. The symptoms produced were, as far as the disease went, those of the communicating person; the effect resulted, not from inoculation, but from mere continued and repeated contact and friction."

The case to which Dr. Elliotson alludes is so excellent an illustration of communicability by contact, that it would be an important omission not to cite it. It was that of a lady who called upon him with an eruption on her face, which was manifestly syphilitic. It had then been in existence two months. He treated it, according to his silent diagnosis, as a syphilide, and did not make any special inquiries in the matter for a short time, until he determined to put his patient under mercury; when he asked the husband, whom he held in the highest esteem, if he knew of any possible means by which his patient could have contracted such an eruption. It transpired that they had dismissed the lady's maid, having a similar eruption. It also appeared that the maid had an eruption, with cracks on her hands.* On Dr.

* "SYPHILIS INOCULATED ON THE HAND, BY SCRATCHING THE KNUCKLE AGAINST AN OPPONENT'S TOOTH.—(Under the care of Mr. Hutchinson.) We saw the other day a remarkable case under Mr. Hutchinson's care, illustrating one of the many unusual modes in which syphilis may be acquired. The patient, a policeman, aged about 30, at present has a very copious secondary syphilitic eruption of the mixed tubercular and squamous types, and in some parts, especially on the lower extremities, tends to become rupial. He states that it has been out for about five weeks. He denies having had any sore on the usual

Elliotson's next visit they showed him a prescription given to the girl as an out-patient at one of the London hospitals. On the ticket the disease was called *Psoriasis Syphilitica.*

Dr. E. says—"I have no doubt that the disease was communicated to the mistress from the maid, the palms of whose hands were sore, and fissured with syphilitic psoriasis. The maid arranged the lady's hair night and morning, doing much with her bare hands; applying oils, pomatums, &c., and smoothing it down flat with her palms, according to the fashion. Any *diseased secretion* must then have *been well rubbed into the scalp, especially at the central and front portion,* where *the hair was parted and the skin bared.* Had not the disease been arrested, there cannot be a question that it would have spread beyond the face, and probably affected the palms of the mistress like those of the maid. A wound or raw surface is not necessary for the effect of a contagion or poison applied externally; friction may secure

position, and a careful examination of his genitals convinced Mr. Hutchinson that no trace of a chancre existed there; and the same remark applies to his mouth and lips. There are no enlarged inguinal glands. On searching for a chancre in other parts, Mr. Hutchinson found an open sore on the dorsal surface of his right middle finger, near to the metacarpo-phalangeal joint; it is now of irregular shape, about as large as a fourpenny-piece, and does not present any induration characteristic of syphilis. He was also found to have a bullet-like enlargement of the axillary glands on the same side. On being questioned as to the origin of the sore on the finger, he stated that it originated in a scratch made by the tooth of another man, whom he struck in the mouth with his closed fist while taking him prisoner; this was about three months ago. He noticed that he made the man's mouth bleed a little, but cannot say whether there were any sores about his mouth or lips. The scratch on his finger bled slightly at the time. It healed up, but remained for some time (as he expressed it voluntarily) "a hard substance," and red; it then ulcerated. The sore is now rapidly healing. Any one interested in seeing the man will be able to do so on Monday next (11th inst.), when Mr. Hutchinson will give a clinical lecture on the case, at two o'clock."—*Medical Times and Gazette.*

its admission. Primary syphilitic sores constantly appear where there has been no abrasion; and I have known the poison of a person who had died of a malignant or virulent disease introduced fatally *by a sound finger being incautiously rubbed upon the most diseased spot during an autopsy.* Even friction is not often necessary; repeated application of the poison may prove sufficient."

This case, which is thought so conclusive by Dr. Elliotson, is in complete harmony with many of a similar nature which I could cite as having come under my own observation and treatment, and it aids materially in establishing the conclusion which my experience has forced upon me.

This section of the work is written especially to instruct the young practitioner that the dangers of contamination by syphilis are many and varied, and that the disease may be contracted without ulceration or breach of continuity in a mucous membrane or in the skin; and even that there need not be any external phenomena on the husband, still he shall contaminate his wife if he should at any time have been the victim of primary or secondary syphilis, without proper eradicative treatment. In the emphatic language of Parker, who stands high as one of our great authorities :— "*I am now as certain as I can be of anything in the domain of medicine,* that a healthy female may be contaminated by a man *apparently healthy,* but who has *been the subject* of a syphilitic constitutional taint, and *may receive from him a constitutional disease* without pregnancy or a primary sore having preceded it." Long experience and unquestionable facts urge me to this conclusion, and I am persuaded that continued observation will but confirm my belief in the facility with which not only primary but secondary syphilis may be communicated. The case of Mrs. J., which I have cited elsewhere, is but one of the many decisive illustrations which might be given in support of

the perplexing theory of communication, and in addition furnishes valuable evidence of the long period of latency that frequently exists.

CASE CVII.—*Syphilitic sores in the mouth, communicated by a husband to his wife, the saliva being the vehicle of contamination.*

Mrs. R., aged 30, who had never borne children, although she had been married six years, applied to me in January, 1868, suffering from an oval indurated ulcer on the lower lip. It was of a reddish colour, exuding an ichorous discharge. It had been on her lip for several weeks, for which she had been treated by a club doctor. She said the sore was very painful. I asked her if she had spots on the skin, to which she replied in the affirmative. By examination I found on her legs and chest *Herpes syphilitica,* which was conclusive that I had before me a well-marked case of syphilitic ulceration of the lip. Shortly after coming under my care her tongue also became sore. She had not—according to her own statement—had any sores on the genitals, but she informed me that her husband had ulcers in his mouth and on his tongue. This therefore was, in my opinion, an evident case of communication by diseased saliva. A course of anti-syphilitic treatment for six months was necessary to effect a complete cure in this case.

I may here again allude to the fact of a woman being infected by diseased or contaminated semen. It is a question of grave importance in its legal aspect, involving as it often does the happiness of families. A medical man is frequently placed in a most embarrassing position, when asked to give a reason, from his professional stand-point, for the appearance of phenomena that are suspicious in their nature. It is an

easy matter, unless he be well versed in the pathology of syphilis, to make mistakes of a serious character, and interpret the circumstances of the case in such a way as to give rise to the most unjust recriminations, as well as sever ties of the most sacred nature. An instance of this is given by Dr. Porter in the following words:—"But a very short time since, a young friend of mine, being professionally consulted on the subject, answered that a female could not be infected save in the ordinary way, except she had conceived, when she might be poisoned by her promised offspring; and as the person who had given occasion to the question was not in that condition, the opinion wrought an estrangement between her and her husband that has never since been cleared up. One such case occurring in a man's experience, and the untold miseries arising out of it, ought to be sufficient to prove the necessity of practically determining the point; for supposing this young surgeon's opinion to have been, *as I believe it was, decidedly wrong,** he will have been, most unintentionally on his part, the cause of an accumulation of suffering too painful even to reflect on." Cases like this may occur in the practice of any one at some time or other; hence the importance of close attention to the study of syphilitic phenomena, and caution in pronouncing an opinion as to the mode of contagion. The same eminent writer remarks—"I have observed enough of these cases to *establish as a law of syphilis, that the semen of a diseased man, deposited in the vagina of a healthy woman, will, by being absorbed, and without the intervention of pregnancy, contaminate that woman with the secondary form of the disease, and that without the presence of a chancre or any open sore either on the man or the woman!*"

* The husband was free from any phenomenal indication, the semen alone being the vehicle of contagion.

ON THE DIAGNOSIS OF SYPHILIS BY THE MISCROSCOPE.—Dr. Lostorfer read a paper at a meeting of the Vienna Medical Society, on the nature of the miscroscopic appearance of the blood of syphilitic patients.

"During the last few years several attempts have been made at explaining different diseases, and particularly infectious ones, by the presence of fungous growths in the blood, secretions, and excretions, as well as in the tissues of the human and animal body. In syphilis it was particularly the patient's blood which has been searched for organisms of a lower range. The result of these investigations, however, have been negative, with the single exception of Hallier, who describes a fungus, found in different infectious diseases, of that nature which has been called "micrococcus" by the same author. The micrococcus *per se* is not characteristic of any disease, but becomes so—according to Hallier's opinion—in the species produced by artificial cultivation. One of the greatest micrologists (De Bary) has objected in a most emphatic manner to Hallier's method of cultivation—so that it has been abandoned by almost all workers in that direction.

"Dr. Lostorfer thinks that the negative results of blood investigation have been due to two causes, namely—1. Hitherto nearly all researches have been made with too low powers; he is convinced that such investigations cannot be made with a less magnifying power than with Hartnack's eyepiece No. 3, and the immersion-lens No. 10. 2. All researches have been made with fresh blood, and the objects soon spoiled by an unfavourable method of preservation. The opinion has, unfortunately, always been prevalent, that what is to be seen in blood must be seen best in fresh blood, but it has been overlooked that things may be so minute as not to be viewed at first, but that they may grow to a visible size.

"Under these considerations, Dr. Lostorfer commenced his researches in August, 1871, in Professor Zeissl's wards for syphilis. The method observed was excessively simple. A small drop of blood, taken from a syphilitic patient, was put as quickly as possible on a clean object-glass, covered, the whole object conveyed to an exsiccatorium, arranged in a kind of Recklinghausen's moist camera, and daily carefully examined with the magnifying powers mentioned above. The result of the first four objects was already positive, and remained so afterwards in large numbers of objects, the blood having been taken from different patients suffering from various, yet unmistakable, forms of syphilis.

"During the first two days of investigation nothing could be seen except vibriones, bacteria, and commencing forms of sarcina. In the third or fourth day, however, and, in exceptional cases, after the lapse of twenty-four hours, minute bright corpuscles became visible, some of which remained immovable, while others continued in a state of undulation. Some of these bodies exhibited a projection. On the fourth day (exceptionally on the third, fifth, or sixth day) the corpuscles were enlarged in bulk and in numbers. Of those enlarged, the majority had the projections just named, which were undoubtedly a kind of sprouts, which in some cases were larger in size than the corpuscle itself. In the following days the growing continued, so that some of these bodies became as big as, and even bigger than, red blood-corpuscles. Besides these, there were numbers of smaller corpuscles visible, growing and sprouting, some exhibiting one projection, others three or more projections; the latter were sessile, or had a minute pedicle. The corpuscles were by no means all globular, but of different irregular shapes. After eight or ten days a vacuola was formed in the larger corpuscles, which extended over the whole corpuscle, and terminated the further development of the growth.

Different fluids, as sugar, Pasteur's liquid, common salt, acetic acid, &c., were not able to arrest the shrivelling of the bodies and further retrograde development.

"Concerning the number of corpuscles, it varies greatly in different cases. Whether this be dependent upon the different stage of the disease cannot yet be said, and must be reserved for further investigation. Dr. Lostorfer has treated in a similar manner the blood of patients labouring under gonorrhœa, diphtheria, eczema, typhus, elephantiasis, and lupus, but never found anything to be compared with the appearance of syphilitic blood. Dr. Lostorfer is cautious enough not to give any opinion as to the relation of the 'syphilis-corpuscles,' as he calls them, to the disease; whether they be the cause or the result of the latter he pretends not to know, but contents himself to state the facts he has found. After having alluded to a number of patients (and their histories) from whom he had procured blood for examination, he winds up with the statement that he is able in any case to form the diagnosis of syphilis by examining the blood microscopically."

After the paper was read, and received with great applause and encomiums by Skoda and Hebra, Professor Stricker confirmed, in addition, that the author of the paper had been tried seven times—viz., five times by Stricker, and twice by Hebra—in the following manner:—In the first trial, twelve objects, numbered and registered, were given to Dr. Lostorfer; two (Nos. 8 and 9) were taken from healthy persons, the other ten from three patients suffering from different forms of syphilis. After a few days, Dr. Lostorfer responded:—"Nos. 8 and 9 healthy, two objects spoiled, the rest syphilitic." Second trial, made with seven objects —"Nos. 1 and 3 syphilitic, the rest healthy." Third trial, with nine objects—"Nos. 3, 5, and 8 syphilitic, the rest healthy." In both trials, after four days the healthy objects

were picked out from the syphilitic ones, with the exception of the two objects which were spoiled. Fourth trial, with twelve objects—four syphilitic, and eight healthy. (The objects having by some accident been exposed to a temperature of 12·15° C., previous to their deliverance to Dr. Lostorfer, the latter replied that "Nothing abnormal could be detected.") Fifth trial, with four healthy and three syphilitic objects — the reply was corresponding to the registration made by Professor Hebra and kept by himself secretly. In the sixth trial, one syphilitic object was given, and five healthy; in the seventh, two syphilitic and four healthy; and in both cases recognised accordingly (*Medical Times and Gazette*, 27th January, 1872.)

CHAPTER X.

General Therapeutics of Syphilis.

In entering upon a brief discussion of this important question, I am conscious of the great difficulties which meet me on the threshold, and that they will be followed by multitudes of others throughout the investigation. Opinions have varied so conspicuously, and so many theories have been given birth to, lived for a short period, and then died, that a certain perplexity naturally associates itself with the inquiry. Even the greatest lights in the profession have confessed from time to time to a dimness of apprehension in reference to the etiology and therapeutics of this singular disease, which has long been more or less a scourge of the human race.

Its terrific character has at all times arrested the attention and puzzled the acumen of the most profound pathologists and enlightened physicians. Its ravages have led to the earnest desire on the part of all philanthropists that some measures might be devised for its eradication. They have not escaped the notice of the governing powers, and in most countries means have been devised calculated at least to mitigate its severity. Since the tremendous outbreak, during the latter portion of the fifteenth century, in Italy and Spain, and especially during the invasion of Italy by the French, which spread thence over Spain, France, Pomerania, England, Prussia, and Saxony, the medical art

has been taxed to the uttermost to discover remedies which would be available for combating the disease. The people, in alarm, and finding but little help in medicine, appealed in their ignorance and despair to their favourite saints, and St. Roche was the one most frequently invoked, until the disease began to be known as "*Morbus Rochi.*"

During this epidemic the phenomena were very severe, large, disfiguring pocks, with a tendency to phagedena, appearing everywhere on the body. We are, however, left without any very definite account of its pathological features, of its development, progress, and decline; nor are we enlightened as to the means employed, of a medical character, to arrest its progress. We are told that the infection was caught simply by touching the skin, without any sexual intercourse. Its generally contagious character without physical congress, as with other zymotic diseases, has led some to question the fact of the venereal nature of the plague.

This objection is, however, in some senses, untenable, inasmuch as it is by no means improbable that all epidemic and contagious diseases are less virulent now than they were centuries ago. We know that scarlatina, typhoid, and cholera, have, during their earlier visitations upon mankind, been scourges of tremendous power, that decimated populations; they are now comparatively innocuous, either because science is more able to cope with them, or by reason of the decreased virulence of the several viruses. If it is possible for a new disease to spring up from new cosmical developments, it is also possible that the force in the original germ or germs may, in centuries, lose its power, and eventually cease altogether. We know that in the vegetable kingdom, amongst the phanerogamous plants, new varieties will only live for a certain period, and after that stage has been reached, they will cease to propagate.

Should these morbid germs, which give rise to our contagious diseases, belong to the vegetable kingdom, there is no impropriety in presuming that the same law may apply in reference to their varieties, as in those vegetables more highly organised, to which allusion is made above. I am quite prepared to admit that the statements in reference to the great epidemic of 1492 are in the main correct, as the circumstances under which it appeared would be very likely to render it in an eminent degree virulent. Thinking thus, I am not surprised that Schœnbein and others amongst the moderns accept the statements of the writers of that date.

The descriptions of Fernel and Vigo, who wrote soon after that epidemic, are undoubtedly such as to favour the opinion that the disease was identical with what we understand by the designation syphilis. It was, presumably at least, the fountain of our modern disease, inasmuch as we can trace its history with the utmost exactness to that period. There are not a few who attribute its origin to the discovery of America by Columbus, and give to that great navigator the credit of having brought it from the new world. The Spaniard Oviedo first set this theory afloat, that Christopher Columbus, on his return from his first voyage on 13th January, 1493, brought the disease by his crew, who were said to have had it.

He has been followed in that opinion by Hoffman, Robertson, Astruc, Von Swieten, and others, who affirmed that the disease had not been seen in Europe prior to that occurrence. On the other hand, there is a large amount of evidence to its existence in Italy and other parts of Europe prior to this date, hence the hypothesis of its Maranian origin. We do not find, however, that there is any mention of the chancre until 1469, by Fernelius. Its nature then, as occurring amongst the persecuted Jews outside the gates of Rome,

was described as follows by Pope Alexander VI.:—"The prevailing epidemic is characterised by a variety of symptoms, more particularly by keen and excessively violent pains. Some do not have any pains, in the place of which they are attacked by *pustules* of various shapes and sizes, being very numerous on some individuals, and on others more scanty."

Amidst all the voluminous and interesting controversy which took place concerning the origin and nature of the great epidemic, there was scarcely anything to be gathered of a therapeutic nature. It appears to have been more important that they should discover its original habitat, or the date of its spontaneous evolution, rather than to search for its antidote. The early physicians seem to have been filled with terror. They flew to the remedies and resources which were commonly employed in other diseases, and expected that they would be of equal value. In this they were singularly disappointed. They depleted, they physicked, according to their general programme, uniting in one mixture half their pharmacopœia! but this was of little avail, we are told.

Everything that could be found in the *Materia Medica* was arrayed against it, but it was confessed that there was nothing which materially reduced its virulence. All their formularies, which had been obtained from the Arabian school, were tried in vain. Nothing appears to have been relied upon until the introduction of quicksilver, which in one form or other has remained to this date, as the chief remedy against syphilis. The origin of this discovery as a therapeutic remedy seems to have been accidental, as is the case with many of the best medicines that have been drawn to the aid of diseased humanity. It appears, from the earliest information that can be gathered on the subject, that attention was drawn to it by the fact of the workmen

in the Spanish quicksilver mines possessing a certain immunity from the disease in question, although it was extremely common amongst the rest of the community; also by the rapidity with which those men in the mines recovered, who were subject to the influence of the taint. There are, of course, various opinions as to the correctness of this statement; nevertheless it is generally admitted that mercury as a medicinal agent first came from Spain, where it had for some considerable period been used as a remedy against lepra, which was up to the close of the fifteenth century so universal and destructive.

It is known that there were at that time many mercurial ointments; one of them being prepared by the secretary to the Emperor Maximilian. They were, however, so imperfectly composed and blended with other medicaments, that their efficacy was extremely limited. Fallopius, in 1512, made considerable improvement in the composition of the ointment, and brought the plan of inunction into prominency, as a valuable mode of applying mercury. It was Paracelsus who, a few years later, conceived the idea and adopted the practice of administering the drug internally, the red precipitate being the form in which the metal was taken.

At the commencement of the eighteenth century, the several mercurial salts were brought into use. It was especially under the authority of Van Sweeten that these preparations came into prominent notice. Since then the variety of forms for mercurial administration has been increased considerably, and they have found their way into all the pharmacopœias of the world. In them we find calomel, sublimate, white and red precipitate; the nitrate, phosphate, and sulphate of mercury; the iodide and cyanide of mercury, metallic mercury, with a combination of cyanide of mercury,

For a long period mercury in one form or other was used almost exclusively as a specific against syphilis, but its mode of administration was so crude, and the quantity usually given so excessive, that much more mischief was done than benefit obtained. So disastrous indeed were the results of a long adherence to the free administration of this drug, that the more enlightened physicians began to doubt its value and importance as a medicinal agent in venereal diseases, and sought in other quarters for medicines which would be less damaging to the constitution.

That form of disease which we now recognise as tertiary syphilis, assumed at that time most alarming proportions, and soon made its appearance under the influence of the mercurial drug. The most frightful loss of substance in the several portions of the body, especially the head, face, and genitals, were alarmingly frequent; indeed to such an extent was this the case that nothing of the kind in point of frequency has ever been seen since. Utterly unscientific notions were prevalent as to the pathological and therapeutic value of ptyalism; hence it was carried to a degree which under no circumstances would be tolerated in the present day. Modern enlightenment has completely demonstrated the fallacy of allowing mercurial action to be carried so far as to seriously influence the buccal secretions.

The next remedy, which was readily seized upon as a substitute for the dangerous and apparently uncontrollable mercurial preparations, was the *Guaiacum officinale.* It held for a considerable time a favoured place as an antisyphilitic agent, and was especially valued as an antidote to the constitutional ravages of mercury. Afterwards sassafras and sarsaparilla came into vogue, and were more or less useful, but it was soon seen that these medicines had no specific power over the venereal poison, although they exercised considerable influence in restoring patients from

the debility induced both by the syphilitic virus, and mercurialism.

At the end of the seventeenth century gold came into use as an anti-syphilitic agent, under the conviction by many physicians that it was the metallic character of the drug which gave to mercury its potency over syphilis. That mercury was an anti-syphilitic was never questioned, even when it was discarded. It lost favour because, while it antidoted the syphilitic virus, it substituted an equally destructive disease of its own. Gold then, being a metal, suggested itself as a probable antidote also, which might not have similar destructive qualities. About the middle of the eighteenth century, platina, oxygen, and caustic ammonia were used. Since the discovery of iodine by Coindet, in the early part of this century, this drug has come to be used extensively with both mercury and potassium. It was, however, somewhat dreaded on account of its powerful influence on the human organism, when administered unskilfully and indiscreetly; and was not trusted until Dr. Wallace, about 1834, introduced it in combination with potassium. Since then the iodide of potassium has been in great favour, as a remedy in the treatment of syphilis.

The profession has at all times been divided into two sections, whose opinions have each been defended by men of capacity and distinction. The chief reason for the conflict which has raged at different periods with so much acrimony on this subject, has been the evils which were found to attend the use of mercury. The revulsion against that drug led to the establishment of the physiological school, in contradistinction to the "specific," which had led to such unsatisfactory results. Having determined upon the theory of a specific virus, it was natural that they should cling to the comforting solace of a specific remedy; hence, in the minds of many, there was a reluctance to abandon it for

the purely physiological system, which taught that the syphilitic disease could be cured by the restoration of the organic functions of the body to the normal condition. They argued that under such conditions the disease acquired must necessarily be eliminated by the efforts of the several emunctories.

Broussais was one of those who seized, with special earnestness, upon this new theory of treatment, and lent his assistance so freely and enthusiastically to its promulgation, as to cause him to be recognised as the founder of a new school, which soon had a considerable number of followers. It is questionable whether it would ever have found the number of adherents it is known to have had, if the folly of the specific school had not led to such disastrous results. So reckless were they in their administration of mercury, that even during the earliest years of the plague of the fifteenth century it was generally abandoned, and the physiological method tried.

The doctrine of Broussais, that there were no idiopathic diseases, necessarily led to the exclusion of syphilis from the position of a specific, notwithstanding its manifest peculiarities and virulence. If the hypothesis were right, it was inconsistent to retain syphilis as an idiopathic disease. Jourdan strenuously maintained the physiological doctrine, and carried out to the letter the teaching of the school to which he belonged. For several years great numbers of English, French, and German physicians, were content to set aside mercury altogether in syphilis, or use it only occasionally as a revulsive. They relied, in the treatment of syphilis, upon external applications, purgings, cauterising, depletions, &c., until experience taught them that the new theory was inapplicable to the venereal type of disease.

The lamentable failure of the Broussaists in dealing with syphilis on the pathological and physiological basis which

they had laid down, was the cause of a general distrust in the wisdom of the course pursued, and led to the meeting of a congress of European physicians at Nantes, in the year 1835, at which the physiological method was condemned as illogical, unscientific, and fatal in its results, when applied to the treatment of the disease known as syphilis. The French physicians especially expressed their dissent from the Broussaists, and when the votes were taken as to the opinion of the congress on the question, they were as five to one against the further consideration and employment of the physiological method.

Up to the present time there have always been a few men who clung to the opinions of Jourdan and Broussais, under the influence of a morbid dread of the reputed destructiveness of mercurial remedies on the human constitution. They are, however, but a very small minority, and are daily becoming less in number. The great majority of the profession have given in their adhesion to the theory that syphilis is a specific disease, and that it requires a specific treatment. This is at present the prevailing opinion, and guides in a great degree the practice of those who have given much attention to venereal disorders.

Notwithstanding the general unanimity as to the specific nature of syphilis, the opposite view has still its representatives, and amongst them the most conspicuous is Dr. Macloughlin, who wrote a pamphlet entitled *Proofs of the Non-existence of a Specific Enthetic Disease;* also a celebrated letter *To His Grace the Duke of Somerset, First Lord of the Admiralty, relative to the question—Is there a syphilitic virus?* His opinions are thus concisely recorded.

"1st. That the medical profession is in error in admitting the evidence of a venereal virus, or of a constitutional disease known as syphilis.

"2nd. The health of the men in the public service is

habitually damaged by the use of mercury, which the writer alleges to be indiscriminately administered by surgeons in the public service for the cure of a disease which, in his opinion, has no existence."

In his evidence given before "the committee appointed" by the Imperial Government "to inquire into the pathology and treatment of the venereal disease," he stated—"It was excessively seldom that I found a report brought to me that a woman whom a new patient had been with was diseased, or that she had anything the matter with her. The consequence was that I treated the genital sore as a common one." Also—"If it could be proved to my conviction that a given sore on the male organ following a promiscuous intercourse, accompanied by thickening and hardness, was followed almost invariably by eruption on the skin, and febrile symptoms ushering in that eruption, whether treated by mercury or not, I should remain of the opinion that I now entertain, that there is no such thing as syphilis."

Again—"I contend that in the act of sexual congress in the state of orgasm in which the genitals of the man and woman are, the genitals of the man, or those of the woman, or both, may be wounded; that these wounds can be cured by rest and ablution, without any bad consequences following, any more than follow the cure on the fingers and toes."

Dr. Macloughlin most emphatically strikes at the very root of the specific theory, and pronounces, with the confidence of a man who dares universal criticism, that *mercury should never be given.* His language in reference to treatment is as positive as that bearing upon the specific theory; he states—"Let the history of the cases of the so-called syphilitic disease be carefully recorded, and then let them be treated only by ablution of the parts, attention to diet, and to the general health, *but on no account administer any preparation of mercury.*"

In this last statement the gauntlet is fairly thrown down to the defenders of the specific theory, and the boldness of the advice is such as to arrest attention and court inquiry. When he tells us that for half-a-century he has treated all such diseases without specifics, and without mercury especially, simply as common sores, there is no possibility of ignoring his dictum. It would be nothing short of stupidity to do so. It is surely worth while asking whether so large experience, and such careful observation, are safe elements in an inquiry on which to found an opinion. They are admitted as the chief grounds on the other side of the question; hence they are of equal importance in judging of the value of Dr. Macloughlin's assertions.

Doubtless, the high position of this gentleman, his wide field of investigation and practice, as well as his great intelligence, have had considerable influence in modifying the opinions of medical men in Europe, on the treatment of syphilis; but it is not so apparent that they have exercised the same influence in swaying professional opinions as to the non-specific character of the disease. It was easier to modify the therapeutics of syphilis than to determine its etiology and pathology. Experience is of much more value in the former than in the latter, and, in fact, is of primary importance. Observations and analysis of the highest order are required, to investigate with any hope of success the conditions of the latter.

Dr. Macloughlin is almost alone in his profound discredit of the specific view, although there are a few who are wavering between the two extremes. Many of these are prone to give another name to much that is known as syphilisation, and call it mercurialisation, under the conviction that the dreadful phenomena, so often met with as the secondary and tertiary stages of the disease, are owing to the too free administration of mercury. Professor Syme is

a gentleman who holds opinions of this kind, and says :—"I think if mercury had not been used, we should have heard much less about syphilis."

Such an opinion, from such a source, exhibits clearly the hesitation which exists amongst thinking men in the profession, to accept without question the "specific virus" theory; and leads to the conclusion that the investigation has not yet been exhausted, so as to command common consent. There is so intimate a relationship between the doctrine of specificity as to the disease, and the dogma of specific antidotes, that I am not surprised to find the professor state that he "would rather abrogate the system altogether, and treat the disease on very simple principles." That his objection to the mercurial treatment is by no means dependent on the magnitude of the dose, but upon its special qualities as a drug, is evidenced by his opinion that "the modified use of mercury has perhaps done more, or as much, harm as the profuse administration of it."

He avows his confidence in non-mercurial treatment in the case of the primary sore, by relying upon cold water, and mild lotions; and in the secondary condition upon ordinary surgical principles, such as would be applied in other analogous lesions or disorganisations.

The opinions of Professor Syme are entitled to serious consideration, because for upwards of thirty years he has discarded mercury in the treatment of syphilis. He admits that formerly he was led away by the plausible assumptions of the specific theory, but found it wiser to rely upon simple remedies. His experience taught him, that mercury frequently relieved the existing symptoms of the disease, but that it had an effect upon the constitution which exposed the patient to some subsequent attack in a more aggravated form, either in the part originally affected or in some other, and "goes on course after course with progres-

sive deterioration, until that final cachexia is produced, when it is pushed far enough."

Although the opinions of the learned and distinguished professor are not given with the same dogmatism as those of Dr. Macloughlin, they are of equal, if not greater, weight in the inquiry, and must be received with respect. They cannot be dismissed without examination. I am aware that they are not endorsed by the leading syphilidographers, who one and all adhere with more or less tenacity to the specific character of mercury as a remedy, although using it with infinitely more caution than was formerly customary. It may, however, be admitted that Professor Syme and Dr. Macloughlin are the two chief exponents of the physiological theory, but they are confronted with an array of specialists sufficiently numerous and influential, to deter less matured physicians from promulgating such opinions.

The extreme caution which everywhere prevails in the use of mercury for syphilitic diseases by the non-adherents of the physiological system of practice, is a tacit admission, to a certain extent, that the Broussaists are not entirely wrong. The discussion on the subject has been productive of great and lasting good, if it has eventuated in nothing else than forcing upon the profession at large the necessity for a reform in the administration of mercury, the bugbear of the physiologists and the bane of the old specificists.

It will be necessary, in reviewing the therapeutics of the disease under consideration, to allude to the opinions and practice of the leading syphilidographers who hold to mercury as a specific remedy for a specific virus, and it will be seen that if the subject has to be decided upon the weight of evidence, the eminent adherents of the physiological school just named will be in such a minority as to be practically overweighted. The dispute, however, is not of so momentous a character now as it was formerly, inasmuch

as the consequences of mercurial treatment are not so malignant, nor so commonly witnessed, as when mercury was administered more freely. It would be desirable in the interest of science to set the question finally at rest, by bringing the profession to decide upon the point. This is scarcely practicable at present, from the tenacity with which the rival exponents hold to the theories they have last espoused. One thing is patent to every observer—viz., that there is a growing tendency to fall back upon mercury as a specific in treatment of syphilis, as the congress at Naples sufficiently proves. The temper of the physicians and surgeons at that discussion was such as to evidence that the physiological method had been long enough on its trial, and had signally failed. The *pronunciamento* of that famous congress has completely altered the opinions and practice of that large proportion of the medical world, who wait patiently for the determination of their leaders before committing themselves to any definite course of action. These at once *en masse* abandoned the physiological method, and up to this time have timidly applied the mercurials to the treatment of the disease.

On the side of the specific school we have Mr. Hutchinson, who is as positive in his defence of the specific value of mercury as Dr. Macloughlin is of its dangerous and injurious properties. His opinion is that "it procures the absorption of specific lymph in the primary, and in all the earlier stages of the secondary disease; it procures a rapid absorption of lymph, and a healing; in fact it checks the inflammatory process, as a whole, in the early forms of syphilitic disease."

In contradiction to the physiological school, he asserts that syphilis is the result of a poison communicated from one person to another, by sexual or other contact, and indicates its existence by certain well-known analogous forms, the

soft and indurated sore being simply different expressions of the operation of the same poison, which are determined by a variety of circumstances. The so-called primary and secondary diseases are the direct consequences of the absorbed poisons, and the tertiary are the sequelæ of its ravages on a cachectic or depraved constitution.

The profession is now almost united on the question of there being a poisonous virus which produces the diseased phenomena known as syphilis. However much during the last fifty years they may have desired to ignore its existence as a specific disease, there is now a general acquiescence in its specific nature. The majority are as much convinced of this fact as they are of the existence of any other specific contagious disease, and the dissentients are yearly becoming less numerous and less confident. It is impossible to ignore the fact, that after contact under given conditions a uniform set of symptoms is developed at regular periods, and that this uniformity is so conspicuous as to demand universal recognition. Among the several forms of expression which the disease assumes, it will invariably present one or more recognised types, determined by the constitution of the recipient, but they will be of a specific character.

If the existence of a specific virus in syphilis is to be denied, it is equally necessary that its existence should be also denied in all other contagious diseases. Precisely the same kind of evidence is found for the one as the other. Each has a distinct train of phenomena following its inception, having "a peculiar and specific train of morbid symptoms." It is difficult to ascertain, even from the arguments of the physiologists themselves, what foundation they can possibly have for placing syphilis in so exceptional a position as they have given to it. They do not, in my opinion, get farther than the indefinite position of hypothesis, and this is defended

on what must be admitted to be loose and vague generalisations.

It is certainly worth determining which side of the discussion is the true and philosophic one, inasmuch as the whole question of therapeutics depends materially upon the decision. It is true that many who are united in the opinion that there is a syphilitic virus, still differ widely as to the mode of treatment, many relying upon mercury as the sole specific antidote, while others with equal confidence deny its importance and never administer it. They, however, are equally removed from the physiological school in their medication, for, although some of them may discard mercury, they still select other remedies on the plea of their supposed specific character in relation to the disease.

This fact, however, does not clear the ground sufficiently of the doubts which, in the beginning of the nineteenth century, arose as to the nature and treatment of syphilis, and which have been revived by the more recent dicta of Dr. Macloughlin. There is a specific virus, or there is not. This is the proposition which has to be determined upon. From all that has been written on the subject on both sides, it is clear that the evidence of a poisonous virus existing, and being communicable, is more decided than the evidence as to mercury or any other medicine being a specific remedy.

The therapeutics of the case are, therefore, environed with more difficulty than the decision as to the nature of the disease. The largest field, perhaps, for the investigation of the question is the European armies, and in an especial degree the British army. In the latter, notwithstanding all that has been charged upon the medical officers, the claims of mercury to be considered a specific have been fully examined and tested. In the years 1817–1818 the army surgeons treated 1940 cases without mercury, and with good

results. During this time it was in general use in civil practice. It was in that large and valuable field of observation that the proposal to reject mercury in the treatment of syphilis was prominently set forth, and it was endorsed by Dr. Thomson, the professor of military surgery at Edinburgh, Mr. Rose, and others. The document bears the signature of Dr. M'Gregor and Dr. Franklyn.

Mr. Perry, Surgeon in the Royal Artillery, was a non-mercurialist for ten years, and after that time, in order to compare fully the two systems of treatment, he used mercury to some extent, never to salivation, and was obliged to assert, after such comparison, that "little or no good was produced by the action of mercury." This circumstance induced him to confine himself to the local form of treatment. He, however, admitted that in some severe and chronic cases the drug might have a beneficial influence, but not a specific one.

This shows clearly that the military surgeons, who have had the largest opportunities for accurate observation, were by no means, as a body, wedded to the old opinion in favour of mercury as a reliable therapeutic agent in this disease. They especially have condemned its use in the phagedenic sore, and only partially conceded its limited efficiency in the hard or Hunterian chancre.

As an illustration of the caution used in the navy by some of the ablest medical officers attached thereto, I may cite the opinions of Dr. Thos. Nelson, of the Royal Navy, who affirms that he uses mercury sparingly; and speaking as the mouthpiece of his brother medical officers, he says, "We never use it in the primary sore." He further expresses his dissent from the specific theory by saying, "I do not consider mercury an antidote." His view is that mercury rather acts as an auxiliary in some pathological sense to other remedies, than possessing any specific affinity for destructive combination with the venereal poison.

The remarkable hesitancy which exists in the profession to rely upon mercury as a sheet anchor in syphilis is obvious, when surgeons of such experience and rank as Langston Parker go so far as to abolish mercury in all forms of syphilis, unless the sore has continued open for a very long period of time, and he avoids using it by the mouth even then. He, however, qualifies his rejection of the drug by saying, "Sometimes the indurated ulcer will not heal without mercury." The only real advantage which he appears to concede to it is, that it occasionally prolongs the interval between primary and secondary syphilis.

In the confusion which exists relative to the specific qualities of mercury in the disease under consideration, there are certain inconsistencies which lend apparent support to the physiological school. It is fair to urge, that if mercury is a specific for the syphilitic virus, it should, at all stages of treatment, while that virus is in activity, or even latent, exercise its reputed influence in controlling it. This, however, is not conceded by Parker, nor by many of those who continue to use it, and who have returned to it after a long and careful trial of the physiological method. Mr. Parker is not alone in the opinion that "the pustular and tubercular forms of the disease do not readily yield to mercury." Another authority, Mr. Lane, surgeon of the Lock Hospital, has announced his opinion that "he does not think that mercury is of any use in the treatment of the soft sore." If these opinions in reference to the partial influence of the drug in syphilis being confined to but one or two stages be correct, the physiologists, or anti-mercurialists, have certainly some ground for demanding that the term "specific," as used by the mercurialists, should be defined before the discussion goes any further.

The original meaning and application of the term was intended to convey, that under all circumstances of contami-

nation by the venereal poison, the direct neutraliser and annihilator of the morbid germs thus introduced into the organism was mercury, and was such in a pre-eminent degree. There was then no modification of terms. Absolute reliance was placed upon it as an anti-syphilitic agent. Taking Mr. Solly, the senior surgeon of St. Thomas' Hospital, as an exponent of that side of the controversy, he goes a long distance in defence of mercurialism, asserting that in the primary disease mercury is the only safe treatment, and avows that so doing, as a rule, is a safeguard against secondaries. He seems to qualify this bold assertion by saying that "mercury is the most positive and certain remedy *that we have in our possession.*" But the singular uncertainty of the mercurialists is seen in the confession of this gentleman, that even under the most favourable conditions he can prevent the recurrence of syphilis in the secondary form only once in fifty cases. This is certainly nothing to boast about. Such a result as this cannot be accepted as evidence that mercury is a specific, or a very remarkable agent in controlling its several forms of expression.

The practice of this gentleman is as follows. He says:—"I give a course of mercury for five weeks for the primary disease, and for eight weeks for the secondary, unless there is such a condition of constitution, such debility, and such general cachexia, as forbids the use of mercury to the extent to which I should otherwise wish to push it; then I combine it with iodide of potassium, giving the bichloride of mercury with the latter."

It will be seen that Mr. Solly is one of those who believe that mercury is the specific *par excellence* for syphilis; but he is one of a very small minority, which is every day becoming greater. I have pointed out the treatment of the several surgeons mentioned above, in order to exhibit the great discrepancy which exists amongst our leading

syphilidographers in reference to both the nature of the disease and the value of mercury as a remedy. The last mentioned insists that in every stage mercury is useful. The great majority of those who still estimate mercury as a valuable remedy deny its utility in all stages. Many contend that in the primary stages it is inadmissible.

M. Victor de Meric, surgeon to the Royal Free Hospital, restricts its use to the indurated sore; while Mr. Holmes Coote, surgeon to St. Bartholomew's Hospital, does not use mercury in the primary forms of syphilis at all. This gentleman has come to the conclusion that its best effects are seen in the early access of secondary symptoms.

The conflict of opinion is such as to prevent the settlement of the question, whether the claims of mercury to rank as a specific agent are sound? It is manifest that there is an increasing confidence in it as a remedy, and it seems to answer the expectations of most of those who use it. That it does exert an influence of an ameliorating character on the disease, the experience of the best authorities endorses, but whether it be a specific antidote to the venereal virus is not yet determined.

There is no one apparently bold enough to assert that it acts as a specific—that when administered early in the progress of the disease it is capable of destroying it. There is no reason, from the experience of the best syphilidographers, to assume that it possesses any of the chief properties of a specific. Its warmest supporters hesitate to claim such powers for it. Finding that it does not meet the true qualities of a specific in practice, they simply plead that it modifies the severity and duration of the symptoms; but this is not enough on which to base its reputation as a specific antidote.

Were it what the rabid mercurialists claim for it, there would be occasionally at least evidence of its power in arresting finally the progress of the syphilitic taint, and the

absolute escape from secondary symptoms. But there is no encouragement of that kind whatever in the practice of any of those who have devoted the most attention to venereal diseases, and have had the largest opportunities to expect such result. On the contrary, the secondary state is expected as a matter of course to follow the chancre. The whole surgeon's art is directed merely to the prolongation of the interval, and to the modification of the eruption when it takes place.

This is by no means a consoling conclusion in reference to the treatment of this dire disease. It may be that mercury is the best instrument we have in the case, but its shortcomings are from what is already a reflection on our repertory of medicines. And it has this very damaging reputation in connection with it—viz., that by almost common consent it is credited with being the cause of most of the so-called tertiary phenomena. Professor Syme asserts that "the tertiary stage is owing to the treatment that the system has undergone" from mercurial treatment, and this distinguished surgeon is by no means alone in this opinion.

Many believe its efficiency to be most apparent in the primary stage; others rely upon it only in the secondary; but few venture to apply it to the tertiary. These facts would warrant us in deposing mercury from the presumed rank of a specific, while at the same time we may admit that it has certain properties which cause more or less deviation in the expression of syphilitic phenomena. That the disease is a virulent and specific one is proved by inoculation, and that it never occurs spontaneously. There need be no discussion as to the nature of the disease, but it is clear that mercury does not meet it on the same plane. They do not operate in parallels.

Another disturbing element in the discussion is that the patient gets well without treatment, and the mercurialists

endeavour to escape the dilemma by asserting that the disease is longer in running its course without mercury than with it. Still the fact is admitted, that medical treatment is not a *sine qua non* for the disappearance of secondary phenomena. This, however, does not prove that mercury is useless; it only lessens the force of the argument in favour of its specificity. It is as confusing as the assertion of Dr. Wilks, that "there are two processes in a syphilitic case—the one *formative*, showing the effects of the virus in the albuminous depositions; the other exhibiting the degenerations of the tissues from the long continuance of the morbid action. *Now, mercury opposes the first and favours the second.*"

Viewing the whole question, therefore, from the standpoint of a neutral party conversant with the opinions of those competent to express any that will be respected, I am satisfied that, although it is confidently urged that the "profession is coming back to mercury," and that they are justified in doing so, we must have a reliable data on which to assert its specificity. I have in my experience found it to be a valuable therapeutic agent in the treatment of the secondary stage especially, and in many cases of a primary character. That it might be dispensed with, in reliance upon other remedies, is, in my opinion, doubtful, if it be true that it exerts any influence at all on the disease. There is sufficient evidence of its administration being followed by immediate improvement, when a cure has been sought for in vain under other medicines.

Mr. Acton gives a striking illustration of this fact in the following narrative of a case which came under his observation:—"A surgeon, who had lived in India, and taken a great dislike to the employment of mercury, contracted indurated chancre in December, 1847. Towards the latter part of January, 1848, he consulted me, and I explained to

him my ideas on induration. My patient objected to mercury, stating that his occupation prevented his applying the remedy; his health, he thought, would not admit of it, and he moreover objected on principle to a remedy which he had always dreaded. Finding him thus indisposed to follow my advice, I could only remain a passive spectator, and note the consequences, particularly as at that moment I had several cases under my care of indurated chancres that were taking mercury, and I could draw comparisons.

"Black-wash was employed, and the patient determined to do nothing else besides attending to his diet, and avoiding late hours. In the commencement of March blotches of a bluish livid hue appeared on the abdomen and thighs, the throat became affected, but still the patient objected to employ any mercury; the open sore still presented much the same characters of induration. I then lost sight of him until November, when he returned to see me, stating that he had been in the north, and had placed himself under the care of Mr. Syme; in consequence of an attack of syphilitic iritis, that surgeon prescribed mercury, and he slowly recovered."

Mr. Acton goes on to say—

"Now, notwithstanding all the objection which may be made to treat indurated chancre with mercury, the result of such a case as this will not encourage any one to follow simple treatment. A non-medical patient is not likely to choose to have an open sore continuing many months on his penis. Certain northern surgeons teach their pupils that mercury is not necessary for the cure of syphilis in any form. While the patient is in hospital, and confined to a warm ward and comfortable bed, no very serious ill consequences may happen. But in private practice the after consequences of neglecting to use mercury will convince most medical men, as they have myself, that whatever hospital surgeons, with European reputations, may do or omit, a private practitioner

cannot allow syphilis to go on unchecked unless at the sacrifice of his reputation.

"It is my deliberate opinion, that mercury is absolutely necessary for the general treatment of indurated chancre; nor do I stand alone in this. Whatever difference of opinion may exist on the mercurial or non-mercurial treatment of simple or phagedenic chancre, either for the dispersion of the local affection or for the prevention of secondary symptoms, there may be slight differences as to the doses and forms, but on the propriety of giving mercury great unanimity exists."

The unsatisfactory condition of the inquiry on the specific qualities of mercury is apparent in the writings of this experienced and able surgeon, who himself is one of the most determined advocates in its favour. It is not conducive to the settlement of the question to descant upon this interesting portion of the therapeutics of syphilis with looseness and vagueness, yet such is the case in every line. He conducts the discussion as follows:—

"There are authors who maintain that we should give mercury in the earliest stage of chancre, *so that the antidote and the poison may enter the system together.* This doctrine might be tenable provided we held that all chancres require mercury, but as nine times in ten primary symptoms *do not require* mercury, and as during the first few days it is impossible to say what sores will become indurated, and therefore be followed by secondary symptoms, we should, if we were to give mercury, do so unnecessarily in nine cases out of ten. The advocates of these opinions have not shown that their treatment is more successful than any other. I have not found it more difficult to treat indurated chancre that has existed a fortnight than one which has become hard only a few days before, and I have observed no severer secondary symptoms follow the one than the other. How-

ever, in advocating caution, I would not be supposed to recommend the surgeon to put off the use of mercury for an indefinite period; if the hardness does not abate, or if it increases without any assignable cause, or if gangrene is set up in the centre of the indurated mass, I would at once commence mercury, for delay can now be of no use."

This paragraph exhibits, as fully and clearly as anything can do, the uncertainty which environs the whole question, and shows that even practitioners of extended observation and large experience have not come to any definite decision. In his reference to the authors who, in reliance on mercury as a specific, insist that the antidote and the poison should enter the system together, he does not treat them with the respect that they deserve. At any rate, they are alone in their consistency, if we except Dr. Macloughlin on the other side. They are to be commended for holding definite and unmistakeable opinions on the subject, which are free from ambiguity. According to them, there is a specific poison and a specific antidote. These authors are perfectly intelligible, inasmuch as the whole discussion is narrowed down to one point.

Mr. Acton goes on to say:—"This doctrine might be tenable, provided *we held that all chancres require mercury.*" In this expression he gives up the whole question of the unity and specific character of the disease. If all chancres are syphilitic, and mercury is required for any of the chancres to combat the poison they contain, then all chancres require to be so treated. How Mr. Acton can assert that *nine times in ten* primary symptoms do require mercury, when admitting that syphilis cannot be treated without mercury, is difficult to discern. The primary symptoms are as much syphilitic as the so-called secondaries: indeed, they constitute the most distinct phenomena of the disease.

If mercury, therefore, is of any value as a controller of syphilitic expression, it is reasonable to suppose that it would be more likely to act upon the virus in its least complicated condition, which is the primary stage. To wait until it has so disturbed the blood system, and the walls of the capillaries, as to produce excessive exosmosis into the areolar tissues, and by the acquired poisonous character of the fluids produced irritations of more or less virulence on the skin, is not by any means a logical proceeding.

The chief foundation for the general reliance upon mercury is, not that it has been demonstrated to be a specific, but because usage has pronounced in its favour. "Clinical observation teaches us that mercury must be given in this disease. Scientifically the treatment is right. The chief force of the objection lies in the allegation that mercury will not always prevent secondary symptoms." It would be well if Mr. Acton could define in what sense it is "scientifically right" to treat syphilis with mercury. Mr. Syme says that "we are all empirics," hence it would be nearer the truth to say that empirically we are right in relying upon mercury.

On this basis alone is the treatment becoming more general, and it is all that we can expect. In this, as in other cases, experience is teaching us what to do, and in the management of syphilis mercury as yet occupies the chief place. Its *modus operandi* is unknown. Its phenomena alone are under observation. Its apparent utility is the only point generally conceded. How far it acts as a preventive of secondary phenomena is yet a subject of earnest disputation. Were that second point determined finally in the affirmative, by perfectly reliable data, a most important difficulty would be removed.

With reference to this last element in the discussion, my own experience preponderates in favour of the drug exercising some control over the appearance and virulence of the

secondary phenomena. Even with all the care that can be taken in collecting facts on which to rely, the evidence can only be presumptive, so many questions of constitution, temperament, &c., come into operation to disturb the conclusion. Absolute certainty appears impossible. I have over and over again endeavoured to test it in the following manner:—I have simultaneously selected two cases of chancre for treatment, one without, the other with mercury. It has happened that in every instance save one—for which exception I considered myself able to account—the patient treated with mercury was sooner cured of the induration, and it was longer considerably before the secondary stage arrived. In some cases the patients who had taken mercury had no secondaries, at least not for the years that they were under my observation. I also noticed, as a rule, that those who had them after mercury suffered less than the others. With reference to those treated on the physiological method, and with iodide of potassium, the existence of the induration of the chancre was prolonged, and in no case was the secondary stage escaped from; it appeared in all, and generally within twelve months after the discovery of the chancre.

These facts appeared to me worthy of notice, and if not accepted as conclusive proof of the direct influence of mercury as a controlling medicament in syphilis, they most assuredly give to the theory some colouring of probability. In my own practice I confess that it has considerable weight. Since a sufficient number of such facts have been ascertained, I have not hesitated to place considerable, and indeed I may say chief, reliance on mercury, from the earliest stage of contagion.

It will be necessary briefly to refer to another medicine (iodide of potassium), which for a long time usurped the position of mercury, and still with many of the profession

contends for equal, if not superior, powers as an anti-syphilitic. I have almost daily instances coming before me of the partiality of many professional men for this favourite drug. Patients arrive in this colony from all parts of the world with the venereal taint upon them, who have undergone various forms of treatment. I find that in very many cases, from both Europe and India especially, that the iodide is very extensively relied upon.

Dr. Walter Dickson, Medical Inspector of Customs, England, states that "he uses it very largely, and has seen it used very largely in the hospitals" to which he was attached from time to time, and with great benefit. In his opinion it is a tonic, as well as anti-syphilitic, when given in doses of fifteen grains a day. Many surgeons use the iodide internally and mercury externally, and rely entirely upon it in the tertiary form of the disease.

There are others, and amongst them Dr. Beith, Deputy Inspector of Hospitals and Fleets, who think that iodide of potassium and mercury given together form a more active mercurial agent in the chemical combination of iodide of mercury. Still, cases of salivation are very rare under it; of course, such opinion is in the region of theory at present. It is scarcely probable that if such a product was eliminated in the organism, that the evidences of histological disturbance would not be more conspicuous. By common consent iodide of potassium is a tonic, while mercury is generally classed as a depressant. Its special property being that of a tonic and vitaliser, is proved by the beneficial influence it exerts in all cachectic conditions. In them it is pre-eminently useful. Mr. T. A. Lane, Consulting Surgeon to the Lock Hospital, and who has had large experience in its employment, fully maintains that opinion. It is, however, found to be advantageously associated with preparations of sarsaparilla, with iron, bark, and alkalies.

Mr. Lee, a syphilidographer of considerable note, states that "iodide of potassium is an excellent remedy in many forms of tertiary syphilitic ulceration, in cases of enlarged glands, and in syphilitic affections of the bones. From three to five grains of this medicine three times a day, will seldom fail to relieve the pain of a syphilitic node in a few days."

Professor Syme also affirms its utility, but goes much further than most surgeons in its appreciation, using it in the treatment of the secondary stage. He at the same time lets us know that he thinks it requires considerable care in its administration, when he says:—"I use it with caution, as the iodine is likely to do as much harm as mercury." On the other hand, Langston Parker states that it has been overrated. Mr. Jonathan Hutchinson considers that it acts in the same way as mercury, but less efficiently, only differing in degree.

These are, then, the chief agencies relied upon by the profession in combating the serious phenomena of syphilis, and mercury holds the first place, with iodide of potassium the second. All others are quite subsidiary, and only can be used as auxiliaries in combating certain constitutional and accidental modifications. The therapeutics of syphilis have no other ground than a simple generalisation from facts of a varied character, collected by a multitude of observers more or less influenced by the conflicting theories.

It may, then, be agreed upon—notwithstanding the sarcastic assertion of Professor Syme, "if mercury had not been used we should have heard less of syphilis"—that mercury is our chief resource. It remains to ascertain how it is best to be administered, in order that it shall simply have a curative action, and not a destructive one. That there are reasons for preferring some forms to others is well known to

those who have much to do with its administration. Some act with much more virulence than others, and certain constitutions are more amenable to one form than another. It is a well-recognised fact, that there are some constitutions especially intolerant of mercury, and this should never be forgotten when we determine upon using it in medication.

Pereira states that "it sometimes happens even from very small doses, from some peculiarity in the constitution of the patient, that the mouth becomes violently affected; the gums are tumefied and ulcerated; the tongue is swollen to such an extent that it hangs out of the mouth, incapacitating the patient from either eating or speaking; the salivary glands are enlarged, most painful and inflamed, and the saliva flows most conspicuously from the mouth. In some instances the gums mortify. . . . I have frequently seen inflammation and ulceration of the mouth, and profuse salivation, induced by only a few grains of calomel, or other mercurial."

This is a circumstance which I have more than once noticed, and have been forced to remember. In one instance, a woman, who was in the habit of taking a blue pill when she was constipated and out of order, having them at hand, gave her little girl, who was ailing, a third of one, under the impression that it would be of service in correcting some disorder of the bowels. Twelve hours after all the violent symptoms of salivation set in, and nothing could arrest them. Soon gangrene of the mouth and destruction of the right alveolar process occurred. It must be occurrences of this kind which led Professor Syme to attribute much of the syphilitic phenomena to mercurialisation.

His confidence in such conclusions must have been induced by reading such facts as those given by Dr. Graves, in the first volume of *Clinical Lectures*, page 452, vol. I. He

says:—"I stated in my last lecture that the mere fact of a considerable time having elapsed since the patient took mercury is no proof that the symptoms were not mercurial. I have over and over again met with cases of periostitis in persons who had been two, four, six, and even eight years without taking mercury. I was called the other day to see a lady whose mouth was sore, and her breath fetid; in fact, she presented all the phenomena of mercurial salivation; and yet it is now several years since she took mercury, by the advice of an eminent Dublin physician. Still more recently I have witnessed the recurrence of ptyalism after two years, in a gentleman who was salivated in the first instance by myself, and who had not, in the interim, taken a single grain of any preparation of mercury—not even an antibilious pill."

These, and many other cases which I could adduce from my own experience, point out most emphatically that mercury, even when given as an antidote to syphilis, must be administered with great discretion, and with special regard to the TEMPERAMENT, CONSTITUTION, and IDIOSYNCRASIES of the patient. I have, from experience, made it an invariable rule to be guided by those conditions, and by so doing have found myself rewarded with more marked success than in former years, when less circumspection was practised.

The following physical conditions should be noted:—

A. The Spare Constitution
B. The Muscular „
C. The Anæmic „
D. The Plethoric „

As a general rule, it will be found that the anæmic and the spare will respond with the greatest readiness to its influence, and suffer most from its poisonous expression. It is not to be denied that there are cases where both plethoric

and muscular patients are intolerant of its action, and become much disturbed by it, but it is in the other two types that its application should be watched with special interest.

From the extended experiments which I have made in its use, I have been convinced that the objectionable phenomena which have resulted from it have arisen chiefly from quantitative rather than qualitative conditions. Smaller doses than are usually given are equally effective with large ones, in arresting syphilitic progress in the organism, but they do not disturb the vital processes. Any approach to ptyalism is injudicious, inasmuch as it indicates that the whole of the animal fluids are thrown into a highly abnormal condition.

This unwise and unnecessary saturation of the system is the origin of the many sequelæ spoken of by Professor Syme. When the system has recovered its tone after an undue mercurial course, the vital forces eliminate the drug by the skin, and, in so doing, exhibit those destructive phenomena which have brought so much unnecessary discredit upon the drug.

It is imperative that we should bear in mind that the active principle in mercury is virulent in the extreme, and that every atom plays an important part when it enters the organism. Observation of its operation leads to the conclusion that it has a curative and irritative action, and that the former is interfered with in proportion as the latter is allowed to come into play. My own experience is especially corroborative of this view. I have found that mercury, in combination, is often equally effective in its curative influence as when administered alone, without the drawback of the destructive and corroding action on the tissues.

I seldom use the drug alone, knowing that it has one quality which we should be glad to get rid of, as not

appertaining to the curative process. For a long time I had been dissatisfied with it in all its ordinary forms, owing to the disturbing element contained in it, and sought for some corrective by which it might be modified. Three substances possess the desired property in a satisfactory degree—viz., chlorate of potash, common salt, and hydrochloric acid. The experiments which I made with them have fully borne out the hypothesis which I had adopted, and I have since then administered mercurial preparations in entire concordance with it.

I cannot concur on any ground whatever with Pearson —who was said by Sir Benjamin Brodie to have been eminently successful in his treatment of syphilis—that "for primary symptoms, it will be necessary, where these have not existed long, to use not less than two drachms of calomel internally, or three drachms of mercury in blue pill, or from an ounce and a half to two ounces of mercury internally, not including the substances with which it is combined. When secondary symptoms are present, from two to three ounces of mercury externally should be used; and when the disease has attacked the bones and membranes, from three to four ounces—seldom less than four ounces."

The above treatment could be designated as nothing less than heroic, and must, under any circumstances, be highly deleterious to the animal economy, whether given in syphilis or other idiopathic diseases requiring the drug. Such a course could not but eventuate in disaster to most constitutions, while a bare few might escape through the existence of some special constitutional resistance to its irritating property. There is a proportion in which the drug may be advantageously used, by which we can obtain all the advantages inherent in mercury, and in which its objectionable qualities will be almost inert.

But I have found it safer to associate it with one or other of the substances mentioned above, which effectually prevents the mercurial accumulation which would otherwise inevitably occur.

I am also convinced, from experience and observation extending over several years, that the mode in which the several forms of the drug are prepared determines very materially the virulence of its irritating quality.

This is tentatively alluded to in the following passage, which occurs in Sir B. Brodie's *Lectures on Pathology and Surgery*. He there says:—"You may affect the system too much or too little, and you may be taken unawares by the patient's gums becoming all at once excessively sore."

Mr. Lee, when commenting on this, says:—"From observations and comparative experiments which I made during the years 1855-6, I feel satisfied that the irregular results noticed by Mr. Pearson and Sir Benjamin Brodie depended upon the difference in the chemical composition of the powder used for the purposes of fumigation, both before and after it was raised into a state of vapour. The grey oxide of mercury (the preparation generally used) varies much in colour as obtained at different shops." Speaking of mercurial fumigation, he goes on to state that "some specimens will not volatilise at the temperature produced by an ordinary spirit lamp under a metallic plate. Other specimens of a lighter colour volatilise quickly enough. When the darker specimens are sublimed, they are decomposed in a greater or less degree. A deutoxide of mercury is formed by the addition of an equivalent of the oxygen from the air, and if the temperature be much increased, then the oxygen is driven off altogether, and metallic mercury is sublimed. Under these circumstances, with a mercurial preparation of uncertain composition, and undergoing different changes, according to the degree of heat applied, there is no wonder

that very different effects should have been produced in different cases."

With some samples of the grey oxide it is necessary to use a considerable quantity of the powder in order to ensure any effect; with other samples a similar quantity produces much more action than is desirable. The grey colour of the powder depends upon the admixture of a certain proportion of calomel with the protoxide, and the temperature at which any particular specimen will volatilise will depend upon the relative proportions of the two. The bisulphuret of mercury, again, which has been extensively used for the purposes of fumigation, gives off, when exposed to heat, a vapour, probably the sulphurous acid gas, which has sometimes caused very considerable irritation of the lungs, and all forms of mercurial fumigation have, in consequence, by some been condemned."

The whole of these facts I can endorse, because for a long time I have observed the differences in the compositions and their influence on the organism. But I do not fully concur with the following solution of the difficulty:—"Now, all the inconveniences above mentioned may be avoided with certainty by using a mercurial preparation which is always of the same chemical composition, which does not irritate the lungs, and which is not liable to be altered by an increase of temperature. *Such a preparation is calomel.* We have here a definite chemical compound. It is altered in composition neither by heat nor by moisture."

I am quite of the opinion that calomel, or what is now called the subchloride of mercury, is an excellent form in which the metal may be administered, but I do not believe that all the evil consequences attending the administration of mercury are avoided by using the subchloride.

When this salt is prepared according to the pharmacopœia the product is likely to contain mercuric chloride, and is not

always sufficiently well washed to free it entirely from that salt. In addition to this, its extreme insolubility in water renders some special chemical change necessary in the organism which will allow it to be absorbed. In undergoing this change, I am disposed to conclude that a salt of a very irritating and destructive character is produced, to which we may attribute most of the evils which follow its reckless administration.

Always bearing in mind the view that mercury contains properties which materially interfere with its curative ones, I have found it advantageous to associate with it chlorate of potash at all times; and my opinion is, that it materially helps its solution in the body, and its excretion by the emunctories. By this means, the drug is long enough in the tissues to meet and neutralise the syphilitic virus, but does not remain sufficiently long, nor in such a form, as to produce the objectionable irritation.

I have found, also, that by thus freely blending it with the chlorate of potash, the curative influence of the drug is more speedily and more effectively brought into play. The sensations of the patient are more agreeable, and that malaise which many people feel on taking even very minute quantities of the drug, is not experienced.

Since I have adopted that rule in its administration, I have not seen those bad effects which formerly attracted my attention when using it. I cannot express my own view of the danger associated with the employment of mercury better than in the words of Mr. Paget:—"I believe that the worst thing syphilis can produce is produced with the help of mercury, when the latter is carried too far, or so given as to injure severely the system of the patient."

That the value of the chlorate of potash, as an adjunct, is not overrated by me, I may say that it has enabled me to use the mercurial drug where the patient's constitution was

eminently intolerant of it, which fact to me is conclusive of the value of the combination. With reference to the dose, I am of opinion that it should be left more to the discretion of the surgeon than to routine. Constitutions vary so much as to toleration of the drug, that the proper course is at all times to commence with one minimum dose, and then proceed in accordance with the circumstances of the case. As Ricord says—"There is no fixed dose which will influence all constitutions alike. If the patient gets better under a particular dose, let it be continued; if his improvement slackens, the dose should be augmented. As soon as the mouth is affected, the remedy must be diminished, and the chlorate of potash administered." He also says:—"The curative action of mercury is generally suspended from the moment the morbid symptoms which properly belong to this mineral begin to show themselves."

The value of chlorate of potash is recognised by both Mr. Acton and M. Ricord, the former gentleman affirming that it is truly a specific in the salivation stage, for, as he says, "we have it under full control." This is precisely what I have ascertained by careful experiment. We are, however, not told by him why it is so readily controlled. The fact, however, remains, that the chlorate of potash does, by virtue of some quality not yet absolutely demonstrable, destroy that property in the mercury to which I allude as essentially irritating, without any power whatever to cure.

It is not saying too much to affirm, that the discovery of chlorate of potash, as a corrective of the phenomena following the administration of mercury, known as salivation, is one of the most valuable connected with modern therapeutics. It also suggests the query, whether, during all the long period in which mercury has been in the hands of the profession, its power to produce ptyalism has been a correct measure of its curative or medicinal power.

Much as I estimate mercury as a drug, in syphilis at least, I should be much less disposed to use it than I am were I not able to neutralise its baneful qualities by the chlorate.* Ptyalism is not necessary in any sense, and may be discarded from the general indications.

The many methods of introducing mercury into the system which have been recommended, and which I formerly used, I have long since abandoned as unnecessary, and troublesome to the patient. Fumigation has no recommendations which can claim for it more than passing notice. Inunction, though so much practised by many surgeons, has equally few recommendations. It has been valued chiefly as a ready method of getting mercury into the system by absorption rather than by the stomach, under the impression that its influence would be less deleterious. It, however, develops precisely the same phenomena when absorbed as when given by the mouth, hence little or nothing is gained thereby.

My chief external method of applying mercury in secondaries is by a warm bath of 100 degrees Fahr., in which I place the perchloride of mercury and the muriate of ammonia. This composition also has been found to act with great promptitude, and to produce most satisfactory results. I have done away with all other baths, finding that this answers well to every stage in the disease where a bath is indicated.

With reference to the vexed question as to when mercury should be used in the several stages of syphilis, I am prepared to say that it is *par excellence* the only reliable remedy in every stage—*i.e.*, where the syphilitic diathesis is fairly pronounced. The soft sore is the first and simplest form in which it may make itself apparent, and is generally

* I have also found the chloride of sodium to be equally efficacious.

to be understood as but a feeble manifestation of the taint. It often is so slight as to pass away without any further indications of the presence of syphilis. My mode of dealing with it is to apply lint, saturated with a slight stimulating lotion, which generally suffices to heal it in a short time. There are, however, occasions when the soft sore passes on into the hard chancre, and it is not until I discern this decided tendency that I use mercury.

It has not occurred in my practice that the common sore has produced the suppurating bubo, and very seldom the simple one, when care has been taken to keep the sore clean, and to stimulate the healing process as above recommended. I am free to confess that there have been cases whose constitutional symptoms have followed the simple sore, but this has happened where the taint has been decided, and where the constitution of the patient has not been favourable to the formation of the indurated ulcer.

There are, I know, surgeons who believe that the constitution is fully saturated with the syphilitic poison before its presence is made known by the indurated chancre. With this view I do not concur. My opinion is, that very often the poison is readily absorbed, but the soft sore is present at the same time. The hard chancre is an indication of the resistance the system, or at any rate the tissues of the penis, present to the introduction of the poison.

It is generally found that the simple sore is somewhat indolent and deep; hence the propriety of using stimulating lotions to promote granulation, and maintain a healthy tendency to fill up and heal. Professor Fergusson, of King's College Hospital, treats the common soft sore with plain water on a bit of lint, and attention to the general health. My own experience has clearly demonstrated to me that there is an advantage in using a stimulating lotion.

With reference to phagedena, my observation has resulted

in the opinion that it is not always syphilitic. The great surgeon just mentioned says: — "I do not think phagedena is syphilis. I consider that it follows a virulent inflammation, and in some cases it is doubtful whether there has been any syphilis at all." And again—"I have not seen syphilis follow phagedena." Its greater prevalence formerly is supposed to have been owing to the too free use of mercury. Amongst the number of those who think so is to be found Professor Syme, who says "there was more phagedena when mercury was more in use." The inference from these observations is, that mercury has the dangerous property of inducing the phagedenic ulcer. I am inclined to allow that it does, when improperly used, induce a phagedenic ulcer when otherwise there would not have been one. The treatment which I adopt is non-mercurial, and I pay especial attention to the character of the diet, which must in these cases be substantial and nutritive.

Much has been said about the probability of syphilis wearing itself out without medication, and that it is no advantage to submit it to the medicines usually adopted. I have had especial opportunities for observing the phenomena under such circumstances. There have been many occasions on which the patient has been resident for a long time in what is termed "the bush," and has contracted a chancre. He has had no opportunity of obtaining medicine; or, if any, only some simple drug, such as might be within reach for ordinary ailments.

The chancre has in these cases to which I refer generally been of a most aggravated character, and the induration has remained after the disappearance of the sore. The secondary stage appears, from the history of the cases, to have been prompt in following the chancre, and when the patients have reached me, I have more than once discovered both the secondary and tertiary phenomena in their most aggravated

form. This will, doubtless, appear to those who believe in the non-intervention theory a rather startling announcement; nevertheless, such cases are by no means uncommon, and apparently indicate that without mercury to assist it syphilis may be extremely formidable in its independent phenomena.

Referring to the induration which remained after the sore had healed, I have never found such to be the case where mercury has been properly administered. This is one of the facts which sustains the opinion that mercury is the only drug to be relied upon in the treatment of syphilis, and endorses the opinion of Mr. Lane, surgeon to the London Lock Hospital, that "mercury is the principal means for eliminating the poison."

Much is said by reputed syphilidographers, and many general practitioners, about the virtues of the iodide of potassium as an anti-syphilitic, and it has in many quarters been fully relied upon, to the exclusion of the more powerful drug. There are, it is true, an equal number who have scarcely any faith in it. Much disappointment has been felt at the unsatisfactory results which in many cases have followed its administration. Dr. Busk, of the "Dreadnought," or seamen's hospital, on the Thames, who has had extensive opportunities of noticing its influence, states that "he never noticed any beneficial effects from the iodide, save for nodes and periostitis."

Against the latter portion of this sentence I have to place the fact, that in nodes I have not found it so reliable. Cases have come under my cognisance—and one is now under treatment—where the iodide has completely failed in dispersing the nodes. The present case referred to is a singularly illustrative one, inasmuch as the patient, who is a lady of position, tainted by her husband, had been taking iodide of potassium for nearly twelve months without

any improvement. I gave her the perchloride of mercury, ammonia, and bark, with such satisfactory results, that the nodes by the fourth day were materially lessened, and in a very short time disappeared altogether. This case, and others of an analogous character, warrant the conclusion of Langston Parker, that "iodide of potash has been much over-rated." Mr. Erichsen, however, of University College, London, is of opinion that "it is exceedingly beneficial in some of the secondary forms, especially in affections of the bones and the periosteum."

Against such high authority I have to place my own experience, that it does not bear any comparison with mercury as a remedy against syphilitic phenomena, nor is there any stage where it can be justly called a substitute. Mercury, in proper combination, is a never-failing remedy for all constitutional disturbance, no matter what phase the disease may take. I am convinced, with Mr. Savory and others, that "there is no remedy which exercises so marked and potent an influence as mercury in controlling and counteracting the effects of syphilis."

If iodide of potassium succeeds—as some say it does—after mercury has failed, it will be found that mercury has not been judiciously employed. In prescribing iodide of potassium, iodism can be prevented by combining it with the carbonate of ammonia.

The examples of syphilitic progress without any medication whatever, which I have witnessed in men who have spent their time on the plains of the colony tending sheep, afford conclusive evidence that syphilis will, under favourable circumstances, exhibit its successive changes of primary, secondary, and tertiary phenomena, and in the most virulent form. Patients have reached town from the interior who have had no opportunity whatever for mercurial medication, and who had taken nothing but vegetable simples; still

they were in the most deplorable state, with extensive ulceration of the buccal cavity, and disease of the skin. In addition, there were condylomata at the anus, the corners of the mouth and the axilla, as well as on the penis.

This state of things had existed for nearly two years, with its several transformations; and gave palpable evidence of an ultimate destruction of tissue, which would seriously have disfigured the patient, if it had not destroyed life. It may be true that, as a general rule, syphilis passes through its first two stages in the majority of cases with a certain amount of regularity, and then remains latent and unobserved for years, and probably for a lifetime; but it is certain that it sometimes, when favourable circumstances accompany it, proceeds unchecked in its ravages, and never recedes into the latent condition.

Inferentially, Mr. Jonathan Hutchinson, of the London Metropolitan Free Hospital, is of the same opinion. He says:—"I am quite certain that the secondary and tertiary stages cannot be referable to mercury. They then may be produced by the disease itself, and the instances to which I refer are, to me, conclusive that such is the case." Mr. Solly, senior surgeon to St. Thomas's Hospital, affirms that he "does not think diseases of the bones are produced by mercury." There are several eminent authorities amongst the now numerous syphilidographers who admit, directly or inferentially, that mercury is unduly saddled with being the sole cause of secondary and tertiary phenomena.

I am fully convinced that they are right, and have no hesitation in adding my testimony to the value of mercury as the primary remedy in syphilis; also that the dangerous secondary and tertiary stages are not justly attributable to it, but belong to the history of the disease itself.

From a long and careful study of syphilis in its varied phases, in military and civil hospitals, in lock hospitals, and

in private practice, I am convinced that in the treatment of the disease in its primary, secondary, and tertiary stages, there is no known remedy in the *Materia Medica* on which so much reliance can be placed as mercury and its compounds; but there is no drug which requires in its administration so much skill and discrimination. It is a remedy which is powerful for evil as for good, according to the wisdom of the practitioner; and it is only under the guidance of the watchful and learned physician that it is enabled to assert its superiority over all other agents. It will ere long be universally accepted by the profession as the remedy *par excellence* in the eradicative treatment of this most destructive disease.

In prescribing it, attention should be directed to the constitution, habits, temperament, and idiosyncracy of the patient, together with the previous treatment, if any. Each case will then become a special subject of investigation, study, and treatment.

All routineism must be abandoned if success is to follow our efforts, and each case must be considered as a distinct individuality, mercury always being the base of our therapeutic operations. Wherever we administer it in combination, it is only that the system of the patient may be more tolerant of the principal drug, through the instrumentality of its associated medicines.

The combinations in general use are the red iodide and the green iodide of mercury, and the triple solution of arsenic, iodine, and mercury (known as Donovan's). The perchloride of mercury is the chief form in which I administer the drug; but even this requires discrimination, and an intimacy with its therapeutic effects, in order to prevent the secretions from being unduly influenced. It is an agent of great value when properly administered. When an indurated chancre appears in an otherwise healthy person, perchloride of

mercury, with hydrochlorate of ammonia, should be at once given, and its effects carefully watched. Should mercurial fœtor or submaxillary tenderness supervene, the hydrochlorate of ammonia must give place to chlorate of potash and hydrochloric acid. Should the patient be in delicate health, the tincture of cinchona, or Battley's liquor of the same, may be added.

In secondaries, mercury is our sheet-anchor when administered in relation to the health and constitution of the patient. In cases of secondaries with well-marked symptoms of mercurial cachexia, I should rely upon the iodide of potassium, combined with bark, until this condition was overcome. Should there be great debility, with an anæmic state of the body, the citrate of iron and carbonate of ammonia may be advantageously combined with the iodide. This treatment will, however, have little curative influence on the syphilitic virus, but tends to relieve the system of the injurious operation of a drug which, although eminently useful when properly administered, may have lowered the vitality of the body, and established a dangerous cachexia.

It will frequently be found that where iodide of potassium has been successful, an incautious administration of mercury previously has brought about a cachectic state of the body. In a case of paralysis, with considerable dementia, reported at page 100 of this work, the patient had taken enormous quantities of the iodide of potassium without the slightest amelioration of the symptoms; but by a careful continuation of mercury, with other agents, I succeeded in keeping him under its influence for six months, without the slightest symptom of ptyalism, or even tenderness of the submaxillary glands. He was completely restored to health by these means, and during the entire course of treatment there was no inconvenience whatever from the excessive influence of the drug.

In the treatment of tertiaries, it will be necessary to consider—1st, the patient's general state of health ; 2nd, whether he is plethoric or anæmic ; 3rd, whether he has been under treatment before ; 4th, what medicines have been taken, with what effects upon the system, and with what results. The common supposition, that tertiaries ought not to be treated with mercury, is one of the many errors which have environed the therapeutics of this disease. I invariably use it, and with the best results. Indeed, I can see no possibility of ensuring a positive and lasting cure of this disease without mercury. I must express my dissent from Mr. Samuel Armstrong Lane, surgeon to the Lock Hospital, where he says : —"In the tertiary stage, I do not admit that any poison remains in the system. It is the state of the system left after the poison has been through it, and damaged the tissues and textures, and probably the blood itself." This is as vague as his statement that "mercury is nothing more than an excitant." In the tertiary stage, the excitement to which he refers is thought by many to be not fully eliminated from the system. Thus the terrible phenomena of the tertiary stage are attributable to two different causes. In the one, they are purely mercurialism ; in the other, they are the *sequelæ* alone of the syphilitic taint. I have shown elsewhere that they are not necessarily the product of mercurial treatment, but that they appear where it has never been given. I have shown that they are amenable to precisely the same kind of treatment that serves so well in the primary and secondary states.

Mercury is in them the basis of treatment, only modified in its quantity and combinations according to the constitution and general state of health of the patient. Mercury is still the sheet anchor. There is no difficulty in the administration of the drug for any length of time, if given in judicious combination with iodine or chlorine. I now have a patient

who came to me with tertiaries of a very serious character, and who now, after taking the perchloride of mercury, chlorate of potash, and hydrochloric acid, for seven months, is almost perfectly cured. During all this time there has not been any approach whatever to ptyalism, nor any symptom of mercurial irritation. Mercury could in this way be given for any length of time without fear of constitutional disturbance.

No attempt has yet been made, of a satisfactory nature, to account for the singular influence which certain drugs have, in so controlling the operation of mercury over the animal organism. It is one of the triumphs of medical science that such a discovery has been made, by which the long-dreaded baneful effects of the powerful drug have been controlled. Now it is as completely under the mastery of the physician as steam is under that of the engineer. We can utilise its beneficial medicinal qualities, without the process being marred by the activity of its more irritating and corroding qualities.

It is interesting to inquire into the *rationale* of this valuable influence which certain medicines exercise over mercury when in combination with it. Iodine and chlorate of potash are the chief agents in this important modification of its effects upon the organism, and deserve especial notice. Those of us in the profession who have adopted the practice of administering them with mercury, have discovered by experience that they are invaluable in this sense, and find that the efficiency and safety of mercurial medication is only under these circumstances fully secured. To me, the solution of the *modus operandi* has long been a desideratum, and the only feasible one that presents itself is found in the special function of the iodine and chlorate of potash themselves. These drugs manifestly have the property of influencing the glandular system more particularly. They

stimulate and augment glandular action, and thus render important aid in preventing the lodgement of the mercurial atoms therein. The glandular system is primarily amenable to the mercurial drug poison, and it is with great difficulty that the glands can eliminate it and dispose of it; hence it often remains there as an irritant. The function or property of iodine and the other drugs is to increase glandular activity, and cause the mercurial atoms to reach the emunctories before they have had time to remain sufficiently long in the tissues and blood current to set up that vicarious process known as salivation, and which is the visible expression of constitutional changes, having for their end the elimination of the irritant drug.

Iodine probably plays the most important part in this useful combination, although there are instances where, from constitutional peculiarities, the chlorate of potash is more effective. Another combination of chlorine possesses a similar property—viz., the chloride of sodium, or common salt, which, when administered in full doses with the drug, causes its rapid elimination before ptyalism sets in.

The result, therefore, of the experience that I have gained during the last twenty years is this: that syphilis is a distinct and specific disease, which is the consequence of impure coït with an impure woman, and may be communicated by man in all its stages. That its phenomena are of a special character, differing in expression from all other lesions, and governed by laws which are distinct from those regulating other diseases. Taking it as a whole, in all its aspects, it has no analogue; hence it stands out prominently as a specific disease.

It is said by many to present anomalous conditions which give it the characteristic of duality; but although the soft and phagedenic sores exhibit features which differ in some degree from those of the Hunterian chancre and the

several secondary lesions, still I am of opinion that they belong to the syphilitic category, and are capable of passing occasionally into the more pronounced forms of the disease. That they are amenable to a simpler treatment is no datum on which to found the hypothesis of a distinct disease.

I am of opinion that the germs which produce the soft and phagedenic sore are less developed, and by no means so virulent, but the same in essence, and, being of inferior organisation, are not so prone to multiplication in the organism as the more matured and more virulent germs. It is well known that phagedena is eminently contagious, and is communicated rapidly from patient to patient in the wards of the hospitals; attacking every description of wound, and producing alarming activity in the ulcerative processes going on. It renews itself, and communicates its special force to the tissues of the periphery adjoining its *locale*, but it does not appear to enter the system and produce the reflex injury which the more matured germs create.

It is nevertheless amenable to mercurial treatment, if judiciously applied, as well as the more advanced stages of the disease. Its great and leading characteristic is, that it is local and not constitutional, and may be at once destroyed by nitric acid. Where, however, constitutional cachexia exists, or an unusual receptivity for the absorption of morbid elements, it then assumes another type by transformation.

Whatever phase syphilis may assume, mercury in some form or other is its specific. The *materia medica* contains no other, but at the same time it is a dangerous and destructive agent used singly or injudiciously. It must be given in combination with those medicines which have the property of causing it to be eliminated rapidly from the system, and under such conditions it then becomes a valuable specific, being perfectly under control. The statement of Erasmus

Wilson is true, that "mercury loses its power when we lose control over it." Hence the necessity of using those substances which will enable us to command it.

I have a patient under my care who has taken mercury, according to the formula which I now subjoin,* for eight months. During this time his appetite has improved, he has gained flesh, he has never suffered from sore throat, neither has his breath been offensive, and he is cured of one of the worst forms of secondary syphilitic disease it has ever fallen to my lot to treat.

* ℞. Hydrarg Perchlorid, gr. iij.
Potass Chlorat, ʒ ij.
Acid Hydrochlor Dilut, ʒ iv.
Sodii Chlorid, ʒ ij.
Tinct Cardam Comp, ʒ ij.
Aq Destillat, ad ℥ viij.
Misce fiat mist. Sumat ʒ iv. ter quotidie.

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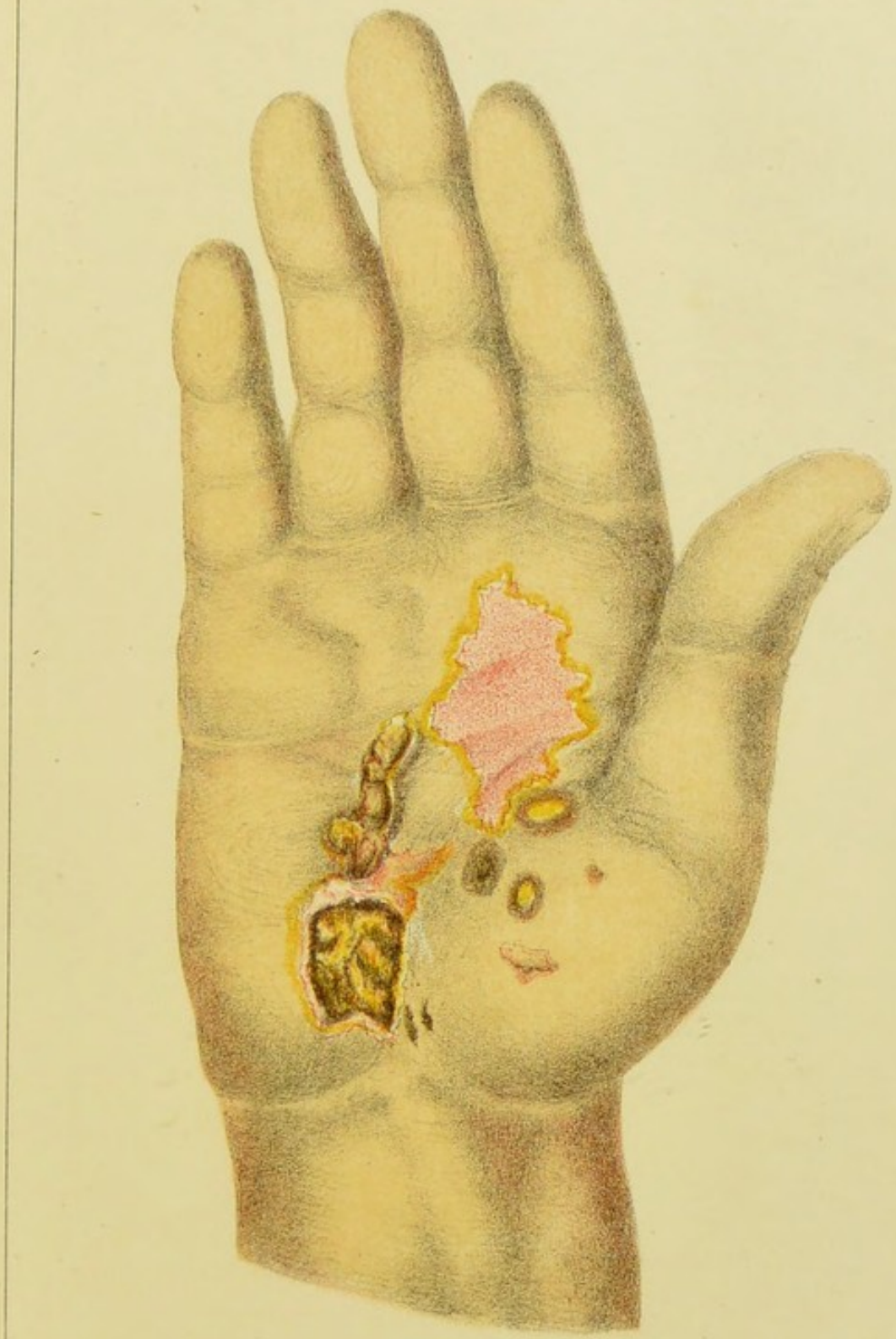

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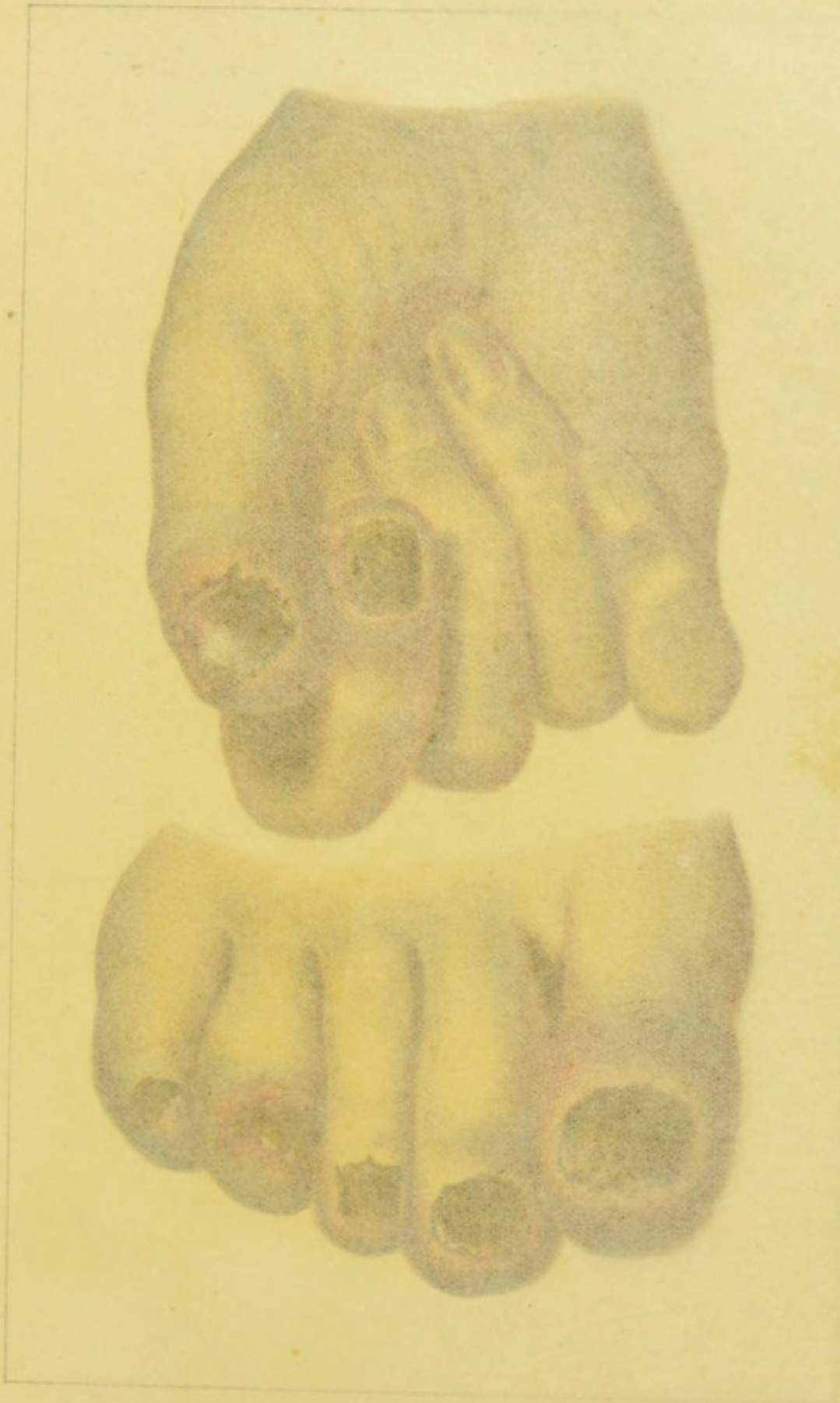

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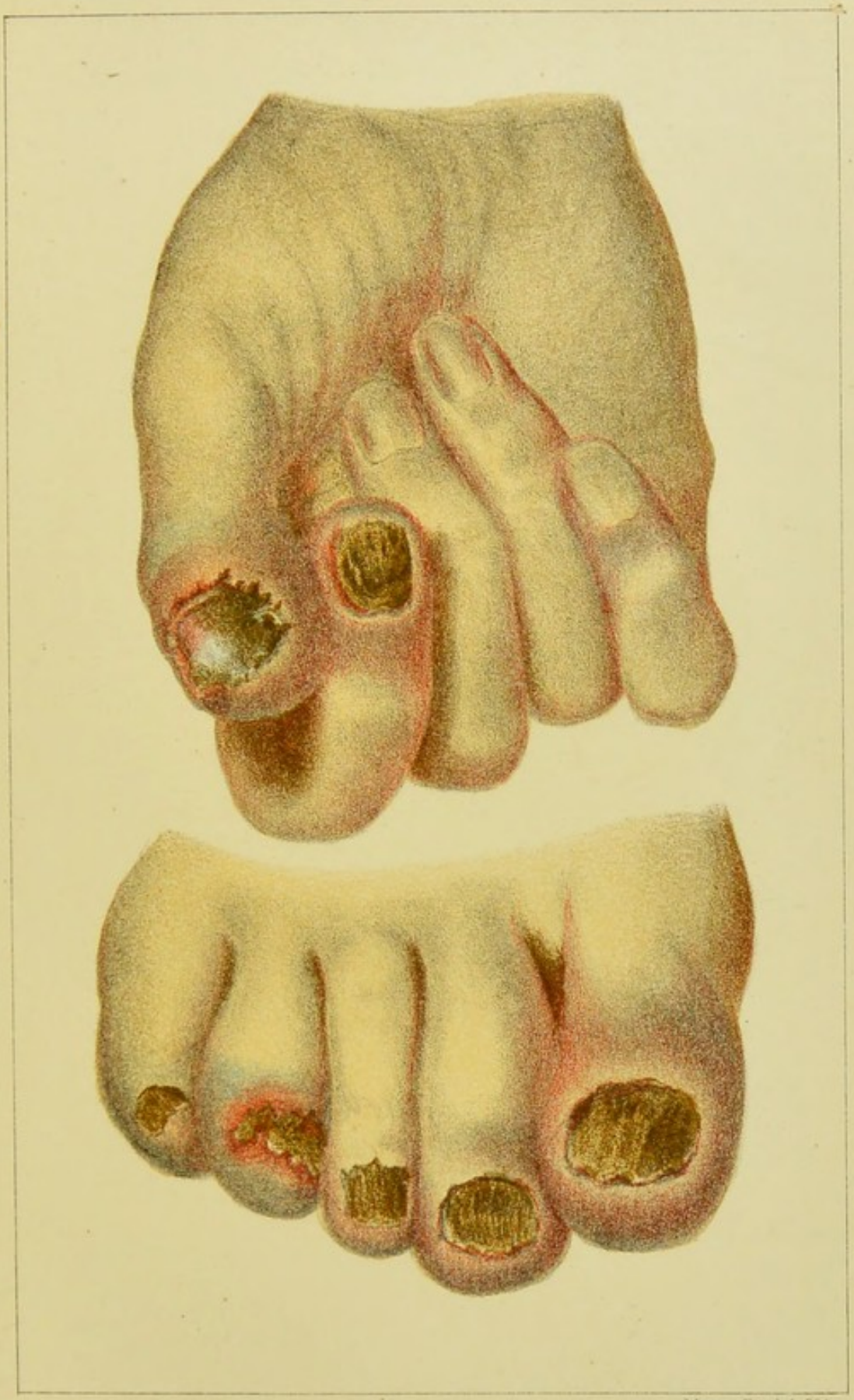

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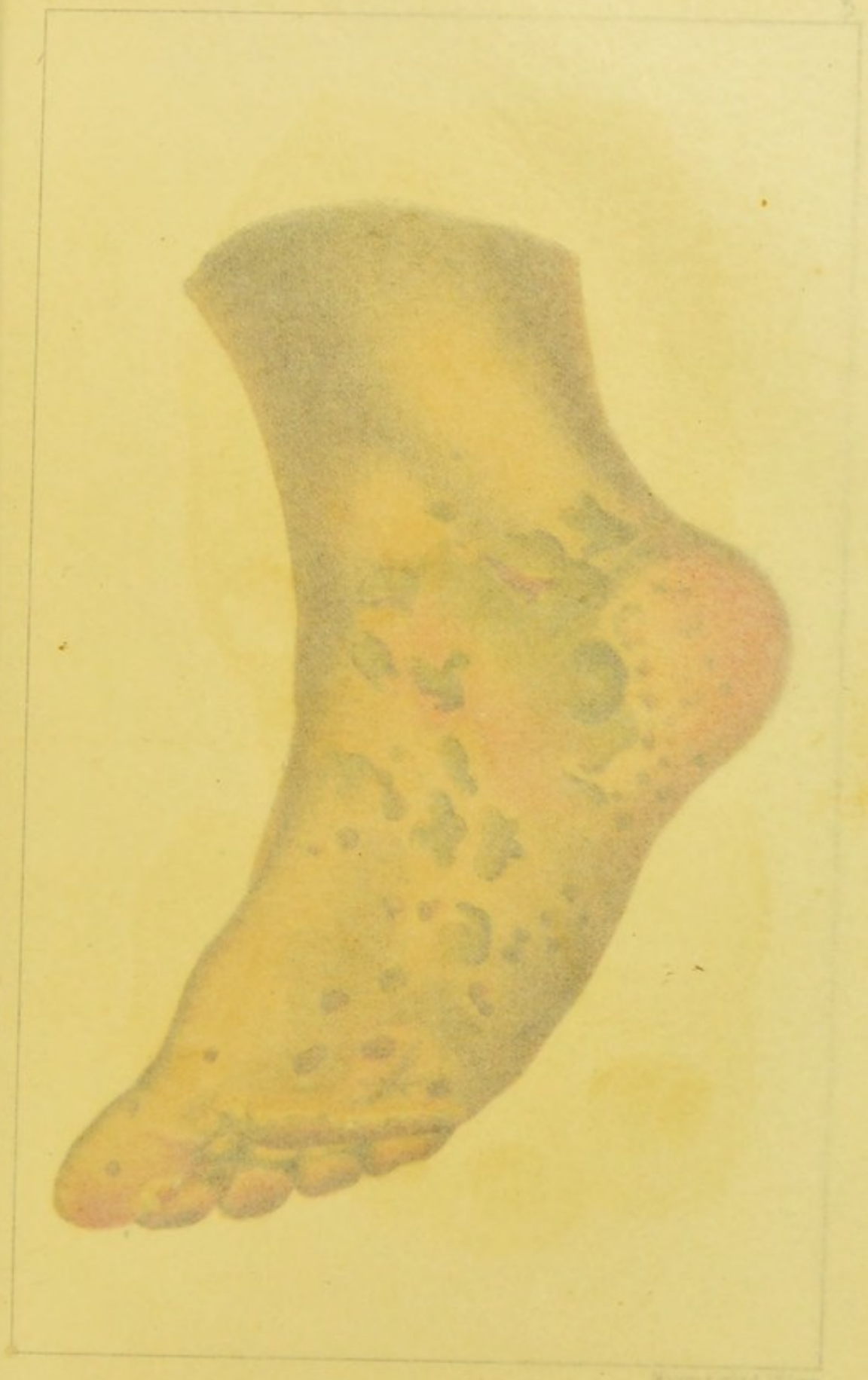

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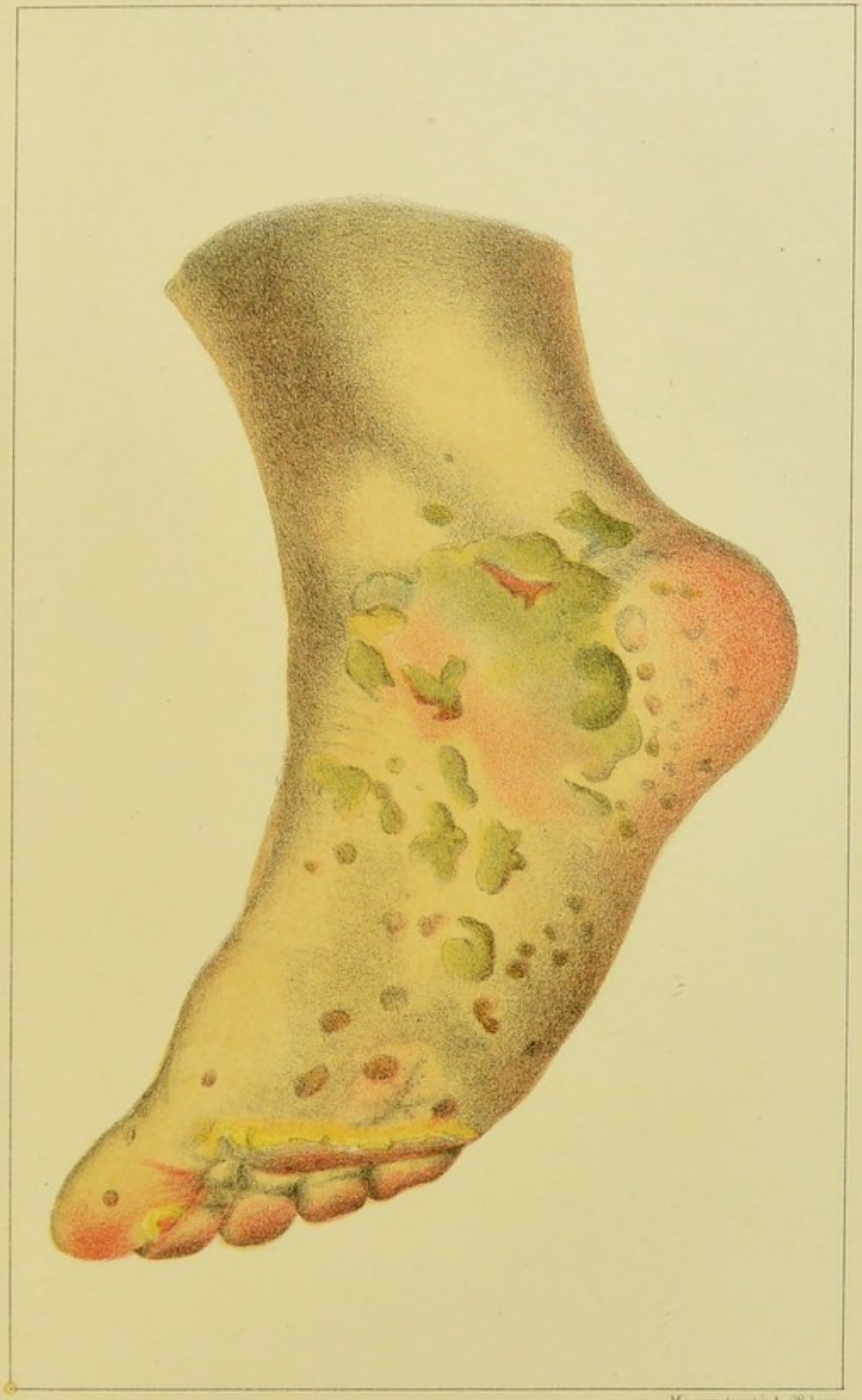

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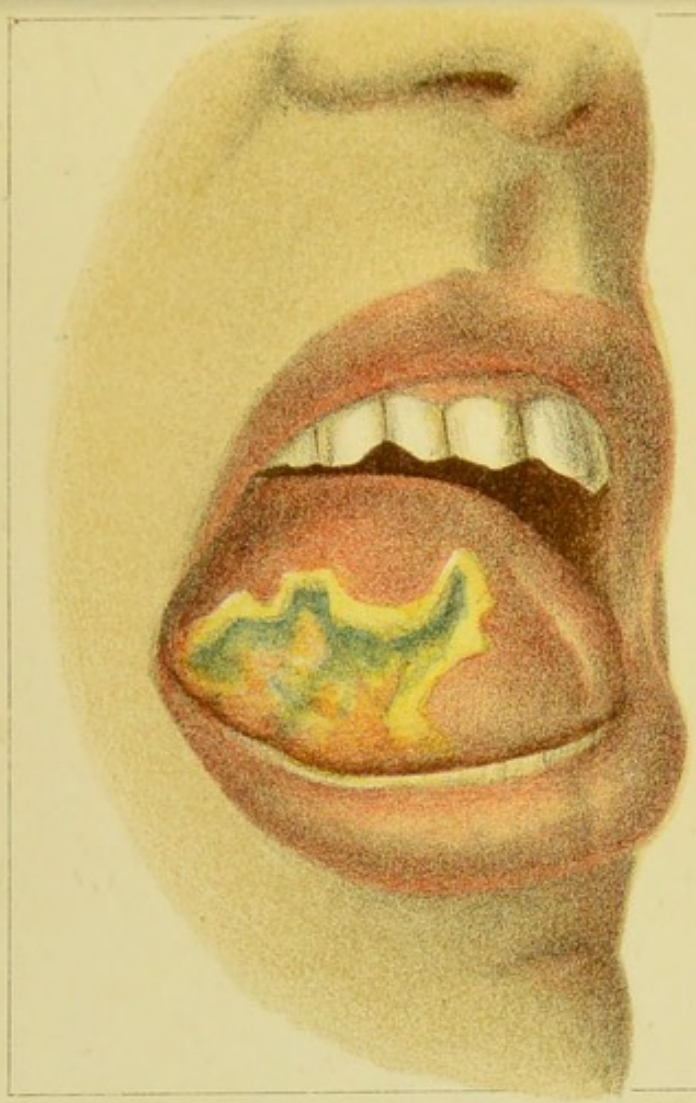

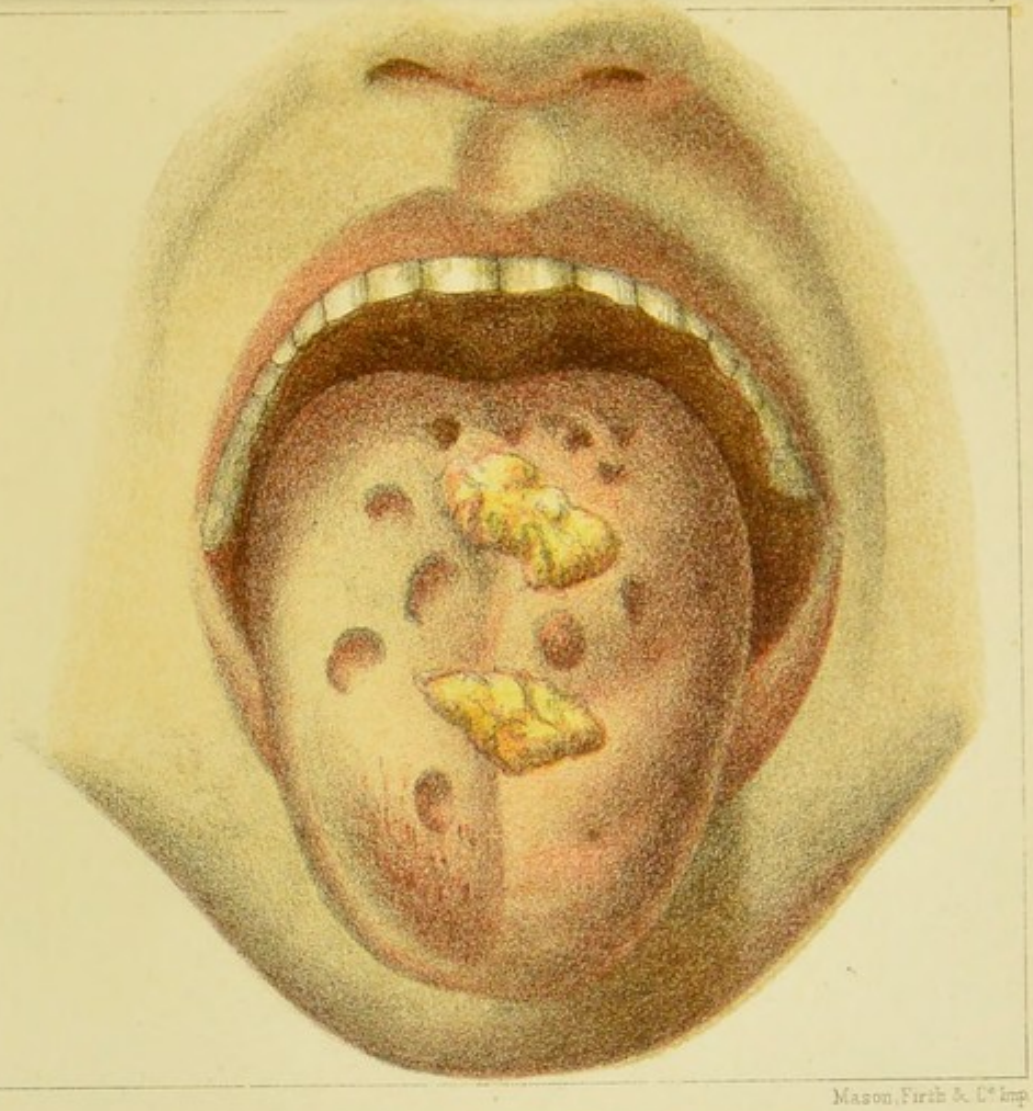

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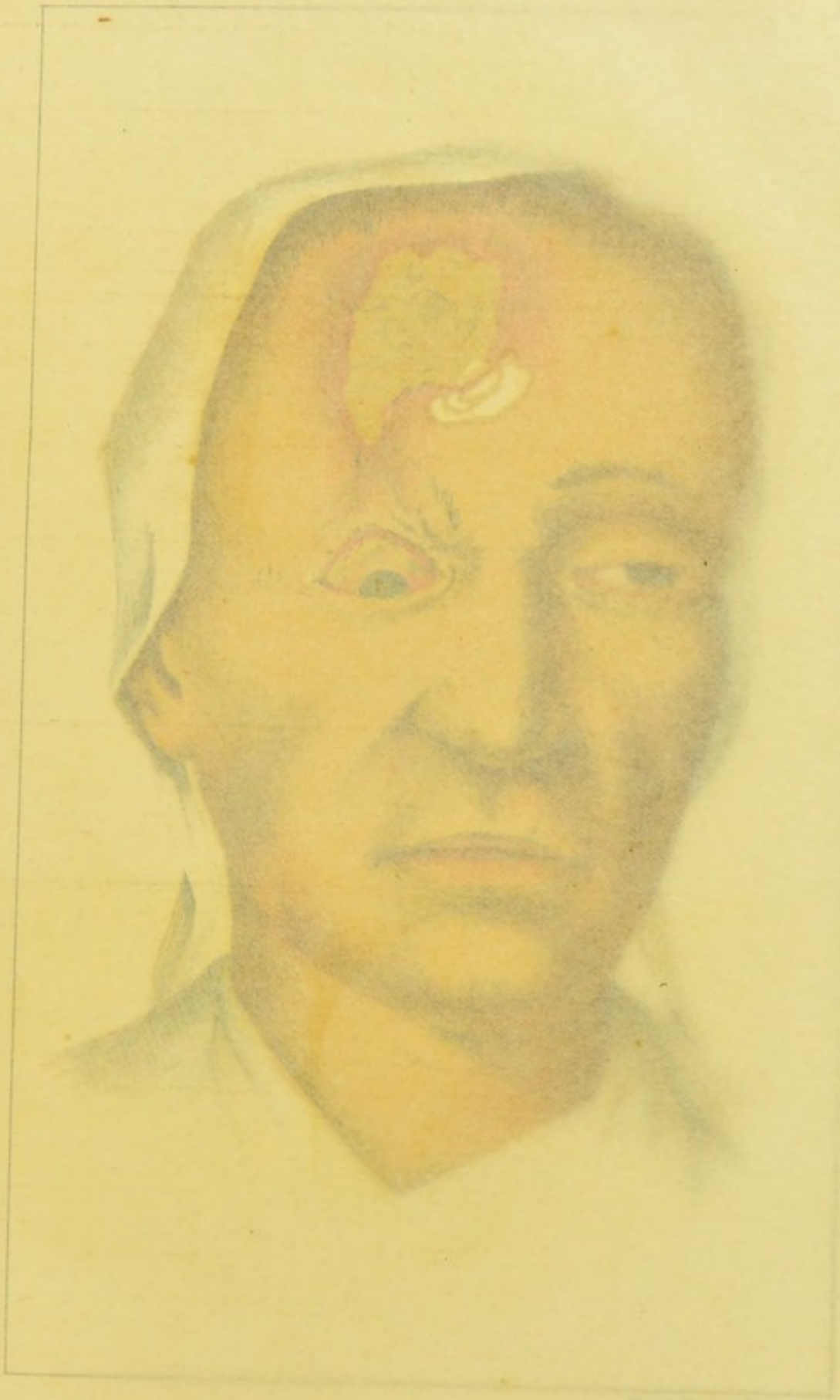

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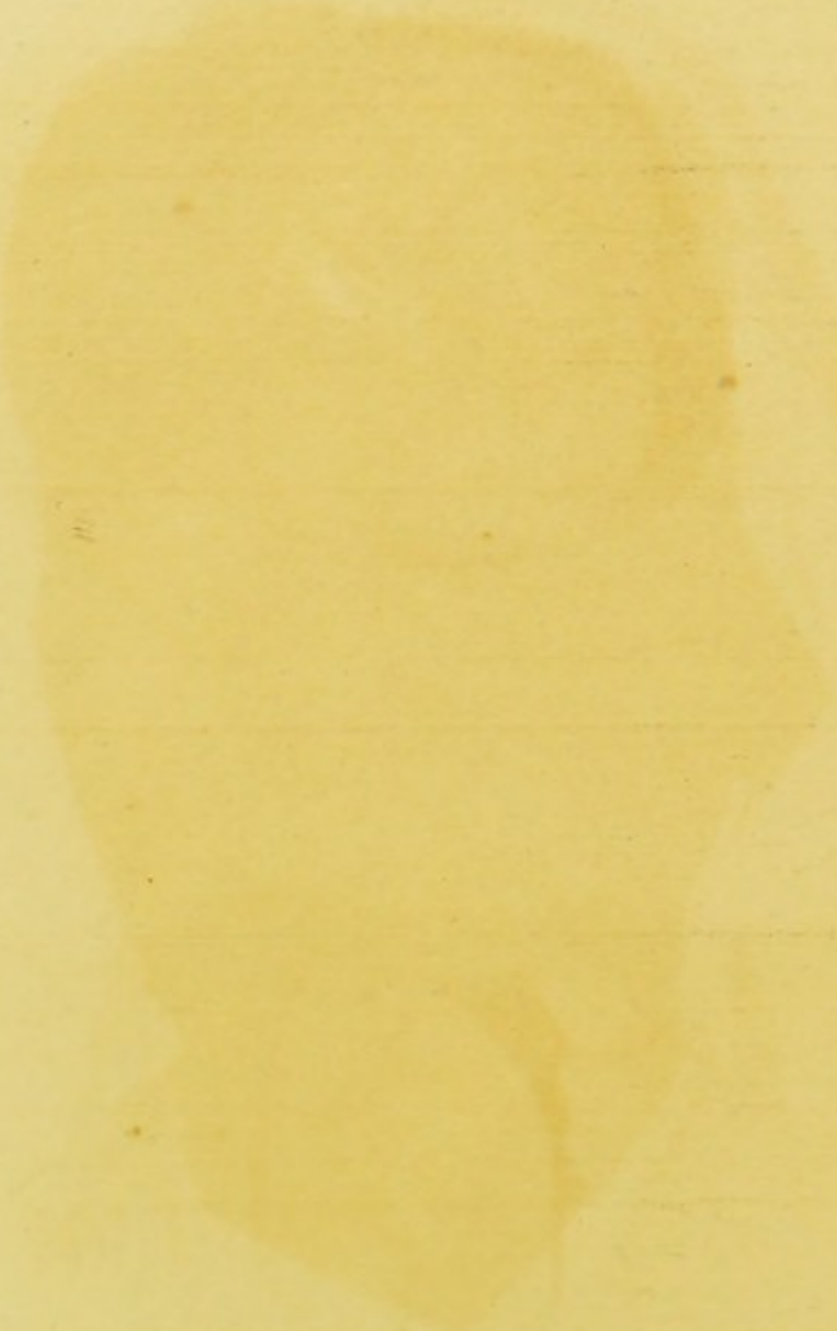

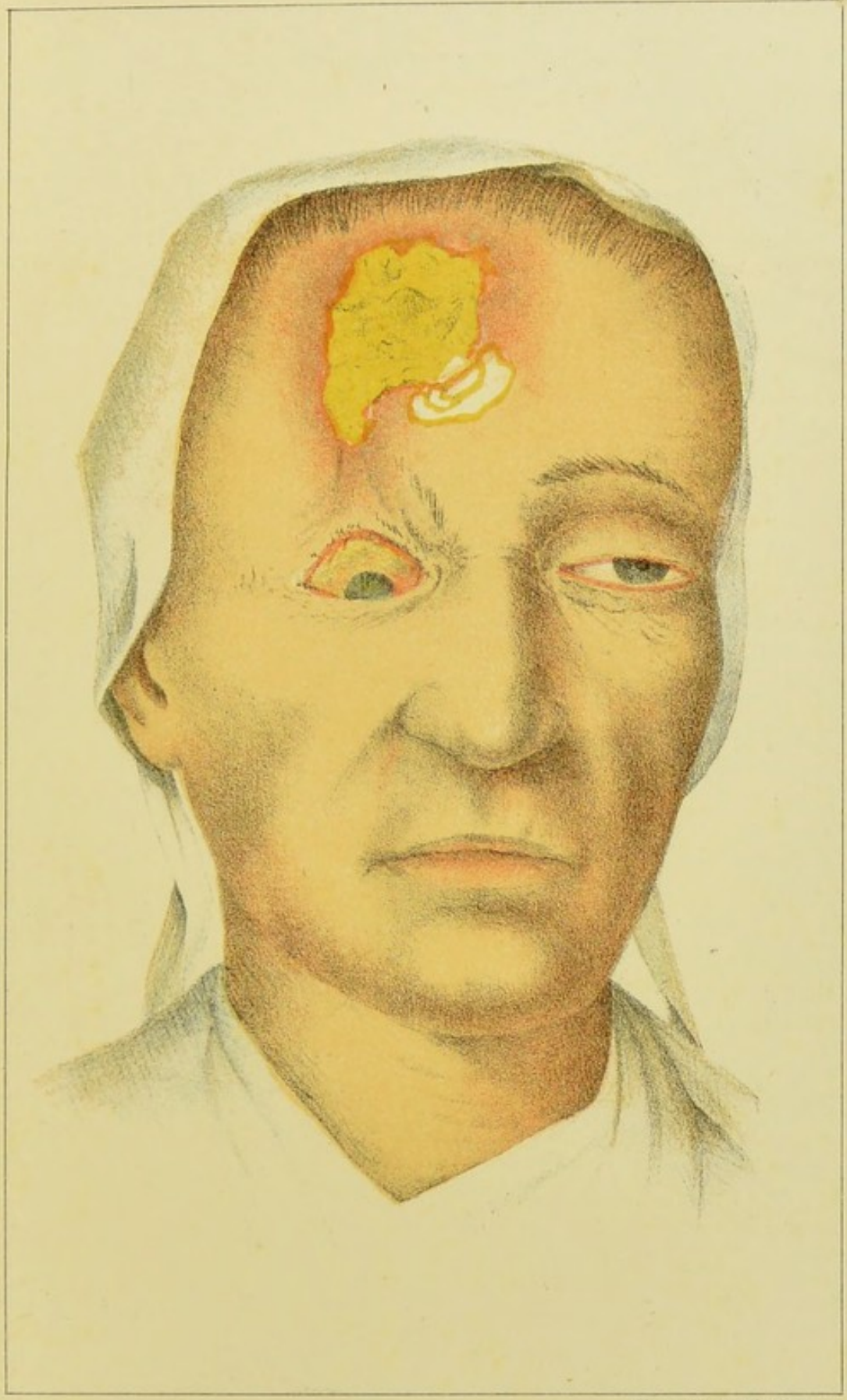

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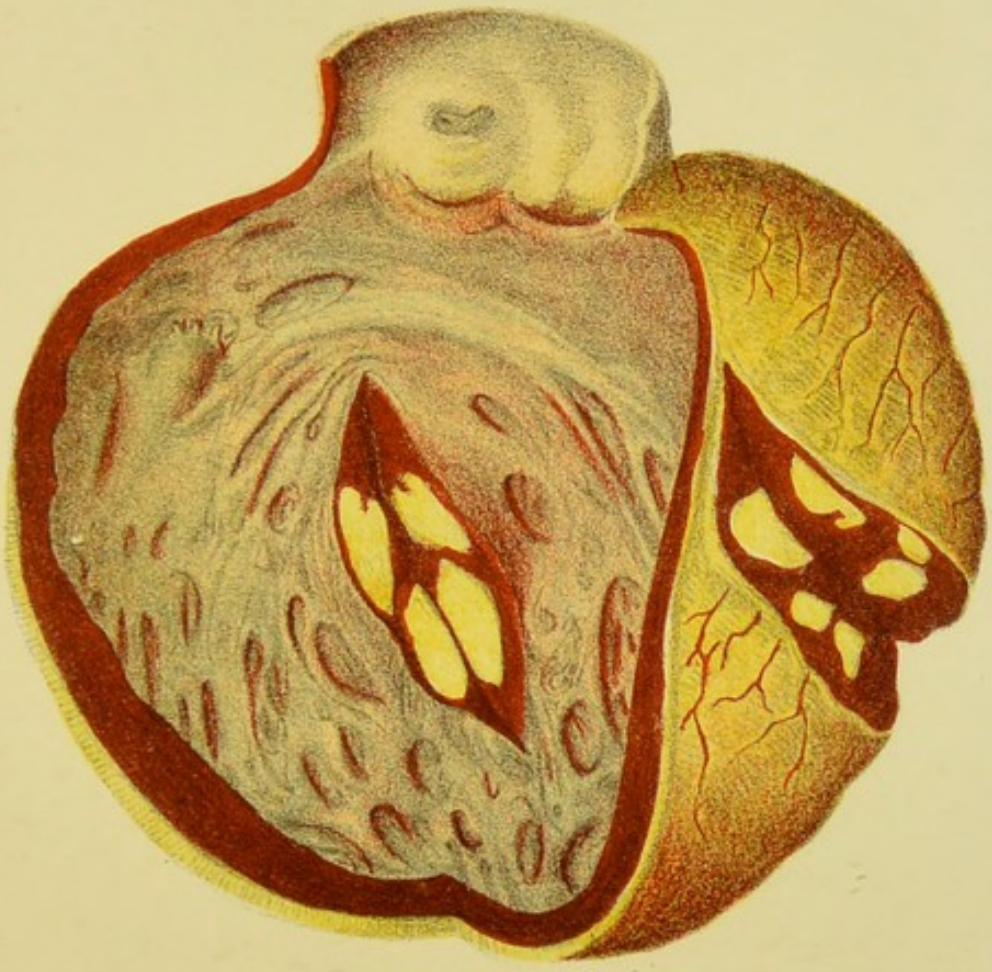
Tertiary Syphilis

Tubercular plastic degeneration of Muscular tissue of the heart



Mason, Firth & Co.ᵉ Imp.

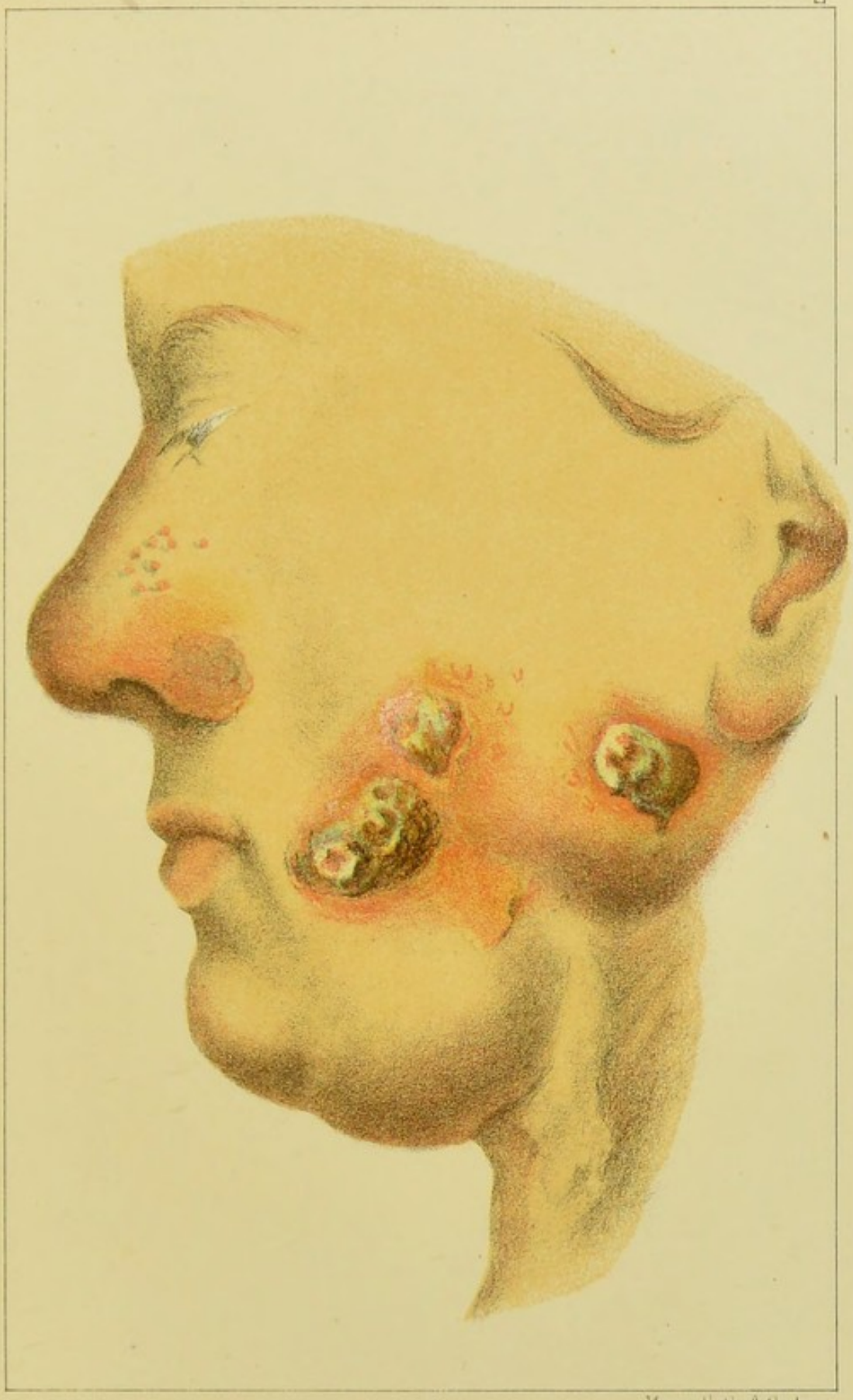
Tertiary Syphilis

Tubercular plastic degeneration of Muscular tissue of the Heart

Mason.Firth & Cº Imp

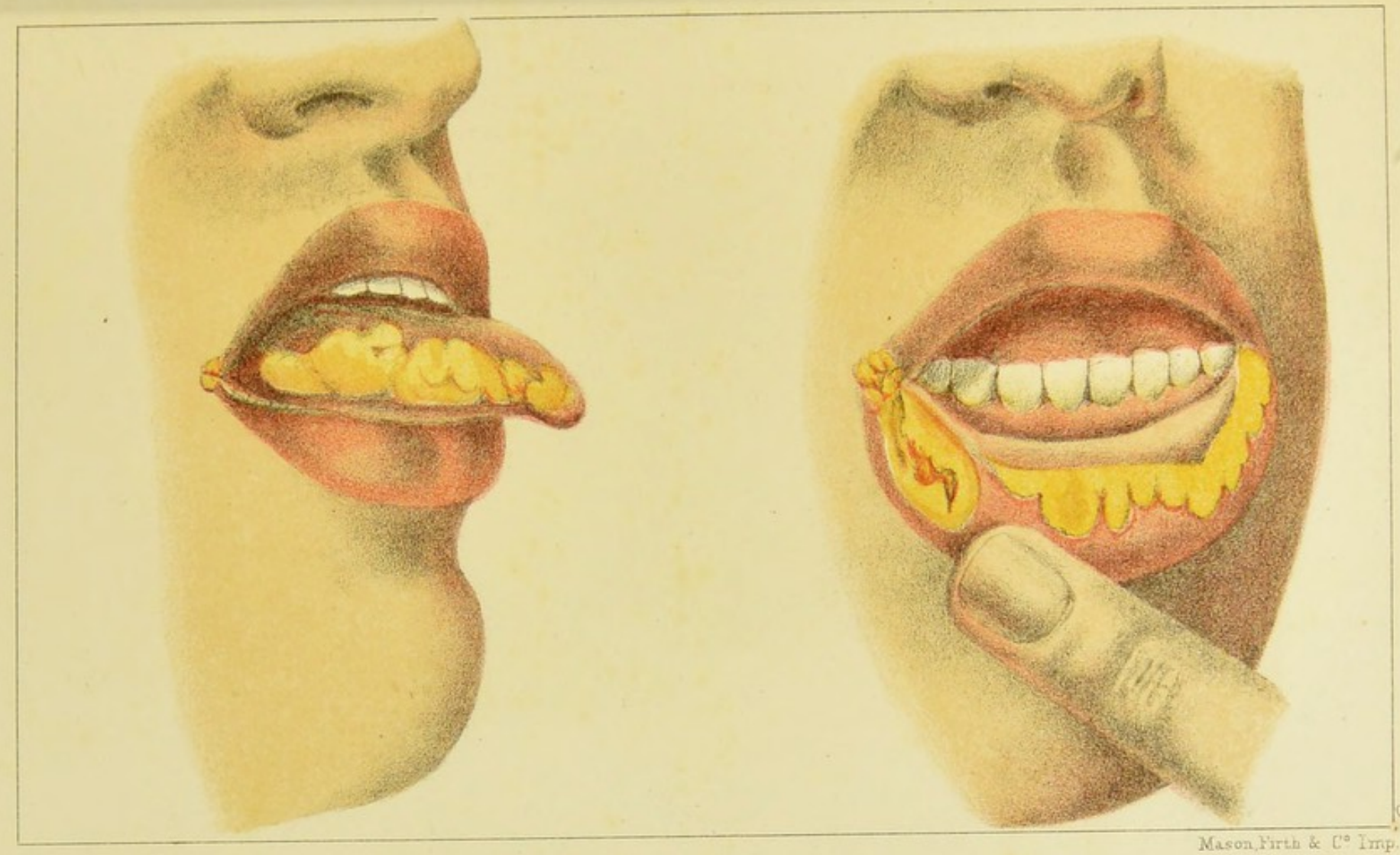
Venereal disease of the Liver

Tertiary Tubercular Syphilide (punctular)



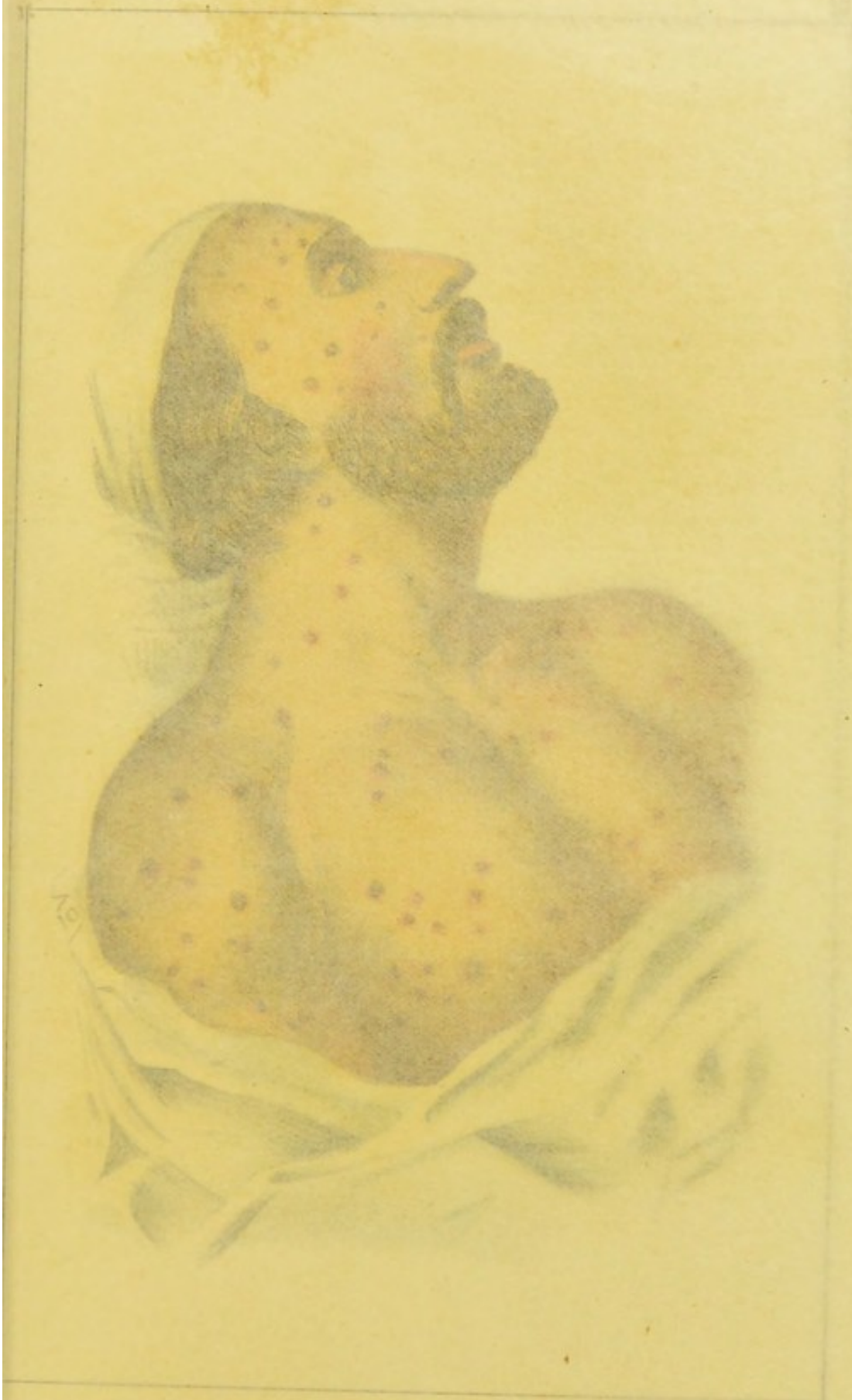
Mason, Firth & Co. Imp.

Tertiary Tubercular Syphilide (pustular).

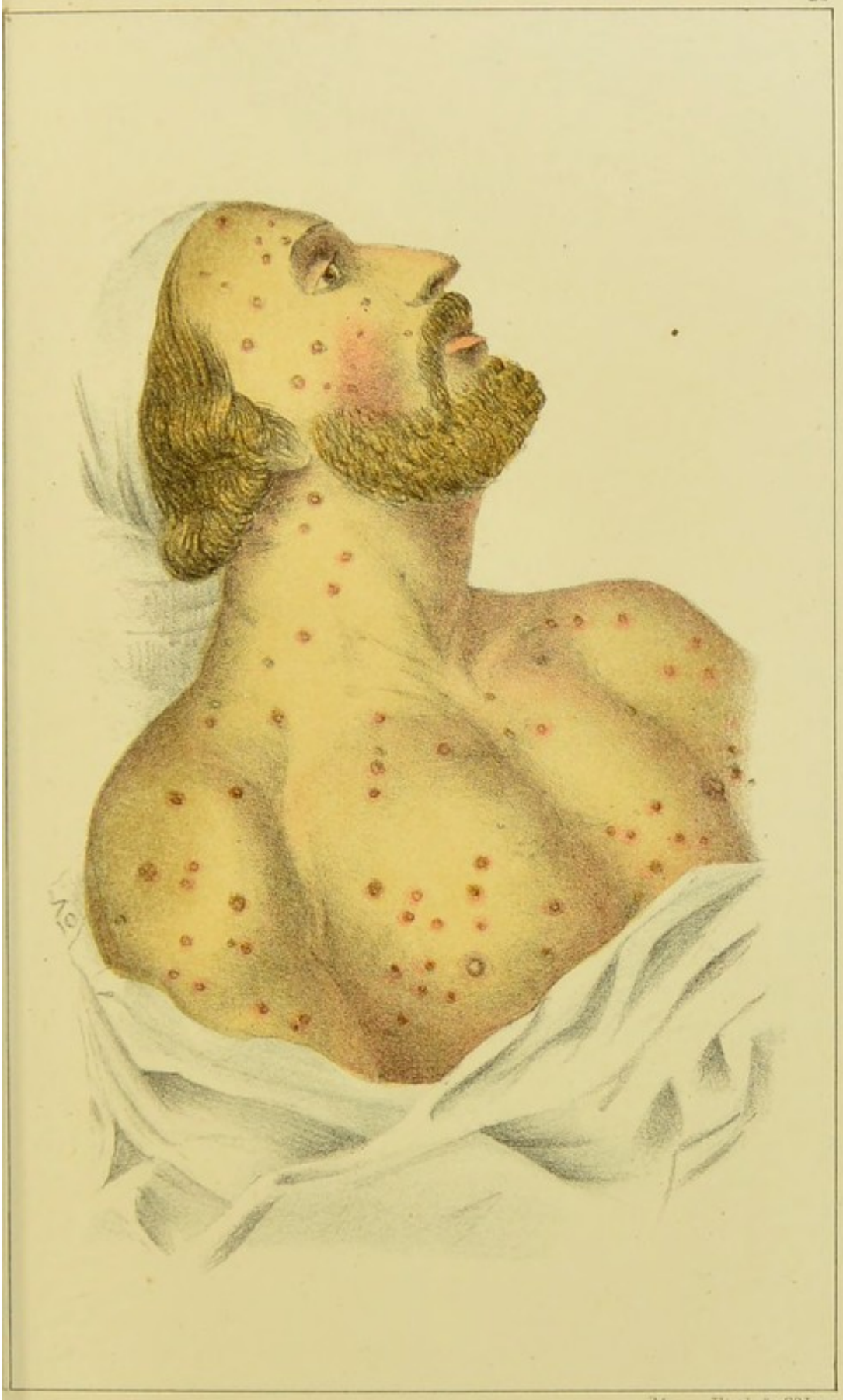


Mason, Firth & C° Imp.

Secondary Syphilitic ulceration of the Mouth & Tongue.



Secondary Veticular Syphilide

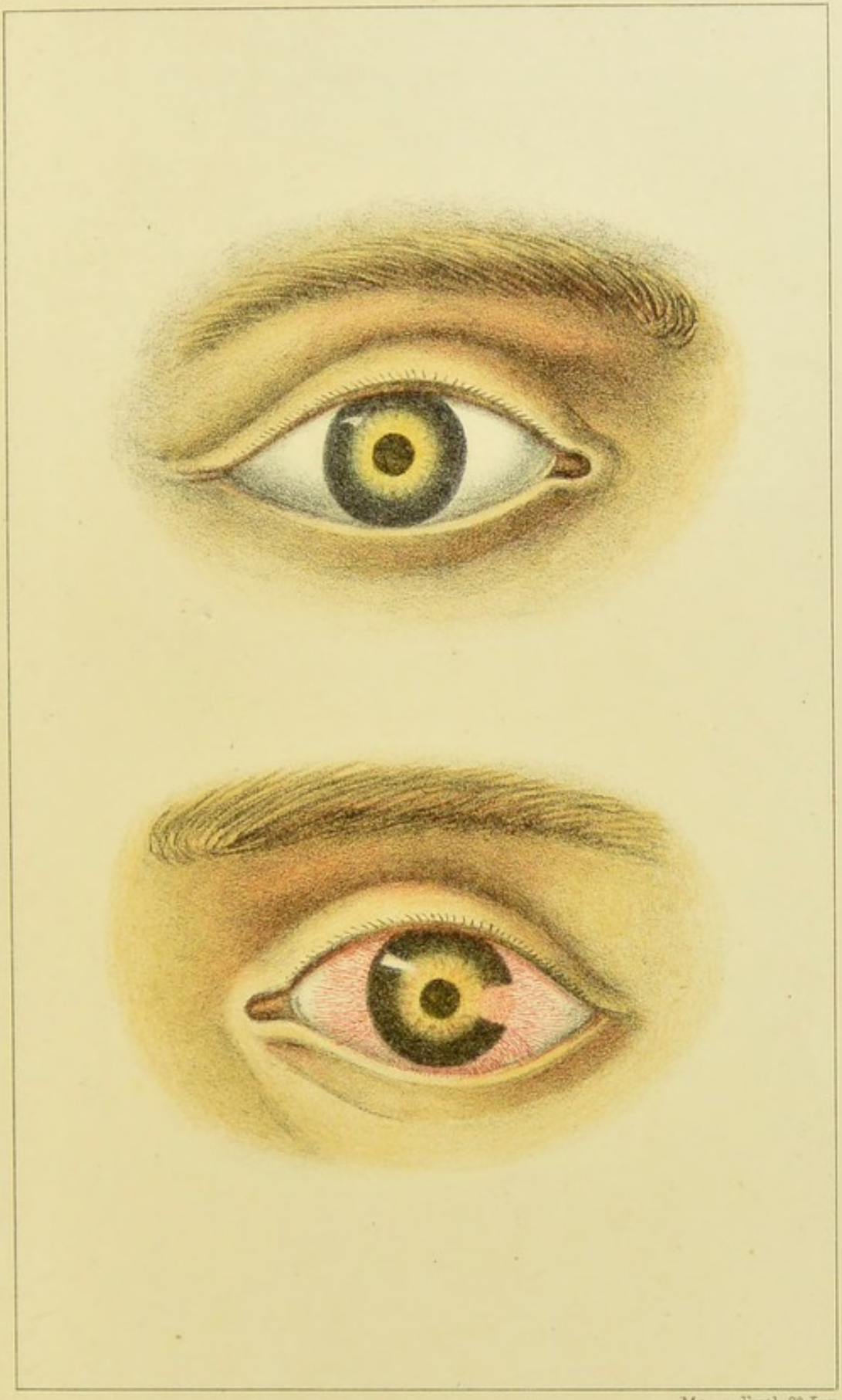


Mason, Firth & Co Imp.

Secondary Veticular Syphilide

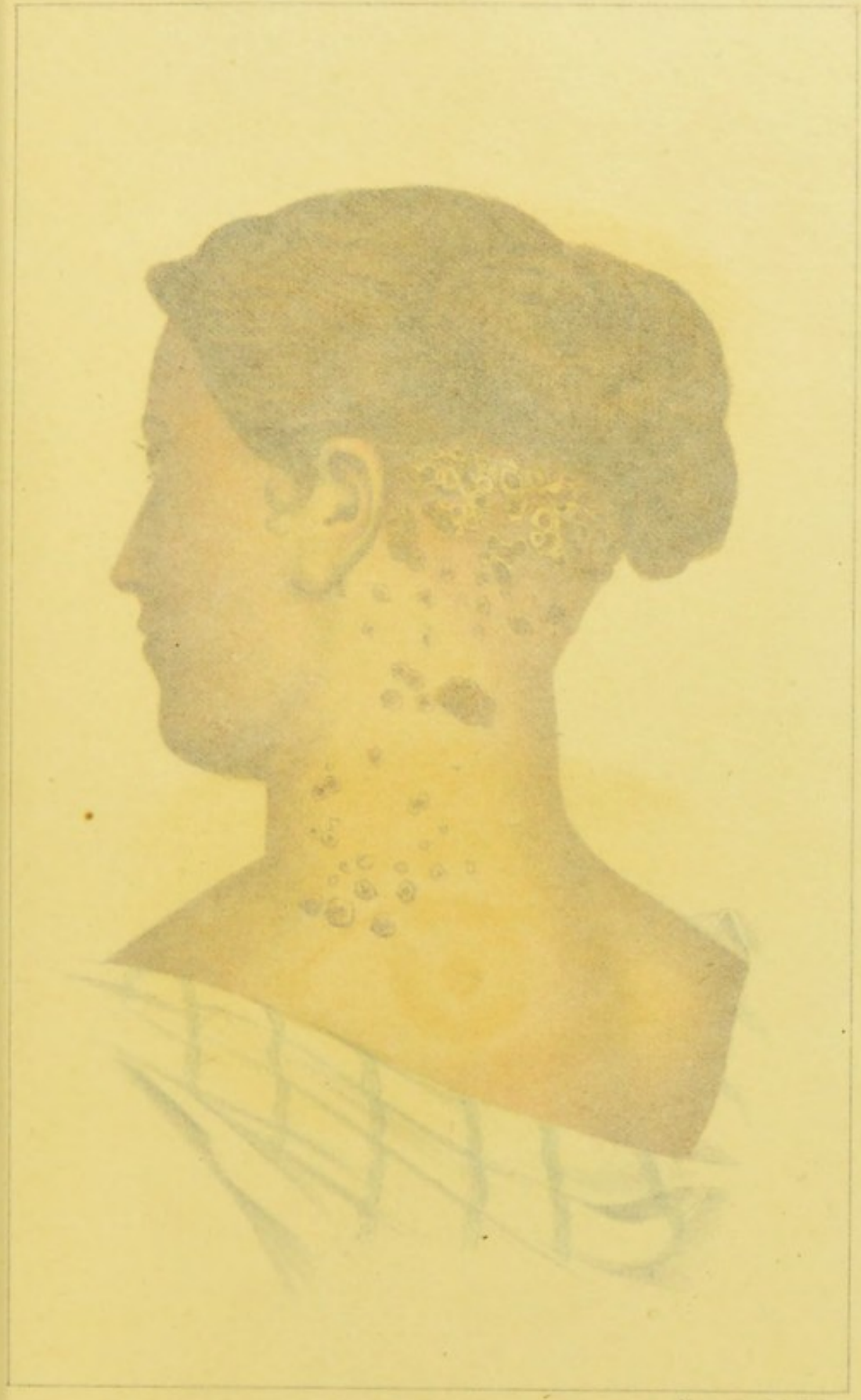
Mason Forth Cº Imp.

Syphilitic Disease of the Eye



Mason Firth C° Imp.

Syphilitic Disease of the Eye.

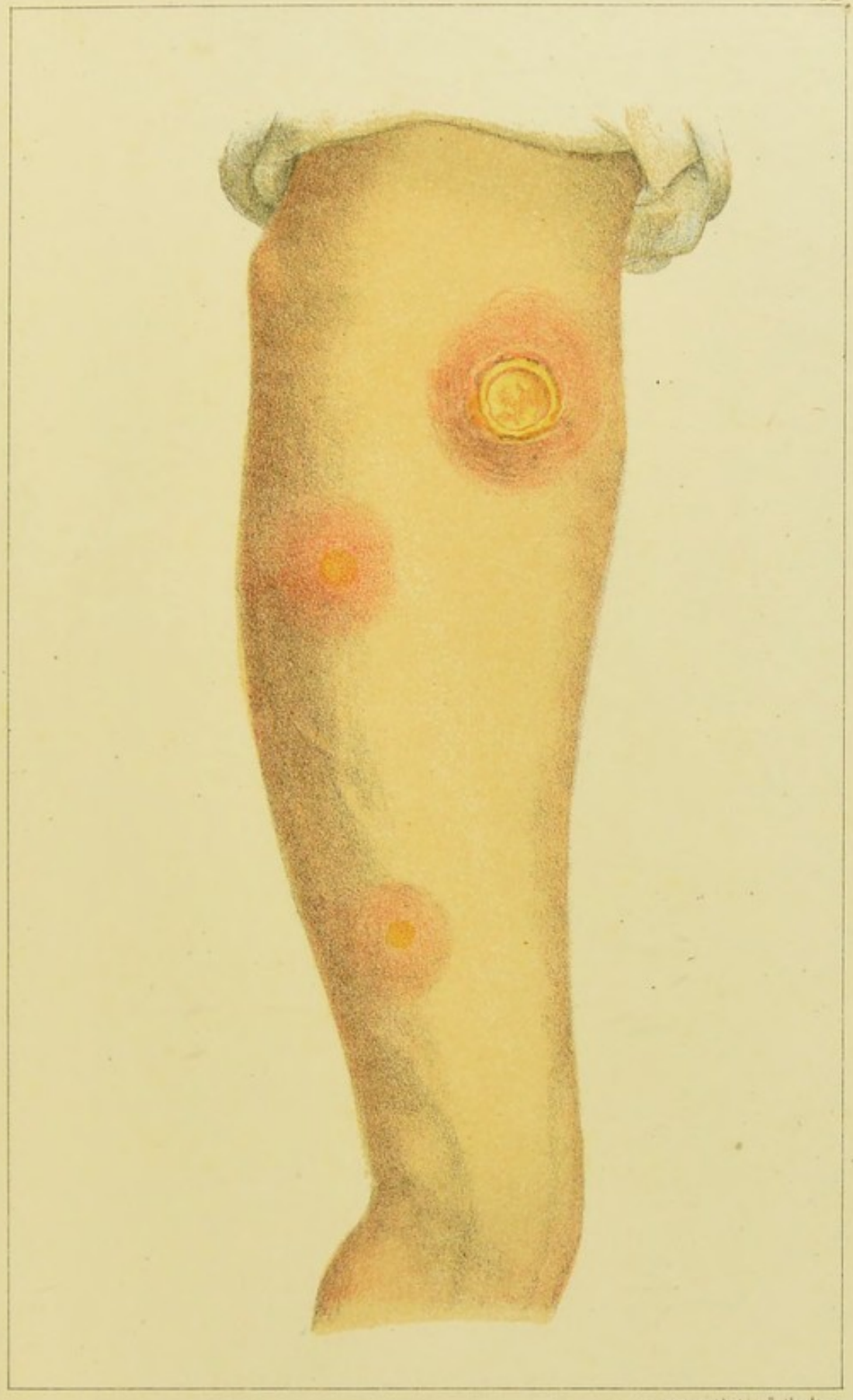


Pustular Syphilide

Mason, Firth & Cº Imp.

Pustular Syphilide

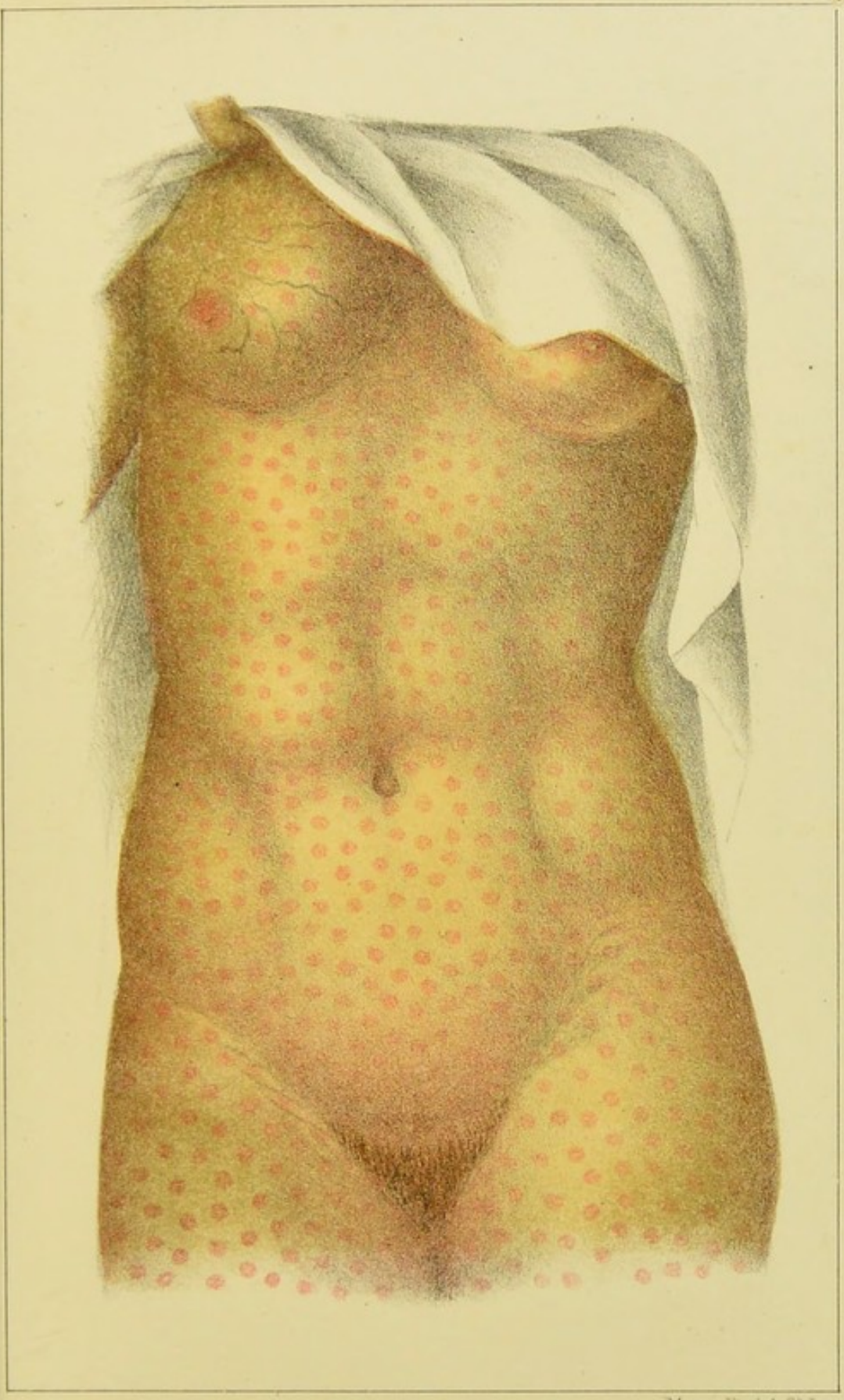
Syphilitic tumours & ulceration of the Skin.



...ason, Firth & Co. Imp

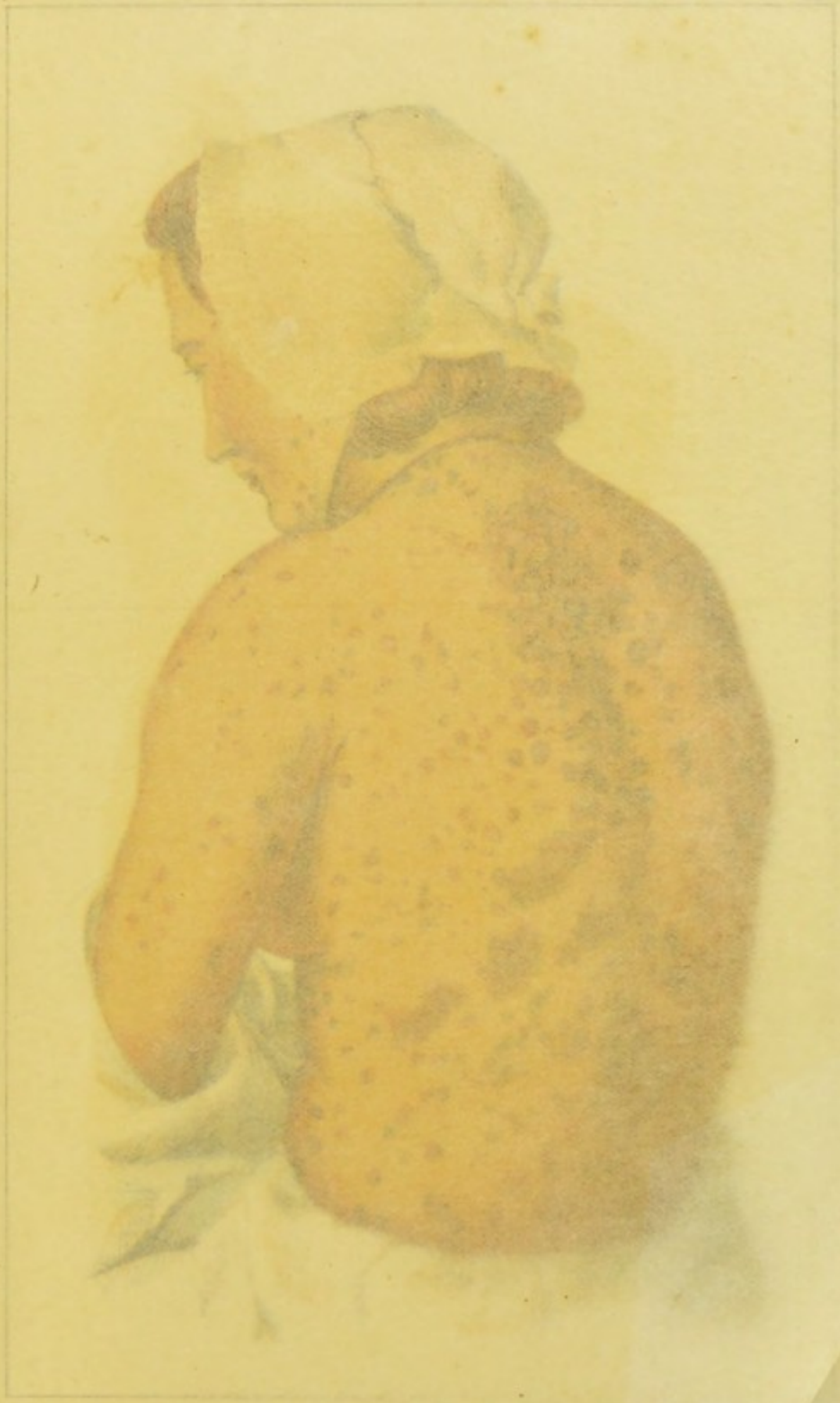
Syphilitic tumours & ulceration of the Skin.

Roseola
Macular Syphilide



Mason Firth & Cº Imp.

Roseola
Macular Syphilide



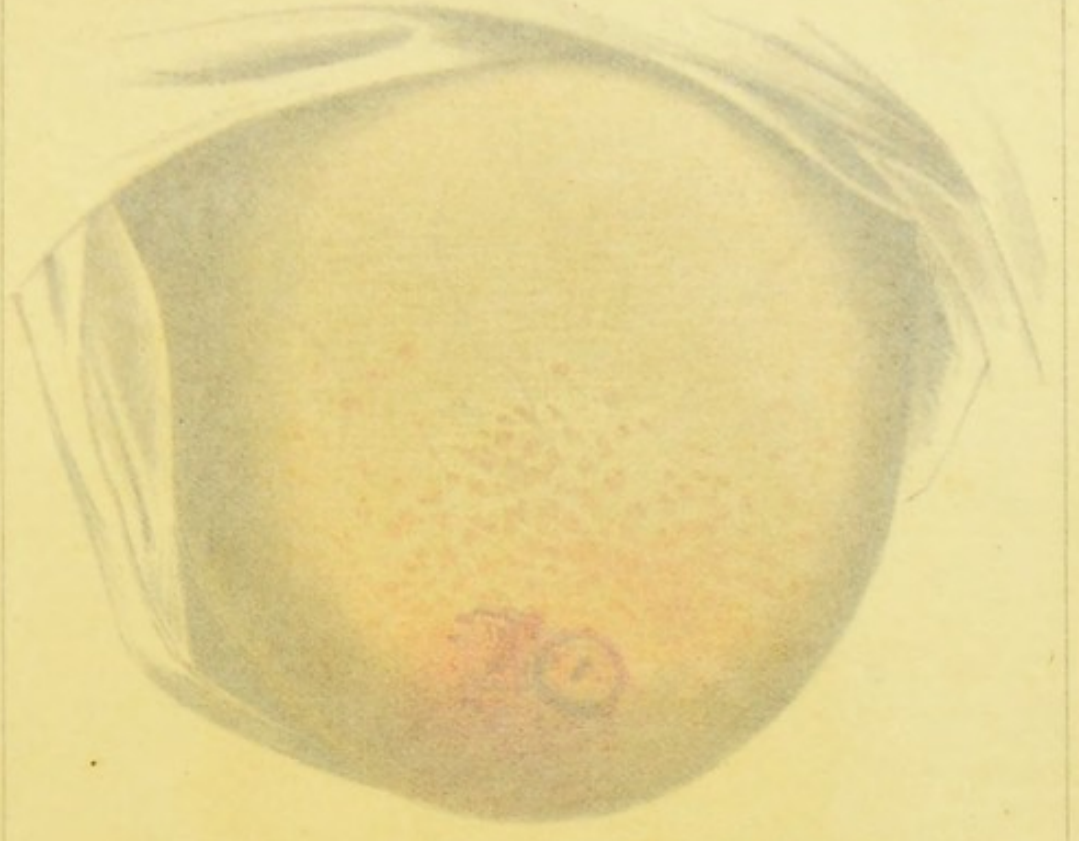
Secondary

Secondary Papular Syphilis.

Tubercular Syphilide

Mason, Firth & Co Imp.

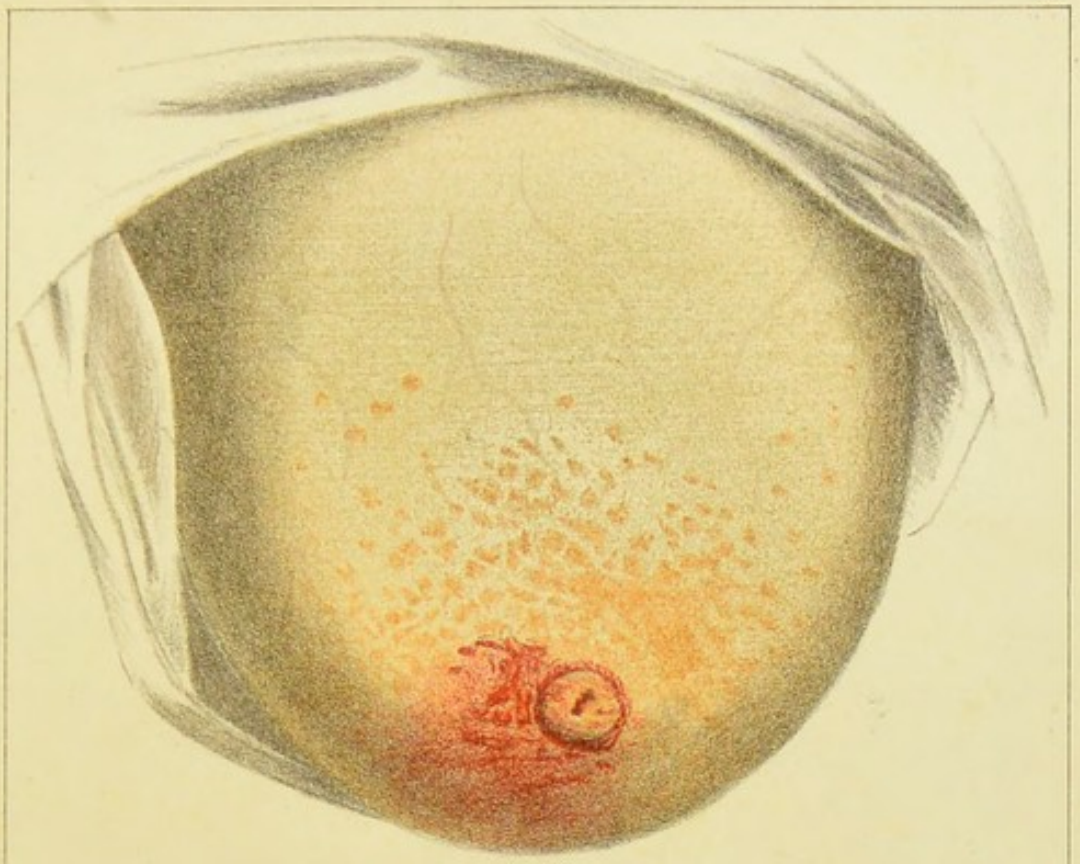
Tubercular Syphilide



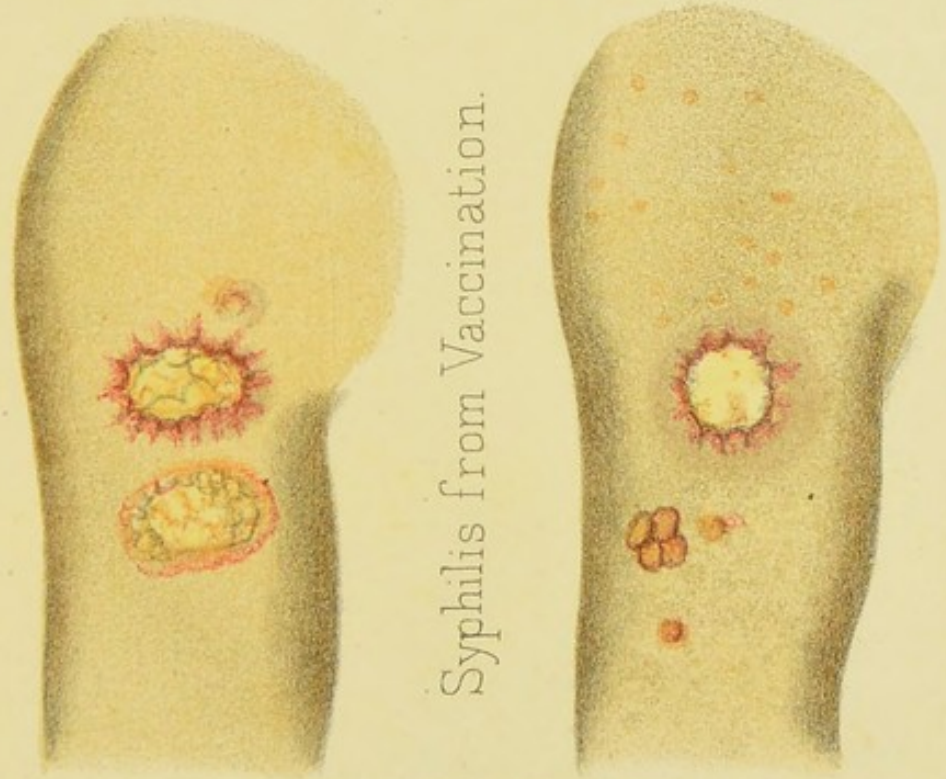
Syphilis of the Breast

Syphilis from Vaccination

Maurer, Forth & Cie Imp.

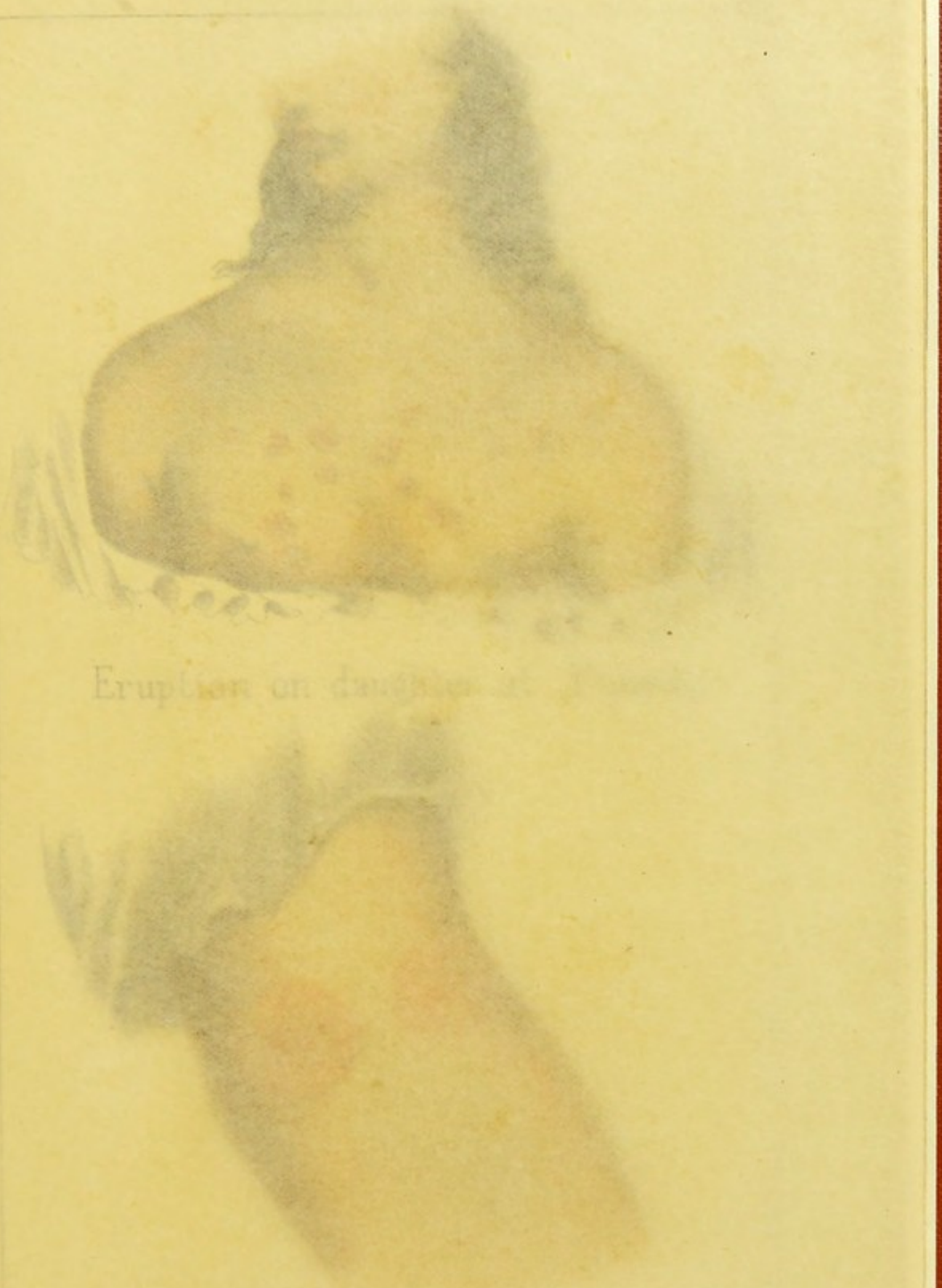


Syphilis of the Breast

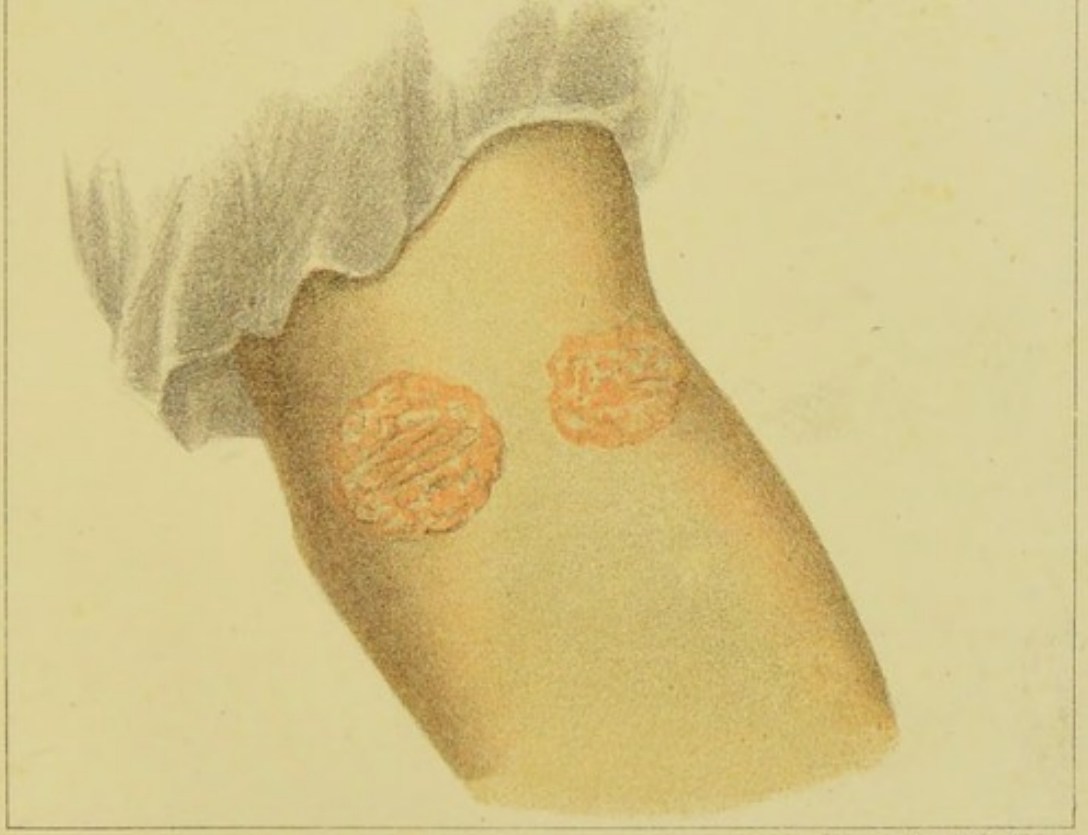


Syphilis from Vaccination.

Mason, Firth & Cº Imp.



Eruption on daughter at Puberty.

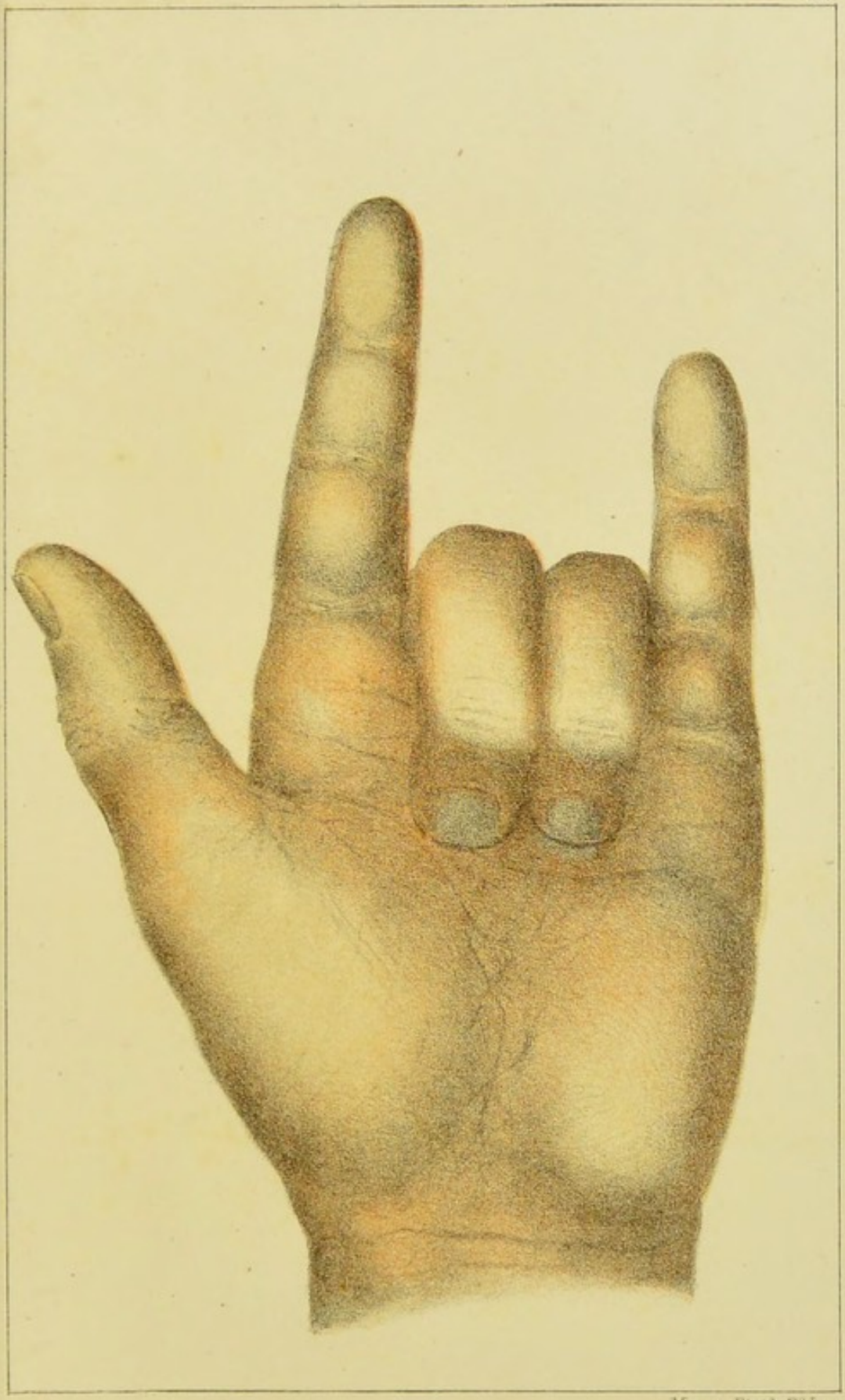


Mason, Firth & Cº Imp

Arm of Mother.

Mason, Firth & Hagg

Syphilitic contraction of the muscles of the Fingers.



Mason, Firth C° Imp.

Syphilitic contraction of the muscles of the Fingers.

Dactylitis Syphilitica or Disease of the Joints.

Mason Firth & Co. Imp.

Dactylis Syphilitica or Disease of the Joints.

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