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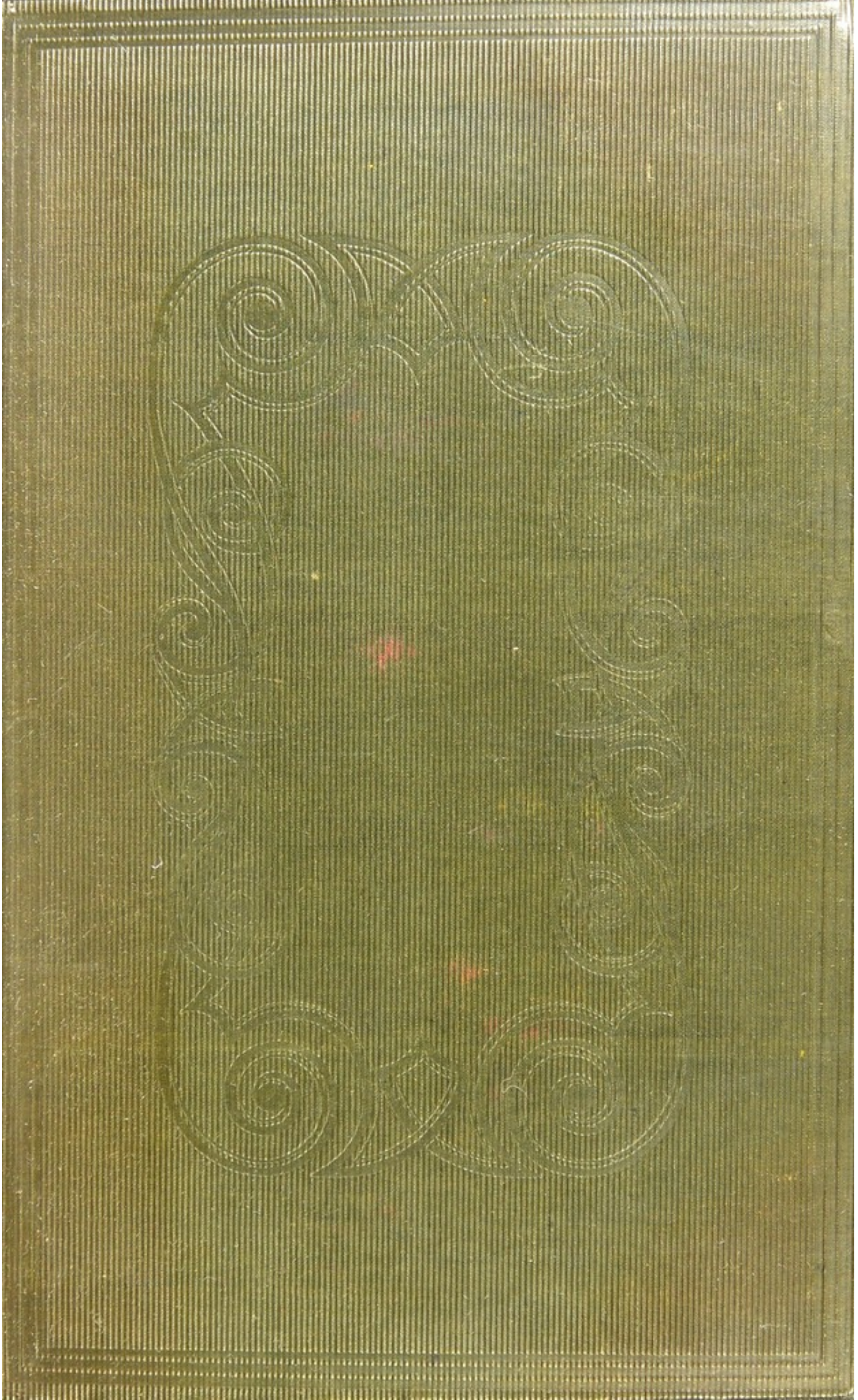

A

TREATISE ON SIPHILIS.

A

TREATISE

ON

SIPHILIS

BY

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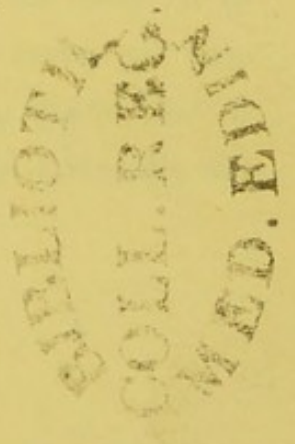

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THIS account of Siphilis was prepared for publication in the *Medical Gazette*, from lectures which I have delivered during the present session in the chair of Surgery in the school attached to Middlesex Hospital. I am induced to republish it in a separate volume by the same consideration which led me to publish it at all; namely, the belief that it comprises some useful additions to the knowledge of the subject current in the profession. And I am the more willing to avail myself of this sort of second edition, as it enables me to introduce a few alterations which were needed. I have endeavoured to put what I had to say briefly, as well as explicitly and clearly; so that the reader, if he should not learn much from this treatise, at all events will have lost little time through its perusal. "Ars longa, vita brevis," is an old medical axiom; perhaps, as knowledge advances, the adjectives may be found to bear transposition.

19, *George-street, Hanover-square,*
Feb. 14, 1840.

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INTRODUCTION.

Siphilis*, lues venerea, lues, is a disease produced by contagion, and evinced by certain local effects or primary symptoms in the part to which the contagious matter has been applied. These are followed by impaired health and special affections of the skin and throat, of the iris, of the bones and joints, and occasionally of other parts, constituting the secondary symptoms of siphilis, or confirmed lues. The ulcer, which forms the primary local affection, commonly occurs on the genital organs, but it may exist on any other part of the cutaneous surface, or upon the lining of the mucous passages.

The study of siphilis embraces several considerations of general pathological interest. Viewed in connexion with the theory of contagion, it will be found that this disease admits of being propagated from no less than three different sources—the secretions of primary sores, the matter of adjacent suppurating absorbents, the secretions of secondary sores—and that one difference, at least, is determinable in the laws of contagion applying to the three instances; at the same time, the route of the poison into the system has been traced a step further than in other parallel cases.

The influence of the state of constitution in modifying the susceptibility towards disease, in retarding or preventing its invasion, in mitigating, or giving virulence to, or even entirely changing, its features, is perhaps in no other instance at once so extensive and so determinable.

The establishment in the system of a peculiar diathesis, of uncertain though limited duration, resulting from the absorption of this morbid poison, is a subject of yet higher moment. The views of derangement of health which are pregnant with

* *Siphilis*, from σιφλος, *odiosam et invisam faciem habens.*

most utility, are not those in which particular organs, their diseases, and modes of degeneration, are made the subjects of special study (essential as such studies are as the first elements of professional knowledge), but rather those constitutional tendencies which bring into simultaneous or successive existence different local disorders, that can alone be remedied through the correction of their common cause. This is universally acknowledged in reference to scrofula, with the vast variety of local affections to which it gives rise, from indolent glandular swellings to tubercular phthisis; with its disposition to be transmitted from parents to their children, yet not without liability to be produced in the healthy by adequate external influences; with its principal manifestations occurring in early life, yet its frequent capability of being restrained and kept under till the time when mature age destroys or weakens its force. And not less understood of the diathesis that occasions gout, with its development towards middle age; and that so generally, that in the majority of men in the higher and middling classes who have passed that term, a large proportion of their chronic ailments is connected with this cause; yet the diathesis coming by descent, although not less capable of being originated by mental and physical over-exertion and stimulation. Perhaps the same view has been less carefully followed out in reference to siphilis, in which, through the primary agency of a morbid poison, another diathesis is brought into existence, manifested by occasional outbreaks of definite and very troublesome disorders, often allowing in their intervals a seeming return to perfect health, during which the infected person continues nevertheless liable to transmit the diathesis to his or her offspring, if, as it more commonly happens in such cases, the tainted embryo does not perish before birth.

Finally, in siphilis, or in the siphilitic habit of body, as in another of the recognised diatheses, it is, that we seem to approach towards the possession of specific remedies. As in gout we have colchicum, so in siphilis mercury and iodine.

These features of the disease, with those of a more special nature, the reader will find gone into as this brief treatise proceeds. At present, his attention is sought to the early history of siphilis, and the conflicting opinions which, in more modern times, have prevailed as to the source of its diversities, and their proper treatment.

Our positive knowledge of the existence of siphilis does not

extend further back than three centuries and a half; within this period the disease was thought to commence, and writers contemporaneous with its outbreak believed that they looked upon a new pestilence.

The period at which siphilis first attracted general attention was the close of the fifteenth century, when its ravages suddenly extended over the continent of Europe, and its symptoms displayed a virulence now unknown. Astruc, in his treatise upon the venereal disease and its origin, has collected the testimony of numerous authors who flourished at or soon after the period mentioned. From these I will select the few extracts necessary to establish what I have advanced, and to explain the circumstances under which the disease appeared. Joseph Grundbeck, a German physician, who wrote in the year 1496, uses these expressions respecting siphilis:—"Labem esse tam repentè in homines demissam, ut plaga cælitùs decussa esse videatur.....NOVUM esse genus morbi naturæ invisum." Alexander Benedictus, of Verona, who had served as a physician in the army of Charles VIII. and seen the eruption of the disease, in 1496 uses the words, "Venereo tactu NOVUM, sed saltem medicis ignotum prioribus, morbum gallicum ad nos ex occidente irrepsisse." Finally, Gaspar Torrella, a Valentian, once a physician, but then a bishop, thus describes, in 1500, the occasion when the disease broke out:—"Gallis manu forti Italiam ingredientibus, et maximè Regno Parthenopæo occupato, et ibi commorantibus, hic morbus detectus fuit. Idcirco ab Italis morbus gallicus cognominatus fuit, arbitrantibus ipsum Gallis connaturalem esse. In Galliâ vero, quia in reversione Regis Caroli cum suis in Galliam, hic morbus apparere incepit, credentes Galli se eum ex Napoli apportâsse, hanc ob causam morbum Neapolitanum vocârunt."

From this and similar evidence we may conclude, either that siphilis originated in or was first introduced into Europe at the close of the fifteenth century, or that, having previously existed there in a milder form, its symptoms became of a sudden frightfully aggravated. The following ingenious reasoning is advanced by Mr. William Becket, in the Philosophical Transactions for 1731 and 1732, which favours the latter hypothesis:—Local venereal affections of a contagious nature had been known in Europe long before the year 1500; while, under the vague name of leprosy, a state of disease prevailed which in many of its features corresponded with lues. The former was likewise believed

to be communicable through intercourse of the sexes. It is possible, Mr. Becket argues, that among the diseases grouped together as leprous, siphilis may have lurked; its connexion with the recognised local venereal affections being overlooked:—just as, we may now add, the distinction between measles and scarlet fever was overlooked till the beginning of the last century, and the connexion of iritis with siphilis till the present. Leprosy, it may be remarked, went out when siphilis came in, and Locks now appropriated to siphilis were originally provided for the reception of lepers.

It would be drawing this thread of conjecture too fine to speculate on the cause of an effect itself hypothetical, and to attempt to trace the supposed aggravation of the disease to events of the period when siphilis first forced itself on the attention of the world. Yet in our own times there has been experience of more than one sudden increase of the severity of the venereal disease; and it is remarkable that the occasions to which I refer have been the march of armies into foreign countries. After the battle of Jena, Baron Larrey, in giving an account of the French quartered in Berlin, observes, that *the most serious malady was siphilis*, with which considerable numbers of the troops were infected, and which in many presented a very troublesome character. In our own troops in the Peninsula the same circumstance was observed. "In the British army," observes Dr. Fergusson, in 1812, "more men have been mutilated by primary venereal sores, during the four years that it has been in Portugal, than the registers of all the hospitals in England could produce for the last century; while venereal ulceration has not only been more unyielding to the operation of mercury than under similar circumstances at home, but the constitution, while strongly under the influence of the remedy, has become affected with the secondary symptoms in a proportion that could not be expected." Dr. Fergusson attributed the destructive effects of the venereal virus when transmitted from the natives of Portugal to the British, partly to its being in some measure new—a branch of the virus which had become modified by passing for several centuries through a stock of different habits, constitutions, climate;—partly to the state of health of the parties who received the infection. It is to be observed that the Portuguese, who communicated the disease in this virulent form to our men, experience it themselves in the mildest form, for which they never take mercury.

But if we are at liberty upon the strength of these instances to suppose that the effects of the poison of siphilis are sometimes aggravated when the disease is transmitted by the natives of one country to those of another, (a circumstance which can only be well ascertained when numbers are simultaneously collected under medical observation,) we seem to understand why, in the French invasion of Naples, the disease, on the hypothesis that it before existed in a milder form, might suddenly have become virulent there. Or we may conjecture that the occurrence of numerous severe cases of siphilis on the memorable occasion referred to, was owing to the heated blood of the soldiery; and that on either view an accidental severity of the disorder only formed the occasion which led medical observers first to see it in its true colours.

The preceding argument tends no less to exonerate the followers of Columbus from the imputation of having imported siphilis from the West Indies. But if we may believe Mr. Bacot, from whom I quote the following statement, there is better testimony in their disculpation:—As early as 1488, Peter Martyr, who was physician to the King of Spain, writing to Arius Lusitanus, the Greek professor of Salamanca, adverts to the new disease of their times, and specifies the "membrorum hebetudinem, juncturarum omnium dolores, ulcerum et oris fæditatem," which accompany it. Now the same physician was at Barcelona when Columbus made his appearance there after his first voyage, but he does not say a word about the importation of the disease in any of his writings. Neither (continues Mr. Bacot) does Columbus, nor his son Ferdinand, who wrote the history of his father's life, in which he gives a description of all the diseases which afflicted the Spanish adventurers up to 1496.

If there is truth in this testimony, it seems to prove that siphilis existed and had become partially known before the commonly supposed era of its origin.

The same reasons which have led me to treat thus briefly of the origin of siphilis induce me to go no further back for the history of modern opinions respecting the disease than the time of John Hunter.

That eminent surgeon and physiologist discriminated with his customary acuteness and force of observation the general phenomena of the disease and their natural order; and his treatise still remains the most valuable which we possess on siphilis. But Hunter had unfortunately given into the then universal belief that

mercury is a specific for siphilis ; and that, being so, its influence on the symptoms of the disease might be taken as a test of the identity of the latter ; and he had adopted the notion that constitutional lues, left to itself, is essentially progressive. These erroneous persuasions did not indeed prevent Mr. Hunter from faithfully observing most of the leading symptoms of the disease, whether curable or not by mercury, although his false test led him to consider many of them as not venereal.

The principal generalizations which Hunter adopted respecting the disease, that continue with certain modifications to be held good at the present day, are the following :—

I. The recognition of one form of primary ulcer as specially occasioned by and characteristic of the siphilitic contagion. And it is remarkable that although we now admit that local ulcers of another character are liable to follow impure intercourse, and to infect the system, still the opinion universally maintains its ground, that the appearances specified by Hunter are most decisive as to the nature of the disease.

II. The recommendation, only too strongly expressed, of the employment of mercury in the complaint so identified. Agreeably with which, it is in that particular form of the complaint that surgeons are still agreed upon the propriety of employing mercury.

III. The theoretical principle, that mercury cures venereal *action*, but does not remove the *disposition* previously formed, and which is not yet come into action. A proposition true at the present time, if we alter it to this form—that in the cases to which mercury is applicable it removes the existing symptoms, but does not prevent, when the constitution is already affected, new classes of secondary symptoms manifesting themselves.

IV. The expression of the principle, that although mercury does not destroy the disposition already formed, yet that it prevents its forming. In other words, that mercury administered for certain primary symptoms tends to prevent constitutional lues.

It is interesting to observe what, and how little modification, upon these important points, Mr. Hunter's opinions admit of from the enlarged experience of the present day, and how near and like they are to truth. Mr. Hunter was himself fully aware of the extent of the field which he left unexplored, and of the existence of a number of cases resembling venereal cases, which are rebellious to his principles; and these he adverts to, and in a degree exemplifies, and recommends their investigation to his successors.

Mr. Abernethy, in his views the closest follower of Hunter, pursued with diligence the examination of the irregular cases of siphilis, or of those which would not yield to mercury. These cases, supposing them of spontaneous origin, he classed together under the head of pseudo-siphilis. But he in no respect disencumbered himself of the erroneous opinions of his eminent predecessor. Thus one of Mr. Hunter's incorrect generalizations was, that the disease once established, "goes on increasing, without wearing itself out." And we find Mr. Abernethy expressing his conviction of the truth of a branch of this false doctrine, while at the same time he was adding useful materials to the general stock of information respecting the disease, in the following passage :—

"A very simple fact," observes Mr. Abernethy, "has enabled me, in most cases, to distinguish between the two diseases (siphilis and pseudo-siphilis); yet, simple as it is, if it be generally true, it is very important; and if it were universally true, it would be of the highest consequence. The fact alluded to is, that the constitutional symptoms of the venereal disease are generally progressive, and never disappear unless medicine be employed. It may be added, too, they are as generally relieved under an adequate effect of mercury on the constitution."

The next step in the progress of our knowledge of the disease was made by Dr. Adams, who, although adhering to Mr. Hunter's error, that curableness by mercury is a test of siphilis, was led to discriminate one important variety of primary venereal disorder, and to separate it from that with which Hunter was familiar. Dr. Adams was the first to separate phagedæna from chancre, while at the same time he advanced the opinion that the two proceed from different morbid poisons. Thus, after describing a well-marked case of the former disease, he observes, "that the case related was the effect of a morbid poison introduced from the broken skin at the lower part of the prepuce, can hardly be doubted; and that it was not venereal, is to me equally certain. Is it consistent (he says) with what we know of the latter, that a venereal ulcer should increase while mercury is showing its effects on the constitution?" In a practical point of view, it is comparatively of little consequence whether phagedæna proceed from a different virus to that which produces siphilis: if the decision of this question is finally given against Dr. Adams, it will in no degree diminish the value of his judicious separation of the two diseases.

It may be interesting to remark, that the same erroneous principle which had misled Hunter and continued to mislead Abernethy, led at last to the adoption of one genuine and useful distinction among primary venereal affections. Dr. Adams saw that mercury would not cure phagedæna; so, following the common error, he reasoned that phagedæna was essentially different from chancre: at the same time he saw that it must be attributed to the agency of some morbid poison, and in this dilemma he invented a new one.

The same error continued to influence and to assist Mr. Carmichael in making the next great step towards elucidating the subject. Mr. Carmichael endeavoured to classify other groups of cases rebellious to mercury; and he finally considered himself to have succeeded in establishing the existence of a second, demonstrated by definite primary affections, followed by constitutional symptoms of a peculiar character, among which papular cutaneous eruption was a prominent feature. With these he contrasted, admitting the genuineness and asserting the distinctness both as to origin, character, progress, and method of treatment of the latter, the venereal disease as described by Hunter: for the latter, and for the latter alone, he still considered mercury the specific. And certainly his association of ulcerative secondary disease with primary phagedæna had no less value than originality; and the conjunction which he remarked between papular disease and superficial primary ulcers, has been, to a certain degree, borne out by the experience of others. Nevertheless, in the progress of this treatise I shall have occasion to show that these conjunctions, though frequent, are not constant; and that Mr. Carmichael, whilst contributing the most important materials towards an improved knowledge of siphilis, failed in the theory which he used them to construct.

His reasonings, and those of Dr. Adams, viewed as tending to the establishment of the existence of separate morbid poisons, or of diseases essentially distinct, fell to the ground on the impulse subsequently given to this subject by the army surgeons of this country, headed by Mr. Rose, (in contributing to which, indeed, Mr. Carmichael himself was not backward,) who satisfactorily established that all cases of primary sores, and all the secondary symptoms of siphilis, may get well without mercury, and that the natural tendency of the disease is towards a spontaneous cure. The essential element of difference between the diseases con-

trasted with each other was thus done away with; yet that hypothetical element had led to the discovery of differences which are real; yet which are only seen in their true relation now that that element is removed.

I will not now anticipate the direct evidence which will be brought before the reader in the progress of this treatise, to establish that differences of character which have been supposed to show essential differences in primary venereal sores and secondary affections are accidental only, and depend upon the condition of body alone of the person receiving the infection: but I may take the opportunity of introducing mention of two cases which tend to show that, to a certain extent at least, the latter explanation holds good. The first case is one by Dr. Fergusson, in a paper in the Medico-Chirurgical Transactions, which I have already quoted.

An officer, four days after having connexion with an opera-dancer at Lisbon, applied to Dr. Fergusson, with the whole penis enormously swelled, of a deep red colour: there were chancres on different parts of the prepuce, and two on the glans penis, "the appearance of which could be compared to nothing but the holes made in a piece of mahogany or log-wood." He was a young man, robust and plethoric. The skin was hot, the pulse sharp and quick, tongue white, eyes suffused. Being copiously blooded, and cold acetous lotions having been applied to the part, and free purging obtained with neutral salts, the tumefaction subsided, and the sores became healthy. The person who communicated the infection continued on the stage for many months afterwards, apparently in perfect health, but occasionally infecting others, yet without anything extraordinary that was learned in the nature of the symptoms.

The other instance is from Mr. Rose, who observes, "I recollect many years ago a healthy young man, who was affected with a decidedly sloughing sore in the penis, in consequence of a suspicious connexion. He twice afterwards, at a very considerable interval, had a fresh infection, and the sores each time had the same character as the first."

It remains, before proceeding to the examination of the varieties of primary siphilis, to investigate two other preliminary questions:—Are local symptoms necessary at all in siphilitic contagion; or may the poison be directly absorbed without producing any sensible local disturbance at the point where it finds entrance?

Secondly, may not common sores serve for the introduction of siphilis, as well as those which by their peculiar character have been thought to indicate local contamination?

Every surgeon must have met with cases where decided symptoms of secondary siphilis existed, yet in which the patients, where there has been no motive for concealment, have retained no recollection of any antecedent local affection. In some cases, again, the patient remembers having had a suppurating gland in the groin, but denies having had any discharge or ulcer on the genitals. Such statements it is, perhaps, impossible not to view without suspicion of their accuracy, and that without imputing to the patient any intention to deceive. A gentleman consulted me for a large burrowing ulcer on one side of the glans penis; there was some swelling and redness round it, but it was not painful. I found that he had a smaller circular ulcer, a third of an inch in diameter, on the other side, of the existence of which he had not an idea. This, I have no doubt, had been in existence ten days or more, and it might have healed under treatment given for the other, without the patient knowing that he had this ulcer. So I conclude that it happens occasionally that a patient entirely overlooks the existence of the primary sore, which heals without the use of remedies. And this may be, and most probably is, the explanation of all cases of secondary siphilis, supposed not to have been preceded by a primary sore. Nevertheless, it is not impossible that the venereal virus lodged upon a surface may make its way into the system without causing a local ulcer at the point where it has found entrance. The process by which poisons are introduced into the system is probably twofold; one effected by the circulation, the other by the lymphatics. In a wound into which the stronger vegetable poisons are inserted, or when the same are injected into the intestine of an animal, it is experimentally certain that the poison permeates the adjacent porous textures, as it would, being in liquid solution, penetrate a sponge; that, among the other textures, it penetrates the coats of the blood-vessels, upon which it reaches the blood, and becomes mixed with it, and poisoning takes place. But in the introduction of the morbid poison of siphilis, the mechanism of absorption appears to be different. The liquid containing the virus being applied to a vascular surface, or one protected by a cuticle so thin as to offer no sufficient impediment, permeates or is imbibed by the vascular surface, and is incorporated in it. In the com-

mon course of events, the presence of the virus in the cells of the tissue irritates it, and inflammation and an ulcer ensue, that ulcer forming matter of the same virulent kind that infected the part, and the absorption of the affected portion of skin carrying the taint into the habit. But supposing this to be a just account and theory of the ordinary process of venereal absorption, it is not inconsistent with what is known of the occasional impassiveness of the system to suppose that the imbibed virus may sometimes not irritate, but growth go on as usual, deposition and absorption balancing each other as in the healthiest condition of the part, and the virus making its way into the system silently and unobserved.

If the latter view be improbable, it may yet be considered as certain that the venereal disease may be conveyed into the system through any common abrasion of the surface; or rather, that constitutional lues may occur where nothing has gone before but a sore lasting a few days, and looking like a common excoriation. A gentleman consulted me for what appeared a common excoriation on the inner surface of the prepuce, near the corona glandis. I advised him to apply a shred of lint dipped in a lotion of calomel and lime-water, to heal it. It closed in two or three days, and he went into the country, where he took active exercise, it being the hunting season. In six weeks he returned to town to show me a trifling swelling in the groin; it was an inguinal gland, barely enlarged, and perhaps more sensible than natural when pressed. This symptom disappeared in a day or two; but I observed that the skin of his abdomen and loins was mottled, and I learned that he had rheumatic pains in his back and shoulders; then siphilitic psoriasis appeared on the head and palms of the hands, joined with slight excoriation of the throat, and his hair began to fall off. The complaint was extremely mild, and he has recovered without the use of mercury; but it certainly was siphilitic, and he had had no primary sore, except occasional excoriations like that which I saw.

CHAPTER I.

OF THE LOCAL AFFECTIONS, WHICH PRECEDE CONSTITUTIONAL LUES, AND THEIR TREATMENT.

THE observations which I have to offer in this chapter will be arranged under the following heads:—

I. The description and treatment of accidental sores; meaning, by this term, such as are rarely followed by lues, and through which it may be presumed that the introduction of siphilis into the system, when it takes place, is casual, or has nothing to do with giving them their existing character; in the appearances of which, therefore, there are no grounds to justify the adoption of preventive measures against lues, while it is nevertheless expedient to cure such sores as speedily as possible, inasmuch as they are liable to receive and to retain infectious matter.

II. The description and treatment of phagedæna; all the varieties of which are generally traceable to contagion, and are liable to be followed by lues, while the use of mercury in their treatment is in general either prejudicial or nugatory.

III. The description of the various forms of chancre, or of those sores which at once are frequently followed by constitutional lues, and generally heal speedily and soundly under the use of mercury, which again to a certain degree diminishes the danger of the system becoming contaminated.

IV. The treatment of chancre; the arguments in favour of and against, and rules for the management of, a mercurial course.

V. The description of the accidents of primary siphilis, and their treatment.

SECTION I.

Of Accidental Sores.

Under the present head will be described abrasions of the epidermis, inflammatory excoriations, herpes præputialis, clustered preputial ulcers, warts.

Abrasions of the epidermis.—Abrasions consist in the cuticle splitting and being rubbed off. Their common seat is the lining of the prepuce, a quarter to half an inch from the glans, or the fræ-

num, or the adjacent surface. The abraded patch at first bleeds, after which for a few hours it remains a raw surface; then it becomes covered with a thin film of grey lymph; by the third day it is generally healed, the cuticle having been replaced. These abrasions are sometimes several days in healing, the lymph becoming organised, and changing into granulations. In shape they are commonly oblong, with an imperfectly defined edge, the surface being soft, or without induration.

To promote the healing of such an abrasion, the part should be washed with soap and water, and a shred of lint, dipped in cold water, afterwards applied twice a day. There is no objection to dipping the shred of lint into the liquor plumbi subacetatis dilutus, or into a wash of calomel and lime-water.

Inflammatory excoriations.—By this expression I mean inflammation of the surface of the glans, and of the lining of the prepuce, partial or general, with more or less removal of the epidermis, and suppuration from the excoriated surface. If neglected, the complaint is liable to cause phimosis, and the excoriation to run into superficial ulcers. Severe inflammatory excoriation is occasionally produced by gonorrhœal infection. The complaint, in a trifling degree, is liable to be produced by any source of irritation existing in the urino-genital system; I have known it thus remotely dependent upon disease of the kidney. It is often produced by or goes with an increased quantity of sebaceous secretion from the follicles of the corona. Then half-a-dozen reddish, raw patches are seen, which, if neglected, would go on to the state just described. Washing with tepid soap and water, and the application of a shred of wet lint, are the only remedies required in trivial cases; in the more severe, frequent bathing with tepid water, or the use of tepid anodyne injections under the foreskin, and afterwards of some astringent wash, is the proper treatment.

Herpes præputialis.—Herpes præputii is a vesicular complaint of the foreskin, a small circular or oval patch of which becomes red and tumefied, and itches. After a few hours it is covered with a crop of vesicles of the size of pins'-heads, or bigger. If they are on the outer surface, they break and dry in two or three days; if they are on the inner and moist surface, they generally form as many shallow ulcers, which, if the part is kept clean, and a shred of lint applied, heal in two or three days more. Sometimes a crop of vesicular sores of the same nature forms around the corona glandis. Occasionally a red patch is seen on the

glans penis, upon which two or three vesicles form, break, and dry up. Washing, and the shred of lint, as for excoriations, are all that is required. Without these means, the vesicles, or little ulcers, dry and heal a day or two later. Some persons are more liable to herpes than others. Whatever irritates the urethra tends to produce it; so the removal of a stricture has been found to lessen the tendency to this complaint. Washing with salt and water, or with a weak solution of corrosive sublimate, or with vinegar and water, I have known of use, where the disposition has been troublesome. It is needless to say, that all that tends to heat the system increases the disposition where it exists.

Sometimes at the fossa of the corona glandis one or two distinct pustules form, which breaking, become superficial ulcers, that dry up in three or four days under the treatment above recommended. It is good practice to touch such an ulcer with the nitrate of silver, and then to apply a shred of wet lint.

Clustered Preputial Ulcers.—It is hardly necessary to separate these affections from the last, from which, or from a common cause with which—namely, a disposition towards breaking out in the part, attributable to heat in the system, or to local excitation—they arise.

Sometimes the complaint takes the form of a crop of ulcers on the outside or quite at the extremity of the prepuce, five, six, or seven in number, which are at first circular, but afterwards their figure becomes less regular. At first there is no induration round them, and their surface is soft and yellowish, but with something like organized points of granulations mottling it; afterwards the surrounding texture becomes firm with inflammatory infiltration, and the surface of the sores is whitish, and the surface and edges become raised. These sores are painful, irritable, and often slow to heal, the contact of the urine contributing to make them worse.

Mild astringent washes, Peruvian balsam ointment, or opiate washes and poultices, according to circumstances, are the proper applications; and in a few weeks the ulcers heal. Mr. Abernethy gives the following case, in which the exciting cause appears to have been an acridness in the healthy secretions:—

"A gentleman was connected with a woman who was kept by another gentleman, and derived from such connexion several very irritable foul sores, which broke out on the prepuce, but which, however, had not the siphilitic character. As neither the woman

nor her keeper had any disease, he had no wish to take mercury; nor had I, being consulted in his case, any desire to recommend it to him. The sores did not heal until between two and three months, though a variety of local applications was employed. He at length became perfectly well, and was cautioned not to be again connected with the same woman. But his inclination got the better of his prudence, and another crop of sores, equally irritable, foul, and tedious, took place in consequence of a second connexion. These sores were treated in the same manner as before, and slowly healed. After some lapse of time he again erred in the same manner, and again received the same punishment. He had no constitutional illness from these sores."

Ulcers of this description occurring upon the lining of the prepuce, near the orifice, being constantly irritated by the urine, are liable to become very painful, and the cellular tissue round them to be much hardened. Phimosis may follow, for which it may be necessary to divide the prepuce. The general means are the same as in the first case. The inner surface of the orifice of the prepuce sometimes becomes chapped and fissured; which is to be cured by frequent washing and mild astringents, with the use of simple cerate to soften the part and protect it from the urine.

Warts are formed of the papillæ of the skin produced in fine villi covered with thickened epidermis; they are therefore vascular and sensible; their texture is harder or softer, and their colour grey or red, according to the quantity and density of the cuticular part. Their surface is spongy; they grow either as a continuous bed from some extent of the skin, or in clusters of separate warts, in contact or detached. Generally they are broader than high, and have a broad base; sometimes they are elongated or pedunculated. They generally follow gonorrhœa, and seem to arise from the irritation of the skin by the gonorrhœal matter.

Warts most frequently grow on the inner prepuce near the corona glandis; sometimes on the glans; sometimes on the outer surface of the prepuce; sometimes on the perineum. In women, the external labia and the perineum are their usual place.

Warts covering a considerable extent of surface, and not elevated, forming a broad but shallow growth, will usually disappear under the application of mercurial ointment. If this remedy is insufficient, the next to be mentioned are to be used.

Ordinary clusters of warts, thick and broad, should be washed with acetic acid, or touched with nitrate of silver; or, if refractory,

they may be cut away, or destroyed at once with strong nitric acid, or the chloride of zinc paste.

Warts that are long should be cut off with scissors, and nitrate of silver applied to the wounds.

SECTION II.

Phagedæna.

UNDER this head may be properly grouped a considerable variety of primary affections, agreeing, first, in this circumstance, which justifies the application of the term phagedenic to them all, that, whether mild or virulent, they progressively eat away the surface or part attacked more rapidly than other sores; secondly, in their origin from siphilitic contagion, and in their originating constitutional lues; thirdly, in their being generally made worse by mercury.

Phagedæna may be considered as primarily of two kinds, the ulcerative and the sloughing, which differ in the mode, expressed by the name of each, in which they spread. But the alliance of the two is so strict, that the more serious cases of ulcerative phagedæna are often attended with partial sloughing; and many cases which begin as sloughing phagedæna are found, after a time, to progress by ulceration.

Ulcerative phagedæna.—Phagedenic ulcers, whether deep or superficial, destructive of the entire thickness of parts or of surfaces only, agree in these respects: — They are not circular, but have an irregular outline, the ulcerative action spreading unequally at different parts of the circumference. Their surface is in colour yellow, with a few red points upon it; this yellow surface is the texture of the part previously infiltrated with lymph denuded by progressive absorption: the red spots are the ends of vessels containing clotted blood. The integument at the edges of the ulcer is soft, tumid, and red. The abrupt contrast of the red skin and yellow ulcer, which is eating into it, is very striking.

The appearance and habitudes of a phagedenic ulcer are so peculiar and different from those of other ulcers of the genitals, as naturally to suggest the suspicion that they have a different source. But it will be afterwards shown that primary ulcers of other characters are liable to be followed by the same form of constitutional lues which follows the primary phagedæna; and I have found inoculation with the matter of phagedenic sores of the genitals upon a

remote part of the person produce chancre, or a sore with all the features of chancre. A patient lately in the Middlesex Hospital had a primary phagedenic ulcer on the glans penis, and an extensive phagedenic sore upon the thigh: these became worse with mercury. Medicine was discontinued, and wine and porter given in its stead, and the ulcer upon the thigh assumed a healthy character; that on the penis remained phagedenic. With matter from it I inoculated this patient upon the back of the fore-arm: an ulcer formed, which had all the characters of those sores, which are produced by inoculation with the matter of chancre. I obtained a corresponding result in two other cases. I am disposed to conclude from these facts, that what gives the phagedenic character to sores on the genitals after infection, is some peculiarity of the general habit, together, perhaps, with some local disposition to run into this ragged form of ulceration, in which the texture attacked perishes without a struggle.

Phagedenic ulcers may be subdivided into the virulent and the benign.

Virulent ulcerative phagedæna commonly attacks the glans, beginning with inflammatory tumefaction and excoriation of some part of its surface. This is soon converted into an ulcer having the character already described, that spreads rapidly, being attended with severe burning pain, and profuse ichorous discharge. The distance to which the inflammatory swelling and redness of the adjacent parts extends is variable: sometimes it is limited to the integument immediately bordering the ulcer; sometimes it involves the entire penis.

When the ulcer invades the glans and prepuce simultaneously, it destroys the former more quickly than the latter; but it is liable to spread with yet more rapidity in the adjoining subcutaneous cellular membrane. Mr. Babington, in his valuable notes to Mr. Palmer's edition of Hunter's works, has very faithfully described this incident in the disease. "The ulcer burrows between the body and the skin of the penis, dissecting in its course the corpora cavernosa from the integuments, and creeping upwards from these parts often as far as the os pubis. Under these circumstances the bottom of the sore cannot be fully exposed, and the part which is within view is generally clean, and sometimes slowly healing, while the portion which is concealed is foul and yellow, and secretes large quantities of a thin brownish discharge. This spreading edge is attended by the usual tumefaction, which

may be felt externally as a hard ring encircling the body of the penis, marking the distance to which the sore has extended, and in the progress of the complaint extending nearer and nearer to the root of the penis. As long as this thickened edge is to be felt, so long the sore is spreading. If the bottom of the sore cleans and tends to heal, the improvement may be known by the subsidence of the thickening, as immediately and as certainly as if the whole of the surface were exposed to view."

When the ulcer happens to be thus spreading along the surface of the corpus spongiosum, it is liable to eat through its substance, making an opening into the urethra, which it is afterwards extremely difficult, if not impossible, to close.

Phimosis, or inflammatory tumefaction of the prepuce sufficient to prevent its retraction, frequently goes with and masks phagedenic ulceration of the glans. Phimosis, from this source, is characterised by profuse ichorous or sanious discharge that is often highly offensive; the red and swollen prepuce appears livid at one or more parts which have a disposition to slough. There may be present, besides, greater soreness on pressure at one part than another, and some inequality of the surface of the parts within, discernible by the touch.

Spontaneous hemorrhage is not an unfrequent attendant of virulent ulcerative phagedæna, proceeding from some artery of larger size that has been opened through its spread; and the patient may thus lose a considerable quantity of blood: such an hemorrhage is generally beneficial. It may be repressed, if excessive, by touching the bleeding orifice with a cautery.

When the disease becomes less virulent, its true character often remains upon the edge alone of the ulcer, and sometimes upon a part only of that. The remaining part may be covered with healthy granulations: if it be upon the body of the glans, the latter often presents a remarkable villous surface. The disease, after becoming mitigated, or after having disappeared and the ulcer cicatrised, is liable to break out anew with all its former character and virulence.

Practically, virulent ulcerative phagedæna manifests in either of two opposite characters. In persons of a vigorous constitution it is attended with considerable inflammatory swelling of the part, heat of skin, white tongue, frequent and hard pulse.

In persons of broken constitution there is occasionally seen equally or more rapidly destructive ulceration, with little attend-

ant inflammation, the pulse being frequent and feeble, the countenance anxious, the bearing of the patient nervous and agitated.

It is obvious that the same method of treatment is not applicable to the two.

In the first case, venesection to sixteen or twenty ounces, aperient medicine, abstinence, and remaining in the horizontal posture, are the appropriate general remedies. The best local remedies are those that are most soothing; either lint applied kept moist with a solution of opium in water, or a saturnine and opiate lotion, or a bread poultice. These means being used, in twenty-four hours the ulcerative process will often have stopped, and an approach to a healthier character have commenced. Sometimes it is necessary to repeat the bleeding on the next day, or that following. In cases complicated with phimosis, it is generally necessary to slit up the prepuce, both to prevent its sloughing, and to expose the sore to sight and treatment. In this case sufficient blood, to render venesection unnecessary, is commonly obtained from the incision; upon which it may be necessary even to tie a vessel or two afterwards. When the ulcer burrows under the integuments of the penis, it is equally necessary to divide them to reach the ulcerated surface. If, when the inflammatory or plethoric state of the habit has been removed, and the patient is cool in body, the pulse tranquillised, the local inflammation lessened, the phagedæna continue, the practice to be pursued is still alternative, depending on the exact condition of the ulcer; if this is still spreading virulently, its surface is to be destroyed by the application of nitric acid. A single application is commonly sufficient. The other method consists in the application of different stimulants. These, which will be named in treating of benign phagedæna, are to be resorted to if the disease have become of that character, indolent, and indestructive.

In virulent ulcerative phagedæna in an asthenic habit, bark and wine, with opium, are the appropriate general means; the local remedy is the application of nitric acid.

The milder form of ulcerative phagedæna is particularly intractable; but its ravages are inconsiderable, the spread of the ulcer being slow, sometimes burrowing, but being for the most part superficial. In some cases the ulcer may be seen occupying part of the glans and the adjoining part of the prepuce; the glans and prepuce being red and swollen, the ulcer at one part advancing, at another granulating and cicatrising, appearing to have depth

from the surrounding tumefaction. Sometimes it spreads over one half of the glans alone, as a shallow serpiginous ulcer, which one is only justified in associating with the graver forms of phagedæna above described, by its corresponding exactly in appearance (although on an humble scale) with them, by its improving under the same remedies, and generally being worse for mercury, and by the existence of every intervening gradation.

For the treatment of the milder forms of phagedenic ulcer, there are to be recommended, as general means, good air, nourishing diet, with wine or porter, (the system being in good order and the body cool,) and, in addition, bark with nitric acid, or small doses of the iodide of potassium in decoction of sarsaparilla. Locally, nitric acid is again the most efficient application; but this painful remedy is not to be persisted in when the phagedenic character of the ulcer returns after each application, as soon as the superficial slough has separated. Then stimulants are to be employed, the Peruvian balsam, a solution of nitrate of silver, or the yellow wash. Every remedy of these classes commonly has to be tried in succession, or alternately with lint and simple ointment; the mere change of application seems beneficial. Nor must it be denied that occasionally a short and brisk course of mercury will give a new turn to the complaint, and cause these troublesome sores at once to close. This remedy, however, should be the last resorted to.

I have said nothing of the period which intervenes between exposure to infection and the appearance of this disease, as less is known upon this point in reference to phagedæna than to chancre, and the intervals observed by both are probably the same. I likewise postpone the subject of bubo till the same opportunity, the complaint being a rarer attendant on phagedenic ulceration than on chancre.

2. *Sloughing Phagedæna.*—Sloughing phagedæna, when produced by the irritation of the venereal poison, does not differ in any respect from phagedenic sloughing produced by other causes. In inquiring into the nature and treatment of the disease, we may, therefore, lose sight of siphilis, and look only to the general theory of mortification. Mortification is the death of a portion of a living body through the cessation of the circulation in it, and is so distinguished from the death of a part caused by chemical destruction of its organization. But mortification may be either determinate, as when a tumor mortifies upon the application of a

ligature; or it may be progressive, when the terms gangrene, sphacelus, sloughing, are used to denote it. There are further differences to be followed out under these heads. Progressive mortification may suddenly invade a large part, the extinction of life in which is gradual, and marked by the gradual alteration of sensibility, warmth, colour,—which form of progressive mortification is expressed by the terms gangrene and sphacelus. Or the part invaded may be of small extent, when the term sloughing is commonly used. And, finally, the mortification may spread by superficies alone, layer after layer of inconsiderable thickness successively mortifying. The term phagedenic sloughing particularly expresses the last shade of difference.

Progressive mortification, again, may depend (omitting mention of others) upon either of two causes: it may be produced by a high degree of inflammation, especially when that inflammation supervenes upon parts previously irritated; secondly, however originally excited, it may be maintained, independently of any other cause, by the contact of the part last mortified with the living and healthy texture with which it is continuous.

Sloughing phagedæna exemplies both of these forms, of which the first constitutes the least serious case. It supposes some sore existing, a chancre or other ulcer, and an inflammatory habit,—inflammation superinduced upon the sores, and the sores sloughing. This case has to be treated like the inflammatory kind of virulent phagedenic ulcer. Blood is to be taken freely, soothing remedies locally applied, and a strictly antiphlogistic regimen pursued. The case already given from Dr. Fergusson's paper, at page 6 of the introduction, sufficiently shows the advantage of this practice in inflammatory sloughing phagedæna. The consequences of passing over the time to let blood are exemplified in the following case narrated by Mr. Rose:—T. Clarke, aged twenty-one, of a full habit of body, was admitted into the Coldstream Hospital with six or eight deep irritable sores on his internal prepuce: the surface of these was covered with a dark-coloured slough; they had thickened and highly-inflamed margins, and discharged a very acrid ichor. He complained of much headache and thirst; had a quick pulse, and other febrile symptoms. The sores had been present three days, and were perceived a week after a suspicious connexion: the glands in each groin were enlarged. He was ordered a brisk dose of jalap and cream of tartar, six grains of antimonial powder, and a small dose of Epsom salts every four hours. A cold cataplasm was applied to the part. On the fol-

lowing days the febrile symptoms were much increased. He had restless nights, frequent cold chills, much headache, and a constant irritable cough. His tongue was covered with a white fur; his pulse was quick, and not easily compressed; and his skin hot and dry. He had much pain in the sores, which were rapidly extending and running into one another; a dark-coloured inflammation surrounded them, which terminated immediately in gangrene. [*At this period, looking back at the history of the case, it is evident he should have been freely blooded.*] He had been freely purged: the cold lotion was laid aside, and the decoction of poppies used as a fomentation. On the third day the sloughing had extended, and a considerable portion of the corona glandis was destroyed: a hæmorrhage took place from it this morning, by which he lost a pint of blood; the artery was tied. Equal parts of balsam of sulphur and oil of turpentine were applied to the sore, and the cold lotion was again had recourse to. The following day the sloughs had no disposition to separate; and on the body of the glans, anterior to the margin of the sore, several dark-coloured spots had shown themselves. He had violent burning pain in the glans; his face was flushed; his tongue covered with a brown fur; and his pulse 102. The day after, he had two returns of hæmorrhage, but not to a great extent; he was somewhat less feverish, but weaker. The prepuce was slit open, the sore dressed with compound tincture of benzoin, and a fermenting poultice applied over it. He was ordered beef-tea, ammonia, and Dover's powder, at night. The next twenty-four hours the burning pain was relieved, and nothing recurred to interfere with his recovery.

In the second form of sloughing phagedæna, the inflammation which may have helped to convert a sore of ordinary character into gangrene, plays no further part: there is but the sloughy surface, either black and dry, a crust of superficial mortification, or a moist ashen layer of dead tissue, which keeps separating in soft flocculi and putrid shreds, the skin showing a narrow livid line of gangrene, which keeps its pace with the separation of the slough. The following cases, by Mr. Lawrence, exemplify some of the features of the disease:—

"Louisa Gardner, aged eighteen, for the last three weeks had been in the streets, drinking and living in continual indiscriminate prostitution. She had been diseased for a fortnight, at first slightly, but more seriously for the last few days. During the latter period pimples had arisen on the labium, had become red and painful,

and then spread into a large sore, which had increased rapidly, with some pain, entirely depriving her of rest. At the time of admission, the external organs generally were red, swelled, excoriated, and superficially ulcerated; and there was copious discharge from the vagina. On the left labium, and the neighbouring part of the mons veneris, where the parts were swelled but not reddened, there was a sloughing phagedenic sore, three inches long by one in breadth, which had attained that size in the last three or four days. The surface, which was excavated and disorganised, reddish, greyish, blackish, and bloody at various points, and bounded by a sharp, ragged edge, afforded a copious ichorous and offensive discharge. Excepting that the severe pain had impaired the appetite and rest, the general health was undisturbed. The appearance and expression of the countenance were those of a healthy young person."

"John Reed, aged thirty-two, a seafaring man, who had been much in hot climates, and suffered considerably from intemperance and illness, had lately returned to England, and been more intemperate than usual. Three weeks previously he contracted venereal disease: sores appeared on the prepuce, and excoriation was observed on the scrotum and inside of the thigh. The latter had increased in extent for a week, when a portion near the centre began to look black, and to be extremely painful. He was brought to the hospital in the night (the third after the commencement of the phagedæna) in a state of great agitation and alarm, with involuntary tremulous movement of the extremities: forty minims of laudanum were administered, but did not procure sleep, and he endeavoured to leave the ward under apprehensions of what might be done for his complaints. There were four sores at the base of the prepuce—a larger, with an indurated base, and three smaller, all in a favourable state. The outer side of the scrotum and the corresponding surface of the thigh were bright red. In the middle of the fold, between these parts, there was an ulcerated opening, as large as a crown-piece, three quarters of an inch in depth, with an irregular black surface, and an abundant fetid discharge."

The treatment of this formidable malady is extremely simple, and uniformly successful, if resorted to early. It consists in the application of nitric acid to the gangrenous surface. If this is sufficiently done, the acid penetrating the slough destroys the surface about to mortify, and with that extinguishes the gangrene;

seemingly by substituting the contact of textures chemically destroyed and altered, for that of textures dead through progressive mortification. The depth of slough required is about a third of an inch, including depth of gangrenous surface and of that in contact with it. Care is to be taken to keep the parts free from moisture afterwards, by applying dry lint, which is to be frequently renewed, the parts being washed each time. The pain produced by the caustic is severe, lasting several hours; and a strong dose of laudanum should be given after it. The acid converts the diseased surface into a brown eschar, which begins to separate about the third day, and, when detached, exposes florid, healthy granulations, which cicatrise rapidly. But the progress of cicatrisation may be interrupted either by threatening of phagedenic ulceration, for the treatment of which rules have been already given, or by the part assuming an unhealthy aspect, which may call for the use of mercurials, and the topical application of the black wash.

To render this short account of the disease more complete, I borrow the following case from Mr. Carmichael's treatise, the particular points in which require no further comment:—A gentleman, who was familiar with the venereal disease in his own person, was alarmed five days after a suspicious connexion at the appearance of a small pimple on the prepuce. Without further delay, he pinched up the part of the prepuce on which the pimple was situated, and snipped it off with a pair of scissors. The wound healed like a common sore, but he observed that the cicatrix was tender, and of a deeper colour than the surrounding skin. A month after this operation, while the cicatrix was still tender, he was again exposed to infection. The day afterwards, an unpleasant sensation induced him to examine the penis, when he perceived on the cicatrix a dark and gangrened spot, without any surrounding induration or inflammation. In six days the blackness had increased, attended with inflammation of the surrounding parts, and a disposition to phimosis. He was advised to remain at rest, to take opening medicine, and to apply bread and water poultices to the affected part. Three days after, August 17, the swelling and inflammation of the prepuce had increased, so that it was with difficulty any part of the glans could be denuded. There appeared on the right side of the glans, and immediately in contact with the ulcer of the prepuce, a black slough, which extended as far as could be examined. At the same period, the

slough on the prepuce had separated, and left a phagedenic ulcer. Opening medicine repeated, and a lotion of decoction of bark with tincture of myrrh, seven ounces of the former to one of the latter, injected frequently between the glans and prepuce: it caused no pain. 19th—The patient being discontented that mercury was not exhibited, half a drachm of mercurial ointment was allowed to be rubbed in daily. 28th—The mouth had become slightly affected, and at the same time the pain, swelling, and inflammation of the penis had considerably increased. The prepuce could not be retracted, but thin ichorous matter, mixed with particles of sloughs, constantly distilled from beneath it. The injection of warm water once now gave pain. He was desired to desist from the further use of mercury, and to take thirty drops of antimonial wine three times a day in six ounces of sarsaparilla, and to apply poultices of bread and water to the penis. Under this treatment amendment soon followed; the swelling and inflammation diminished, and the discharge became thicker and of a better quality.

Matters continued to go on well till the 12th of September; but on this day he was chilly and feverish; and on the following day the fever was considerable, attended with great lassitude, thirst, and pains in the knees, extending down the tibiæ. 14th—There appeared, on a part of the prepuce hitherto unaffected, a small black spot, like the first that was observed; and on the 15th this slough separated, leaving a round hole which passed qe through the prepuce, and formed an ulcer, which afterwards extended along its internal surface. A drachm of mercurial ointment was now rubbed in every night at the patient's earnest request. In five days his mouth was affected; and at the same time the ulcer, which exhibited the true phagedenic character, grew more powerful, and spread with such rapidity as to destroy in two days a considerable portion of the prepuce. At this period, he also gave trial to cinnabar fumigations to the ulcer. 26th—But as it soon became obvious that mercury in every form was injurious to the ulcer, he was at length prevailed on to desist from its further use, and to take in its place five grains of extract of hemlock three times a day; which was increased on the 28th to six grains four times a day. This dose, exciting unpleasant sensations in his head, was not increased; but it lessened the pain of the ulcer, and put a decided stop to its progress. October 2d—A tight band of skin was divided which connected two portions of

the ulcer together, and seemed, by keeping the parts in a state of tension, to excite irritation. After this he found himself considerably relieved, and passed a better night than he had done since the commencement of the complaint. Next day, the ulcer appeared less irritable; and on the 5th, the amendment was obvious. On the 10th, part of the ulcer had already cicatrised without granulations, and in a week afterwards was completely healed; till when, he continued the use of the hemlock. He had, however, lost a considerable portion of the glans and prepuce.

On the 20th, after enjoying the air, and recovering considerably his strength, he felt uneasiness in the bones of his cheek. Two days afterwards, there was a considerable enlargement of the maxillary bone (periosteal swelling?) attended with redness of the integuments, so as to threaten a rapid ulcerative process. The treatment now adopted was the exhibition of one-sixth of a grain of the oxymuriate night and morning, with a pint of decoction of sarsaparilla daily, and the benefit of country air. Four days afterwards the tumours began to subside; and in less than eight days, sores totally disappeared. Seen after a long interval, this gentleman had remained perfectly well.

SECTION III.

Of Chancre.

Under this head may be comprehended the various forms of ordinary siphilitic sores, or of those which are most certainly the result of siphilitic infection, and which in a large proportion of instances give rise to constitutional lues. The study of this class of sores is encumbered with difficulties which do not present themselves in the study of phagedæna. There is, it is true, a doubt as to the source of phagedenic disease, and an uncertainty as to its secondary effects upon the constitution, greater both, perhaps, than attach to the parallel questions in chancre. But there is no difficulty as to the diagnosis or treatment of phagedæna; the features of each form of the disease being distinctly marked, and the practice to be pursued being deducible from the ordinary principles of surgery. In chancre, on the other hand, the local appearances do not differ from those which may arise from common inflammation; and if the opinion of surgeons throughout the civilised world were taken, it would probably be found to be

pretty equally divided as to whether or not a specific treatment is requisite. The practical difficulty, however, to which I advert, will find a place for consideration afterwards: at present we shall have enough to do with that which attends the diagnosis of chancre.

We may begin by calling to recollection the appearances of common inflammatory ulcers; of such, for instance, as are occasionally seen upon the legs of young or middle-aged persons whose health has become deranged. In the cases referred to, several ulcers often form in succession; the phenomena attending the production of each of which are these:—There is a patch of inflamed skin, in the middle of which appears a small circular area of white epidermis; an appearance arising from the latter being detached from the cutis by effused lymph. In a day or two, the spot of separated epidermis is larger, is slightly elevated, and pus is contained below it. The cuticle breaking, a shallow circular ulcer is seen, the surface of which is covered by unorganised or imperfectly organised lymph. As the ulcer enlarges, its figure continues circular. The tissue forming its border is more or less red and inflamed, condensed, and thickened. The surface is more or less excavated, and exhibits no granulations; or the ulcer is a mere hole, dug by progressive absorption, in the inflamed tissue, the texture of which, very slightly altered by the lymph effused into it, you recognise when the adhering moisture or gelatinous secretion is wiped from it. The surface exposed has, in different instances, more or less vascularity, and more or less coagulated matter adherent to it.

Now if we look for points in the appearance of a chancre whereby essentially to distinguish it from these or other common sores, it must be admitted there are none. Chancre can but be described as *an ulcer more or less circular, without granulations.* But it is to be added, that a chancre *is a small ulcer;* and when we inquire as to its increase, we discover that *it enlarges slowly, and has a tendency to preserve one appearance.* The latter features alone are those which enable a surgeon to discriminate chancre from many ulcers on the genital organs that are merely of inflammatory origin. An ulcer, for example, left by herpes of the prepuce may, if irritated, or even from mere neglect, assume exactly the appearance of a chancre. But in three or four days, with proper treatment, its suspicious character becomes changed for that of a healing sore. If it is not so changed, nothing can

remove the probability (derived from its place, appearance, and permanency of character) of the sore being chancre, or lessen it, except contravening circumstances in the history of the case: and, out of a certain number of instances, a surgeon must inevitably be occasionally in error, and consider a sore siphilitic when it is not; as I have already shown that he must occasionally pass over, and treat as common sores, ulcers looking like common sores, through which the venereal virus is finding entrance into the system.

The difficulties which I have enumerated as attending the diagnosis of chancre appear more formidable, however, when thus theoretically arranged, than they are found to be in practice. Not but that many cases present themselves in which neglect of the complaint and accidents of inflammation so disguise its character as to produce much ambiguity; but when these are absent, which much more frequently happens, a siphilitic sore presents one or other of certain determinate forms familiar to practical surgeons, which it is easy to enumerate and to portray.

Chancre, then, I would describe as a sore more or less circular, beginning by a small vesicle or pustule when the epidermis is entire; otherwise, as a small ulcer; having a tendency to very slow increase, and to preserve one character; its surface being without granulations, the edge well defined; and the base and edge being either very much indurated, or only firm to the touch, which is more common, this firmness even being in some cases evanescent: and the varieties of chancre I propose to group under the two heads of indurated sores, and those which are unattended with marked induration.

A remarkable feature, most useful in the diagnosis of ambiguous cases, and common to both kinds, is, that they are rarely numerous: generally but one or two are seen, seldom more than three; and the second and third often break out after the first. The reason of this circumstance is very obvious: pains are generally taken to prevent infection, so that the contagious matter has always a great chance of being wholly removed, and otherwise is left at one or two points only. Perhaps even some slight extent of cuticular abrasion may generally be required to allow of the absorption of the venereal virus. On the other hand, when vesicles, pustules, sores, break out from heat of blood or local irritation, they naturally manifest themselves at several points simultaneously. Nevertheless, it occasionally happens that several chancres appear together.

I. *Indurated Chancre* presents the following varieties:—Ulcer with cartilaginous induration of the base and edge, not extending far beyond the latter,—ulcer with great development of surrounding cartilaginous hardness,—blind cartilaginous ulcer, the ulcer drying up, the hardness remaining,—diffused firmness round the ulcer,—the same ulcer in a blind form. These appearances will be successively described.

1. Mr. Hunter has described the indurated chancre in these words:—"The sore is somewhat of a circular form, excavated, without granulations, with matter adhering to the surface, and with a thickened edge and base. The hardness and thickening are very circumscribed; not diffusing themselves gradually and imperceptibly into the surrounding parts, but terminating abruptly." Venereal ulcers, exactly answering this description, are met with upon the corona glandis, and on the inner and outer præputium. The hardness approaches that of cartilage, so that the ulcer, at an early period, feels like a little cup of cartilage set in the flesh.

Indurated chancre is seldom seen to attain any great magnitude; its extreme limits are commonly between a third and half an inch in diameter. This, however, it may be presumed, depends not more upon its sluggishness than upon its early subjection to treatment. I have seen an indurated chancre an inch and a half in diameter on the inner surface of the external labium. The patient, who was a respectable married woman, had known there was a sore on the part for six weeks. Not at first suspecting its source, I ordered anodyne poultices and a mercurial wash alone. Soon after this the patient fell ill of bronchitis; on recovering from which, after a protracted illness, I learnt that the sore was better, but of considerable size still. In four months altogether from the first appearance of the sore, she was attacked with siphilitic psoriasis of the throat, upon which she took mercury and recovered. About the same time, to clear away all ambiguity from the case, her husband became my patient, with siphilitic disease in the ulcerative form.

Mr. Carmichael observes that "chancre, when situated on the body of the penis, is of a dark livid colour; the ulcer is not excavated, but is on a level with the surrounding parts. It is attended with less induration than the excavated chancre, and is, in general, from the size of a sixpence to that of half-a-crown; and even, sometimes, it extends round the body of the penis. Its

edges are a little raised, and the surrounding induration very perceptible to the touch, although not in so great a degree as in the chancre described by Hunter. The livid surface is alternated every third or fourth day with that of a light brown or tawny colour."

2. The extent to which it is possible that the characteristic induration attending chancre may reach, when the cellular texture of the prepuce is invaded by it and lends itself to it, is well exemplified in the case of Evan Pugh, aged 60, reported in a clinical lecture by Mr. Lawrence. In this patient, "the integuments of the penis and the prepuce were inflamed and swollen, and the latter could not be drawn back, although its orifice was not much contracted. There was copious puriform discharge. Just within the prepuce, at its lower part, two ulcerated prominences could be seen: these prominences, each of which was as large as the end of the thumb, were at first supposed to be at the end of the glans in a state of ulceration." The glans, however, was found, on a more careful examination, to be behind these prominences, which proved to be an enormous induration surrounding a single ulcer. The ulcer healed, and the prominences disappeared under a course of mercury.

3. Sometimes the extent of the surrounding induration is utterly disproportionate to the size of the ulcer, which has the appearance of a small hole in a nodule of condensed texture. The little ulcer on the nodule of cartilage sometimes closes, or skins over after a few days. It remains, indeed, liable to ulcerate anew; but if this does not happen, the permanence of the nodule alone may be considered evidence of local primary venereal action. The nodule left by an indurated chancre is sometimes considerable enough to form a prominent lump. One that was of the bigness of a pea I was requested, some years ago, by the patient, a medical student, to cut out: he said that he had taken mercury a few weeks before, and that this lump had remained where the sore had been. I cut it out, and the wound closed healthily; in a short time he was attacked with siphilitic psoriasis.

4. It occasionally happens that the abrupt boundary of the induration, on which Hunter laid stress, is masked by common inflammatory condensation of the surrounding parts. In one of the most obstinate cases of chancre which I remember, the ulcer, which was an excavation that would hold a pea, was situated at the edge of the glans, and the surrounding texture, both of the

body of the penis and the glans, was condensed to the extent of half an inch, beyond which the hardness gradually terminated.

5. The cellular texture of the prepuce renders it easily susceptible of this kind of diffused hardening, which, like the cartilaginous sort, sometimes assumes the form of a blind chancre. It is thus described by Mr. Babington:—"It is not uncommon that a primary venereal sore should assume the following characters:—A portion of the prepuce, of about the size of a silver penny, shall become slightly thickened, so as to lose its natural flexibility; and perhaps the surface shall be slightly excoriated. In the course of a few days, if the part is kept very clean, the excoriation shall in many instances disappear, but the hardness shall progressively increase, assuming a more defined character, and at last forming a large flat mass of the size of half-a-crown, so inflexible and rigid that the prepuce cannot be everted without difficulty. There shall be no tenderness, no inflammation, sometimes no ulceration at all; at other times only a slight dark-coloured excoriation of the surface."

II. *Chancre without marked induration.*—The best method that occurs to me of conveying a faithful idea of the varieties of sores of this class, is to describe the appearances which they present when occurring on different parts.

1. Chancre without marked induration occurring upon the glans penis, is circular, excavated, with yellow secretion adhering to its base; the border not elevated, but for the breadth of half a line being of a bright red.

2. At the fossa of the corona glandis and of the prepuce, the little ulcer is at first deep—a cup containing a pellet of whitish secretion, which appears to have suggested to Mr. Bacot the term aphthous ulcer. As it enlarges, the ulcer becomes shallow; and in both these situations its figure is liable to become irregular, spreading in the one case on the edge of the corona glandis, in the other tunnelling through beneath the frænum, which is often divided by ulceration. As the ulcer enlarges, its surface, cleared of adhering secretion, is vascular, of a mottled red, uneven; the edge very cleanly cut, transparent, and of a bright red. If the habit of body of the patient is heated, or the part neglected, considerable general œdematous hardness supervenes round such ulcers.

3. Situated on the lining of the prepuce, its anterior edge a quarter of an inch from the corona—an extremely common place—such an ulcer is strictly circular; its surface slightly dished,

of a reddish-grey colour, with numerous little excavations in it: the edge, clearly defined, is either sharp, turned upwards but not everted, with a remarkable transparency; or is surrounded by a slightly raised but flat border, that is perfectly distinct, although narrow.

4. Situated at the angle where the lining of the prepuce is reflected upon the body of the penis, such a sore appears to have a depth which does not really belong to it. It is formed of a circle, with a hinge at one of its diameters. If there is œdematous swelling of the prepuce, such a sore appears very deep, and being liable to be covered with dark-coloured adherent secretion, it may be mistaken for the commencement of a burrowing phagedenic ulcer.

5. Upon the outer surface of the prepuce, or on the integument of the penis, such an ulcer begins as an oval pustule, which heals, and scabbing over, is covered for a time with a crust of dried pus; if seen on the pustule breaking, its surface would have been found slightly sunk, but level, covered with a layer of ash-coloured secretion.

When an ulcer of the present class has existed some time, it occasionally, like other ulcers that are unprogressive and yet not healing, becomes covered with fungous granulations, that are raised above the level of the surrounding skin. The raised surface is flat and smooth, and of a greyish-red colour, that is to say, not highly vascular; it is not indurated, but it has firmness enough to prevent its being crushed by slight pressure. Such a raised ulcer is liable to skin over in this state, when it remains a dry flat nodule, of the same degree of firmness as the ulcer which preceded it, and to which state it is liable to return.

Chancres upon mucous surfaces, in the male urethra, or in the vagina, internal to and free of the cutaneous texture of the labium, are commonly attended with very little hardening or inflammatory firmness. In the male urethra they may be occasionally seen presenting this character, when their circle all but reaches the orifice. When occurring lower down, their existence can be determined only by the local tenderness. Sometimes, however, there is considerable induration round them. In the vagina on the inner surface of the outer labium, and from thence to the cervix uteri, chancres are found that are small and without induration, that are remarkably indolent in their progress, and slow in affecting the constitution of the patient herself.

I have thought it better to give the preceding account of certain varieties of sores unattended with marked induration, which I

believe to be truly siphilitic, before adverting to the descriptions of varieties (as I believe them to be) of the same sores as given by Mr. Carmichael, and by Mr. Evans, and to the different views entertained by those writers respecting these varieties. I have the less hesitation in supposing that Mr. Carmichael's descriptions, of which I have immediately to speak, include the sores specified, as Mr. Evans appears to me to express the same opinion.

Mr. Carmichael describes, under the title of *superficial ulcer without induration, but with elevated edges*, a sore of which to those, its principal characteristics, may be added, " that it sometimes displays a whitish, and at others a brown surface, without any appearance of granulations. It is not excavated, but is either on a level with the surrounding skin, or considerably raised above it; yet it is necessary to observe, that it sometimes seems indurated to the eye, and the elevated edges of this ulcer give it the appearance of excavation. At its commencement it appears in the form of a small pustule, attended with itchings of the part."

Under the title of *ulcer, destitute not only of induration, but of elevated edges*, Mr. Carmichael describes a sore " raised above the surrounding skin, that exhibits a smooth surface, the colour of a healthy sore, but without granulations, and has somewhat a fungous appearance. Sometimes it is in a line with the surrounding surface, and *seldom is excavated*. These ulcers, which are far more general than any other to which the parts of generation are liable, vary from the size of a pea to that of half-a-crown, and are more frequently found on the glans and internal surface of the prepuce than elsewhere."

Now the first of these sores Mr. Carmichael has never seen followed by constitutional symptoms, and the latter he views as leading, in common with virulent gonorrhœa, to papular eruptions and other features of constitutional affection, distinguishable from the consequences of indurated chancre.

It is difficult satisfactorily to place these two kinds, described by Mr. Carmichael; but of the first, it strikes me that it is made to comprehend dissimilar cases. Of the five cases which are given, the third and fourth are crops of common ulcers from irritation; the fifth probably a chancre; and the first and second uncertain, but obviously not authorising mercurial treatment. Nor does it follow that because these patients did not apply afterwards for advice, none of them had not secondary symptoms. The instances given under the second division are fungous ulcers

that might have followed simple ulcers from irritation, while others of them may have followed unindurated chancres, a portion of them only being the same which Mr. Evans appears to mean by venerola vulgaris.

Under that term, however, Mr. Evans condenses both the preceding kinds of ulcers, believing them to be one in two successive stages. He describes the venerola vulgaris, or ulcus elevatum, as "more frequently met with than all other ulcers of the parts of generation put together," and as presenting the following definite stages:—"being pustules for the first four to six days, scabbed till the tenth day, the scab covering a concave ulcer of the oval or circular figure, with a surface of a glossy brown, an unhealthy red, or more frequently a dirty yellow colour; from hence to the eighteenth day, the elevation of a fungous growth above the surface of the surrounding skin taking place and increasing: then follows a stationary period, after which the ulcer declines and heals, leaving eventually, where the thickening was, a permanent depression." In another passage Mr. Evans observes, "When situated behind the glans, at the junction of the integuments with the body of the penis, this ulcer has sometimes in its second stage an *excavated* appearance, like the calyx of an acorn; *in these cases there is often a great degree of hardness surrounding it*, which, however, seldom continues longer than through this stage, generally disappearing on the commencement of the third." So Mr. Evans's venerola vulgaris approaches very nearly, and probably was sketched from what I have described as unindurated chancre: my reasons for preferring my own account of the complaint, in which it is grouped with indurated chancre, to adopting Mr. Evans's systematic separation of venerola vulgaris from that and other sores, are principally these:—I believe, as I have already expressed, and as the last quotation from Mr. Evans seems to admit, that the induration in these sores is essentially variable; that all shades of it are met with; while, in each, the sore is truly siphilitic, which Mr. Evans denies. His venerola vulgaris he holds to be essentially different from chancre, and to be either not benefited, or made worse, by mercury. Yet the following passage, which I shall further quote from his book, allows one to gather that he believed in one most important affinity between venerola and chancre. "The differences between venerola vulgaris and chancre," he observes, "consist, first, *in it not, as a general rule, being followed by consecutive diseases where*

mercury is abstained from; secondly, in not requiring the excitement of the mercurial irritation for its cure; and thirdly, in that irritation being either useless or injurious."

Mr. Welbank, in his "Commentaries on Siphilis," adopts Mr. Evans's belief in the existence of venerola, as a frequent disease, pursuing a determinate course, distinct from chancre. But he evidently finds great difficulty in drawing the line between the two, and in my opinion fails to do so. Nothing, however, can be more faithful than Mr. Welbank's own delineations of many features in siphilitic disease, of which I select some that may serve to fill up the picture already traced. "When chancre," observes Mr. Welbank, "is situated in the fossæ of the corona glandis, frænum, or prepuce, it is sometimes attended with considerable excoriation, which at first masks the more virulent complaint." Of chancres on the inner prepuce, situated near the glans and frænum, he remarks, that on retracting the prepuce so as to throw forward the ulcerated surface, the latter "will sometimes appear elevated in regular convexity, and exhibit a tawny or deep crimson colour." Of chancres of the integument, "they are usually of a deep red or tawny colour, more frequently oval than circular, and something raised above the common level." Speaking of primary siphilitic induration of the skin, he says, "convexity of the surface formed by large loose granulations may be sometimes seen in the large tuberculated chancre, on the exhibition of mercury. The half-healed, half-excoriated, brown-red tubercle, then becomes of a raspberry tint, and exhibits large flabby granulations." Mr. Welbank finally adverts to the indurated and excoriated state of the extremity of the glans, when the orifice of the urethra is the seat of chancre; and he particularises the flocculent, shreddy, or villous surface, which is often seen in ulceration of the glans.

It is an important desideratum to ascertain whether, according to Mr. Evans's conjecture, chancres without marked induration are less frequently followed by lues than the indurated ones. It is probable that this would at first, at all events, appear to be the case, as the accidental adoption by a common sore of the character of unindurated chancre must be easier and more frequent than going into cartilage-like induration.

Primary siphilitic disease is commonly already an ulcer before it attracts notice; so that any general account of its earliest appearance must be conjectural. But there is no reason to doubt

that on an abraded surface, or an excoriation, the first appearance would be an ulcer; and when the skin is entire, opportunities occasionally present themselves of seeing the disease as a pustule, and even as a vesicle containing an opaque lymph. The latter, it is probable, is the ordinary local commencement of the disease. I have seen the disease commence by a vesicle on the inner preputium, and existing, in its pustular form, on the skin of the penis. These observations are occasionally to be made when, from neglect of cleanliness, fresh infection takes place from the original chancre.

The period which intervenes between exposure to infection and the appearance of a chancre is indefinite. It commonly varies from twenty-four hours to a week; but the interval may be much longer. "I have known cases," says Mr. Hunter, "where the chancres appeared twenty-four hours after the application of the matter, and I have known them seven weeks. A remarkable case of this kind was a gentleman who had not had sexual intercourse for seven weeks, when a chancre appeared, which was proved to be venereal by his having had the lues venerea from it, and being under a necessity of taking mercury." An instance came under my own observation in which the interval was something greater. A gentleman had a chancre upon the inner preputium, which he had known the existence of for ten days. He assured me that he had had no sexual intercourse for more than eight weeks before he observed this sore. Within a fortnight of the time I speak of, he was attacked with siphilitic psoriasis of the most virulent description.

It is through the experiments of Ricord that we are finally able to reconcile the anomalies that are observed as to the period of the appearance of siphilis, and to determine with certainty the mode of its development. These experiments, by the general uniformity of their results, establish that the indefinite time which intervenes in the ordinary infection of siphilis, between contagion and the manifestation of the disease, is attributable to some agency external to the vascular cutis, the seat of which and the cause must be the epidermis and its greater or less permeability in different parts and in different persons; and they prove that the order of the phenomena in the development of chancre is, first, the production of a vesicle; that next becomes pustular; and then, breaking, discloses an ulcer. The experiments consisted in the inoculation of persons affected with chancre with

the matter from their own sores on some other surface. M. Ricord usually made these inoculations upon the thigh. The following is the summary of his observations upon the artificial chancre so produced:—

"During the first twenty-four hours the point of inoculation reddens; from the second to the third day it becomes slightly swollen, and presents the appearance of a pimple with a red areola; from the third to the fourth day the epidermis, raised by a liquid more or less turbid, takes the form of a vesicle; from the fourth to the fifth day the turbid secretion has increased in quantity, and become purulent. The vesicle becomes a pustule, and having a depression in the centre, bears a resemblance to the pustule in small-pox. At this period the areola, of which the breadth and intensity of colour have increased, begins to contract, especially if the disease is not progressing; but from the fifth day, the subjacent textures, which often as yet have undergone no change, or which were only slightly œdematous, are infiltrated and hardened by the effusion of plastic lymph, which yields on pressure the resistance and elastic feel of cartilage. Finally, after the sixth day, the pus thickens, and a crust or scab begins to form: when this separates, an ulcer is exposed, which, based on the firm texture that has been described, is hollowed to the thickness of the skin, and presents a surface of false membrane, white, or grey, or lardaceous. The borders of the ulcers are circular, cleanly cut, as if made by a punch, are nevertheless detached (*décollés*) for a greater or less extent, and when examined with the microscope, present shallow indentations, and a surface resembling that of the base. The skin immediately surrounding the ulcer is thickened, firm, slightly elevated at its border, and is coloured of a reddish brown mixed with a violet tint."

M. Ricord mentions that he has thus inoculated from primary siphilitic sores in more than four hundred instances, and that the result which has been described had never failed to follow. The few observations of the same kind which I have had a proper opportunity of making, lead me to attach great faith to M. Ricord's statements; but I think that he may have given a degree of precision and accuracy of outline to his description of the artificial sore beyond what the facts may have warranted. I cannot say that I have observed the marked induration which he describes supervening at the fifth day, nor has the hardness which I have witnessed amounted to more than I should express by the term

firmness; such a firmness as from analogy should be produced by common inflammatory effusion into the texture of the skin surrounding the ulcer, and of the tissue beneath the surface of the ulcer. But I must admit that I have repeated these observations in very few instances; and in one, the edges of the ulcer, which was produced by inoculation upon the fore-arm, from the matter of a bubo following unindurated chancre, certainly did present, at the expiration of three weeks, cartilaginous hardness. The sore was indeed a very remarkable study: it was entirely without pain, unless pressed; circular; sunk, as if the entire thickness of the skin had been removed; slightly dished or excavated; the surface red, and secreting pus, and hollowed into numerous little irregular excavations; the zone of skin immediately surrounding it raised into a hard, red, cartilaginous, convex collar; and its free edge, or that towards the ulcer, hemmed as it were by a narrow line flattened and sunk a little, when, from the undermining ulceration, the cartilaginous border had lost for that extent something of its support. This ulcer had been at first two or three times touched with caustic, and was then neglected, having been supposed to be healing, while my attention was confined to the opened bubo, the edges of which had put on a somewhat similar appearance. The artificial chancre and the ulcerated bubo got well under a protracted course of mercury: when at its largest, the former was nearly an inch in diameter.

It may be observed, that experiments to produce venereal sores by inoculation had been made by several before M. Ricord, from Hunter downwards; but all that had previously been made were desultory or inconclusive; and to M. Ricord is due the credit of having first systematically instituted a series from which positive inferences can be deduced. M. Ricord appears, indeed, to have thus established a certain criterion between siphilitic sores and sores of other origin. As affording a practical test of chancre, however, his method does not carry with it positive certainty, inasmuch as inoculation from a phagedenic ulcer will, as I have shown, produce the same artificial sore as inoculating from chancre; so the result he obtains is only an approximation, and requires still to be checked by the observation of certain points in the appearance of the suspected sore; not to mention that, to be practical, a method must be one which can uniformly be adopted. But there are objections to the production of the artificial sore, of which not the least are the length of time necessary for

its development, and its intractable nature, when it has been allowed completely to manifest its character.

In a theoretical point of view, however, as settling some controverted points as to the common or different origin and nature of different venereal affections, M. Ricord's experiments appear to be not less interesting than conclusive.

In the same tables in which M. Ricord mentions having obtained the artificial sores from upwards of four hundred chancres or primary pustules, he mentions that inoculation in upwards of three hundred cases from secondary sores or pustules did not produce an ulcer in a single instance; thus completly confirming Mr. Hunter's experiments upon the latter point.

Another opinion, however, entertained by Mr. Hunter, upon a point of still greater interest, the experiments of M. Ricord go completely to disprove. Mr. Hunter held that the poison of siphilis and gonorrhœa are one and the same, the difference of effect resulting from the different character of the surface to which the virulent matter is applied. M. Ricord's numerous experiments on this question, amounting to upwards of three hundred, followed only by negative results, may be considered as having set it at rest for ever.* Nevertheless, it will be remembered that Mr. Hunter obtained an affirmative fact upon the point at issue, and that, by an experiment upon his own person, in which he inoculated himself with gonorrhœal matter on the glans and prepuce, he produced sores that were not indeed indurated, but which were followed by attacks of constitutional siphilis. This experiment, considering who was the subject of it, author, observer, and narrator, has always been a stumbling-block in the way of those who wished to entertain the unqualified belief that siphilis and gonorrhœa are not the products of a common virus. Of the various suppositions which would get over this difficulty, the circumstances of the following case point perhaps to the true one. I should observe, that I had several times inoculated persons affected with gonorrhœa from their own discharge, and, agreeably with M. Ricord's numerous observations, had found no pustule follow. But there was a patient who laboured at once under chancre of the prepuce and gonorrhœa, and whom I inoculated at the same time with the matter of both, taking care that

* I think that the facts mentioned at pages 110-11 of M. Ricord's work only show his candour, and do not the least impugn the validity of his general conclusion on the present point. However, others may think differently.

the gonorrhœal matter used should be obtained fresh from the urethra, unmixed with any external secretions; and I carefully applied a separate bit of sticking-plaster over each of the punctures. To my surprise, when I expected that the one puncture would lead to nothing, and the other produce a chancre, equal and similar sores were simultaneously produced by both. The explanation of this occurrence I found to be the following:—There was a small chancre in the urethra, immediately within the orifice, which could be distinctly seen on pressing the lips of the urethra apart. It was no doubt from this source that the matter flowing from the urethra derived the quality which enabled it to communicate chancre; and I have little doubt that the result of Hunter's experiment, so much at variance with the number which have now been made with pure gonorrhœal matter with no effect, is to be attributed to the like cause—to the matter employed having been taken from an urethra which was at the same time the seat of chancre.

I entertain, again, little doubt that the various cases reported by so many, of the same woman infecting indifferently either with chancre or gonorrhœa, admit of the same explanation. The person who has communicated the two diseases has had them both. M. Ricord has established the fact, that chancres often exist deep in the vagina and even on the os uteri. I believe, from observation, that such chancres, not external, in women, may remain for months in an indolent and unprogressive state. I attended a gentleman for three successive chancres, which he had caught, at intervals of a very few months, from the same woman, who would have it that she was in perfect health. At last she consented to allow me to examine her, when I found two small ulcers within the external labia, which got well under mercury. The story of the Portuguese opera-dancer, mentioned by Dr. Fergusson and already quoted, is doubtless to be explained in the same way.

SECTION IV.

Treatment of Chancre.

So much space having been occupied in the attempt to arrive at the diagnosis of chancre, I have next to consider its treatment.

The first element in the inquiry is the important fact, determined by the observations of the army surgeons of this country, that every form of venereal disease may be cured without mer-

cury. I have attributed to the late Mr. Rose the principal part in establishing this conclusion. His attention appears to have been drawn towards it by observing the practice pursued by the natives of Portugal in treating siphilis. He had opportunities of ascertaining that several of them, after sores which he had supposed to be venereal had been cured without mercury, continued in perfect health during a period of two or three years. A few similar instances came under his observation among our own soldiers, when it happened that the use of mercury was interrupted at early periods by the movements of the army, or other causes. "I had often wondered," Mr. Rose continues, "that in not one of these any ill effects ensued; but I could only infer that my opinion of the disease had been erroneous, although, in the cases to which I allude, it had been by no means hastily formed, and the sores had every characteristic of true chancres." Reflection upon these facts, and parallel instances that were communicated to him, led Mr. Rose to determine to make a sufficient trial of the non-mercurial treatment. Accordingly this plan was pursued in all cases of primary venereal sores, as well as in the constitutional symptoms to which they gave rise, that occurred in a battalion of the Coldstream, consisting of a thousand men, stationed in London, during a period of a year and three-quarters. The result was their uniform recovery, although it was certain, from the number affected and so treated, and from the appearance of many of the primary and secondary disorders, that a proportion of these cases must have been true siphilis. It further appeared that secondary diseases by no means constantly followed those sores even which presented the least questionable evidence of a siphilitic origin; and that the constitutional symptoms, when they manifested themselves, did not bear a more severe or inveterate character than after the use of mercury.

One important practical inference is immediately deducible from the facts thus verified. The administration of mercury for siphilis may be confidently abandoned in all cases in which, from accidental or inherited peculiarity of constitution, its use is likely to injure the system, or in which, in former or present experience, it has proved prejudicial, or in which a reasonable doubt may exist as to the nature of the affection under treatment. We may pause upon this point, and, postponing for the moment the consideration of the use of mercury in siphilis, first inquire what may be done without it—by what other means the disease may be

treated—in what other way the primary local affection may be speedily cured—and by what other means the chance of secondary affections of the system may be lessened?

In the first place, there is every reason to believe that when a chancre is in its earliest stage,—that is to say, while it is yet a vesicle or pustule, or the vesicle or pustule is but recently broken, and the ulcer is small and has little or no induration round it,—the disease may be extirpated at once by destroying the surface of the ulcer with nitrate of silver. It is therefore prudent, when, after risk of infection, a vesicle or small broken surface is seen, thus to treat it. One practical use of M. Ricord's experiments is to confirm the propriety of this practice. If the artificial chancre is touched with nitrate of silver within three or four days from the commencement of the vesicle, the slough produced is always followed by immediate healing. If the application of the caustic is delayed two or three days longer, it proves ineffectual; and when the eschar separates, there is but a larger ulcer of the character of that which preceded it. I have observed the same effect in ulcers of infection at the corresponding stages; and I confidently believe that a chancre, taken at the earliest period and thus destroyed, will not infect the system.

In the second place, if the sore, upon the separation of the eschar, presents again the character of chancre, or if the sore, when first seen by a surgeon, has already made some progress, yet is unattended with hardness and thickening, and there is no accidental inflammation present, the treatment by caustic may still be adopted or persevered in. Such is M. Ricord's general practice: he continues to apply the nitrate of silver till the ulcer granulates, dressing the sore with lint, wet with a stimulating tincture; to which, if it produce much pain, opium is added. Pain, however, it is to be observed, is an unavoidable attendant of this practice, and forms a serious argument against its use.

When local inflammation is present, the treatment by caustic is wholly inadmissible. Then, and in all cases indeed, either lint wetted with a saturnine and opiate lotion, or with the black wash, or water, or a bread poultice, are good applications. As general means, the body should be kept cool by low diet and occasional aperients, and the patient should abstain from exercise. The importance, indeed, of means calculated to reduce and cool the habit when inflammatory, supposing

the subsequent treatment to be either mercurial or otherwise, cannot be too strongly insisted on. Bleeding is occasionally necessary for this purpose; and its efficacy, where required, and that of an antiphlogistic plan in general, seems not only to conduce to the speedy healing of the primary sore, but even to the prevention of constitutional lues.

In the limited number of cases in which alone I am now arguing for the non-mecurial treatment, it is a question of less importance whether the ulcer heal something slower than if mercury had been employed. This question, abstractedly, is one upon which considerable difference of opinion prevails among the experienced army surgeons, to whose observations the profession is so much indebted for evidence we could have obtained from no other source. Dr. Thompson observes, that "under an antiphlogistic regimen, rest in the horizontal posture, and mild local applications, chancre and bubo have in every instance disappeared as speedily as he had ever seen them disappear in similar cases, where mercury had been employed." He mentions, in continuation, that Mr. Hicks had found the same result of the non-mercurial treatment in the men affected with siphilis of the 95th regiment, of whom he had the charge. On the contrary side, Mr. Guthrie gives, as the result of his own observations, jointly with those of Mr. Dease, Dr. Arthur, and Dr. Gordon, what I am induced to think more likely to be the general result of non-mercurial treatment on primary sores. "With us," Mr. Guthrie observes, "where the ulcer had the characteristic appearances of chancre, dry lint alone was generally applied to it; where these signs were less prominent, a variety of applications were used; but there were a great number of sores, both raised and excavated, on which no application made the least favourable impression for many weeks. They did, however, yield at last to simple means, after remaining for a considerable time nearly in the same state, several of them having become sores of a large size previous to or in the first days after their admission. If they were ulcers without very marked appearance, and did not amend in the first fortnight or three weeks, they generally remained for five or seven weeks longer; and the only difference in this respect between them and the raised ulcer of the prepuce was, that this often remained for a longer period, and that ulcers presenting the true characters of chancre required, in general, a still longer period for their cure—that is, from six, eight, to ten, twenty, and even

in one case twenty-six weeks, healing up and ulcerating again on a hardened base."

The concurrent testimony of Mr. Rose's cases, and of Mr. Bacot, go to the same conclusion. It is strongly confirmatory of its correctness, that M. Ricord, an habitual non-mercurialist, speaks of the same form of chancre which Mr. Guthrie found thus tedious without mercury—the indurated, namely—as proving, in his own practice, equally refractory, unless he deviates from his usual method and resorts to the specific. "Whatever may be the cause," he observes, "if it be certain that a well-directed local treatment leads very often to a complete cure of indurated chancres, *yet the cure so obtained is most commonly slow, and is liable to be imperfect.* The difficulty of thoroughly healing the indurated chancre by ordinary means, and the good effect of mercurials in its treatment, have been the principal reasons," M. Ricord continues, "which have caused this variety to be considered as the exclusive type of primary siphilis, and mercury to be its sole specific."

The importance of the occasional use of mercury in the treatment of the primary symptoms of siphilis is thus forced upon us, when we set aside the consideration of its agency in preventing the entrance of the disease into the system. We have now to turn our attention to the latter question, for the solution of which it is necessary again to refer to the mass of evidence collected by the diligence of the army surgeons. Not, however, to run into too great length, I shall confine myself to quoting the results of the analysis given in Mr. Bacot's Treatise on Siphilis, of the entire evidence so collected. The following are the words of Mr. Bacot's summary:—

"1st. That all sores of the genitals, without exception, are curable without mercury. 2dly. That *secondary symptoms occur in the proportion of at least one in ten in those cases where no mercury is used; whilst, on the contrary, the proportion of such cases is only as one to seventy-five where that remedy has been employed.* 3dly. The possibility of curing nearly all the forms of the secondary siphilitic symptoms without the assistance of a particle of mercury. 4thly. The mildness of these symptoms, which, excepting in about half-a-dozen instances, were confined to eruptions on the skin and ulcers of the throat. 5thly. That the period required for the cure of the primary sores by the non-mercurial treatment was not, in general, greater than where mercury was employed;

though it is admitted that the cicatrices of the sores remain frequently in a state of disease after ulcerating again, and that the secondary symptoms, when not violent, are very tedious, and when apparently cured, would not unfrequently recur again and again."

If this summary statement of the facts observed is tolerably correct, it leaves no doubt as to the general preferableness of the mercurial to the non-mercurial treatment, upon the ground of the greater security obtained by it against constitutional lues. Yet there is one feature put forward in it which is in favour of the non-mercurial treatment, and which is quite of importance enough to deserve examination: I allude to the alleged mildness of the secondary disease, where mercury is not given. Upon this point it appears to me that there is probably a fallacy. There are no sufficient reasons for believing that the judicious use of mercury tends to aggravate siphilis. The alleged mildness of the secondary symptoms, when mercury has not been given, has most likely arisen from the cases with which they are contrasted having been cases where mercury has been administered more by routine than with discrimination, and therefore often in excess. It is in the same manner that I am persuaded that Dr. Fricke, of Hamburg, one of the ablest advocates of the non-mercurial treatment, has suffered himself to be deceived. We read in Professor Graves's instructive lectures, as a point of unfavourable contrast to the mercurial treatment, that the venereal wards under Dr. Fricke's non-mercurial treatment are now fresh and properly ventilated, and that the patient leaves them with healthy looks; whereas formerly the foul smell of the wards could not be removed, nor the rooms nor beds kept clean, and "the air was tainted with the offensive odour of salivation and siphilitic caries." One does not wonder that, of the two alternatives, Dr. Fricke should prefer the former; but there is a mean between the two which may be preferable to either—namely, the employment of mercury, with the avoidance of the evils that often but not necessarily have gone with it.

Every observant hospital surgeon in London must have seen enough in his own practice to convince him of the efficacy of mercury in lessening the frequency of secondary lues. In the considerable number of patients who apply at the Middlesex Hospital with secondary symptoms, I find on questioning them that by far the majority have taken such courses of mercury as are considered by no one capable of extinguishing the disease. Occasionally, too, one has the opportunity of seeing protracted cases of primary

disease, where the patient has been late in applying for relief, and where the secondary symptoms break out early, and with suddenness and virulence, when, one is confident from the experience of other cases, the patient might have escaped had a mercurial course been commenced in proper time.

Thus, finally, are we led to consider mercury of an importance in the cure of siphilis, which rationally accounts for the strength and duration of the belief that it is a specific for the disease. What strikes one, in looking back to the history both of the disease and the remedy, from the time of Hunter to the present, is the following progress of men's opinions on the subject:—The recognition, first, of the most decided characters of siphilis, and the adhesion to the belief that mercury is its specific remedy. Secondly, the observation of many cases which got well without mercury, or the course of which was very equivocally influenced or even aggravated by mercury, and the impression that these were not true siphilitic disease. Thirdly, the multiplication of similar cases, as practitioners became bolder in relinquishing the use of mercury, and the establishment of some and the supposed establishment of other particular forms of venereal disease, to the treatment of which mercury was not applicable. Fourthly, the rejection of mercury altogether in all cases of venereal disease, and the proof that every case might be cured without it. Fifthly, the determination that mercury is nevertheless of use both in healing primary sores and in preventing constitutional lues; coupled with an uncertainty as to the exact cases where mercury is indispensable, and a constant doubt as to the quantity in which it should be used. This is our state at the present moment; and the error into which we are most likely to fall is, not the total abandonment of mercury, for no surgeon but will soon be driven from this practice by the fierce and early accession of secondary symptoms, which he will sometimes witness from its omission, but its indiscriminate use, and that, again, in excess.

The practical rules for the management of a mercurial course are few and simple:—It should be commenced as soon as the character of the disease is determined. It is probable that the delay even of a few days materially lessens its efficacy towards preventing constitutional lues. For the same reason, mercury should be given at once in a quantity, and in a manner, calculated to affect the system as speedily as is consistent with keeping clear of its injurious agency.

Now, if a surgeon wishes to affect the system promptly with mercury in any other complaint, experience has shown the most efficacious form to be two or three grains of calomel, with half a grain or a grain of opium, administered every eight or six hours. This is, therefore, the best method in the present instance.

The administration of mercury in this quantity is to be carefully watched, and the dose is to be lessened as soon as its effects distinctly manifest themselves. These, where mercury agrees (which cases alone are at present under consideration), are an unpleasant coppery taste in the mouth, and a swollen and tender condition of the gums. In the most favourable cases no further sensible effects should be produced by the mercurial course. The condition of the fauces which has been described, and which is the measure of the due extent of mercurial action, should be maintained as nearly as possible at the same point. For the rest of the course, the quantity of from five to ten grains of blue pill daily is commonly fully sufficient to secure the end proposed.

The duration of a mercurial course should be from five to six weeks. This is in part determined by the alterations of the sore. If the sore early loses its specific character, and begins to show a disposition to healthy granulation, and the hardness has at the same time disappeared, then the shorter period specified may be enough. Here, however, we but feel our way blindly, and want more light and certainty. The knowledge which we want can only be obtained through the means of observation possessed by army surgeons; they alone have the opportunity of keeping under observation a sufficient number for a sufficient length of time to ascertain the eventual success of any plan of treatment. It is to be hoped that, in the same spirit of exact observation which has been already displayed, we may before long have determined for us by positive experiment, the shortest period and smallest quantity of constitutional effect necessary to give a mercurial course full efficiency.

In conjunction with mercurial treatment, the local treatment should be the simplest. Lint wetted with water, or with a saturnine and opiate lotion, or the black wash, should alone be employed. But sometimes, when the hardness of the sore is gone and its surface remains stationary, it is of use to touch it with nitrate of silver, to destroy the indolent edge and stimulate action.

The diet should be plain; acids, and fruit, and green vegeta-

bles, and beer, being shunned. The patient's apartment should be well ventilated, and at a moderate temperature. Mercury renders a person more susceptible of cold; but, on the other hand, heat increases the naturally lowering tendency of mercury: so wine often becomes a useful medicine towards the close of a mercurial course. At the commencement of a mercurial course the patient had better not leave his room; exercise endangers the supervention of inflammation, and of the accidents of siphilis presently to be noticed. The bowels, again, should not be in a costive state either at the time of commencing mercury, or during the course. This is to be prevented by aperient medicine. Afterwards, going out daily is objectionable on these grounds alone:—the risk of irritating the part, or of incurring some of the consequences which exposure to cold, and still more readily exposure to cold and damp, produce. These risks being guarded against, the patient need not confine himself within doors. But it is to be observed that mercury does not affect the system so quickly or to the same degree, when the patient is daily and freely exposed to the air, as when he stays in the house.

We may now proceed to the consideration of the various circumstances through which a mercurial course may be rendered either inefficient and nugatory, or in addition dangerous—the accidents of a mercurial course.

It may be well to premise, that some are so sensitive to mercury, that the first dose of the remedy will bring on more or less of several of the effects that are presently to be described; that their invasion, where everything seems going on well, is often sudden and violent; and that the administration of mercury cannot, therefore, be watched with too much caution.

There are others whose constitutions seem hardly to admit of being affected by mercury. In these cases, confinement to a warm apartment, the use of the warm bath, and bleeding even, when not contra-indicated by other circumstances, may be employed with advantage. The preparation, again, of mercury may be changed; the Plummer's pill, or corrosive sublimate, may be given in place of calomel alone or blue pill; or the remedy may be applied externally, and introduced through the skin.

Corrosive sublimate may be administered in the dose of an eighth to a sixth of a grain, made into a pill with bread, three times a day. It is best to give it with food, which protects the stomach from its direct agency. For mercurial frictions, a

drachm of the strong mercurial ointment may be daily rubbed into the arms and thighs and legs. There are some whose systems can only be affected by a combination of the two methods, and with whom mercury then produces its customary and proper effects. But its use is not to be blindly pressed in every case of this sort, in the expectation of certainly attaining the desired end by perseverance: because, in the first place, any of the injurious effects presently to be noticed may suddenly supervene, the system becoming at last rapidly saturated with mercury; and, in the next place, it may be made evident by other than the usual signs that the mineral is acting upon the constitution. The patient may be paler, a little thinner, his pulse more frequent; he may be depressed and irritable; he may sweat profusely at night: the sore at the same time may be either improving or stationary. But whether the latter effect take place or not, the attempt to produce any further sensible impression upon the system in such a case should be abandoned, and the quantity of mercury administered must be lessened.

The most frequent accident that disturbs a mercurial course is the supervention of diarrhœa, quickly running into dysentery. Such an attack begins with loose stools, followed by watery evacuations and griping, and leads to discharge of mucus and blood, with pain and tenesmus. Attacks of this nature are liable to be brought on by imprudence in diet or exposure to cold, or through the dose of mercury not being guarded by a sufficient dose of opium. The diarrhœa may be checked by astringents combined with cordials and opium, and the dysentery by the same, joined with enemata of mucilage, of starch, and laudanum; but it is necessary, besides, to desist for two or three days from the further exhibition of mercury. Some have bowels so irritable, that dysentery returns as soon as mercury is resumed; in such cases recourse may be had to mercurial frictions.

In some an eruption upon the skin is produced by mercury, which is called hydrargyria, or eczema mercuriale. It is manifested in large red patches, which are covered with minute vesicles, and are attended with heat, and itching, and irritation, not unlike that of nettle-rash. Sometimes considerable fever is present, and sore throat and redness of the conjunctivæ. The eruption commonly appears on the belly and thighs, but it is liable to invade other parts in succession. The vesicles breaking, a slight and partial incrustation with considerable soreness follows.

Cooling medicines in the first instance, with the omission of mercury—and, in the second, the application of simple ointments to the sore surfaces, or dusting them with hair-powder, or lapis calaminaris, and bathing with a saturnine lotion, or a weak solution of sulphate of zinc, are appropriate remedies. Sometimes the eruption becomes in part pustular, and the fever runs higher, and assumes a dangerous typhoid character.

A most troublesome accident is the supervention of ptyalism, with inflammatory swelling of the face and tongue, severe face-ache, and ulcers of the fauces, with aggravated fetor of the breath: this distressing state of things may supervene very suddenly upon the administration of too much mercury. The means to get rid of the superfluous mercurial action consist in good ventilation of the patient's apartment, the exhibition of saline aperients, and an astringent gargle for the mouth. A weak solution of chloride of lime forms a useful wash to correct the fetor, when it does not prove too irritating.

Sometimes the excess of mercurial action spends itself upon the throat alone, which inflames and ulcerates; the soft palate and tonsils appearing of a deep red colour, with small ulcers on the latter. Sometimes a deceptive appearance of ulceration is produced by aphthous-like patches on the tonsils, which are viscid secretion in the excretory orifices of the gland. If this disorder supervene towards the close of the mercurial course, it forms no sufficient reason for its interruption, but the quantity of mercury should be lessened.

Occasionally the irritation caused by mercury falls on the sore, which spreads, being, with the parts around, highly inflamed: this is mercurial phagedæna, which, if the course is not then suspended, and proper means of getting the mercury out of the system adopted, will go on to sloughing.

There are few in whom the nervous system is not more or less affected by a course of mercury. With a small number the effect is that of pleasant exhilaration and an unusual elasticity of spirits. With most, it consists in depression, and irritability of temper. With some, when mercury is given to excess, the imagination becomes excited, the thoughts hurried, and the mind, unable to stop or collect itself, is on the verge of temporary derangement. This I not long since witnessed in the case of a young gentleman, who, thinking that he was not affected speedily enough with mercury, had rubbed in nearly an ounce of ointment in the space of forty-eight hours.

But the most serious effects of mercury upon the system are those first described by Mr. Pearson, under the name of mercurial erethism. They consist in depression of the heart's action and of the nervous system, attended with irritability of the stomach. Mr. Pearson says, " Erethismus is characterised by great depression of strength, a sense of anxiety about the præcordia, frequent sighing; trembling, partial or universal; a small quick pulse, sometimes vomiting; a pale contracted countenance, a sense of cold." When the patient is in this state, any bodily exertion, whether sudden or otherwise, such as hastily rising from a chair or merely walking across the room, may cause immediate death: syncope takes place, which proves fatal.

In one case which I witnessed, there was headache, faintness upon moving, a quick irregular pulse, paleness, nausea; in another, oppressive sense of faintness, particularly supervening at the instant of going to sleep, and attended with a feeling of suffocation; in a third, with less prostration, obstinate and protracted vomiting. In Dr. Bateman's case, described by himself, the symptoms were ushered in by violent and irregular action of the heart. The indications of treatment are, to give stimulants; of which, small doses of brandy and soda-water (laudanum being added if the stomach or heart are very irritable) are the best—to expose the patient to the freshest air—to discontinue mercury—to prohibit all bodily exertion—to give light nutritious food, as soon as the stomach will bear it.

SECTION V.

Accidents of Primary Siphilis.

Among the accidents of primary siphilis may be included differences in the degree of pain and attendant inflammation.

In virulent phagedæna the pain is extremely severe; in the milder forms, the sore, unless irritated, is free from sensation.

Chancre begins with itching, followed by shooting, aching, or a sense of burning; but, in general, the uneasiness, unless the sore is touched, is so trivial as hardly to excite attention. The pain, of course, bears a proportion to the quantity of inflammation and ulceration; but, nevertheless, in cases intermediate to the extremes which I have described—as in the ulcer spreading from neglect, the surface covered with dark-coloured secretion, " the foul and angry sore, with ragged edges,"

spoken of in narrations of cases—the pain is a most variable element.

The special accidents of primary siphilis are two, phimosis and bubo.

Phimosis.—By phimosis is meant any condition of the prepuce which prevents its retraction. So, simple venereal induration of a large portion of the outer prepuce, or indurated chancre of its inner surface (page 20), produce one form of the complaint.

Those which remain for consideration are of three kinds:—

1. Congenital phimosis, with ulceration within the prepuce.—Congenital phimosis results from the inner surface of the extremity of the prepuce forming an undilatable ring too narrow to allow of its retraction. This does not necessarily prevent venereal infection. A patient whom I attended had had for several months a discharge of matter from within a natural phimosis. During the last few days the part had become rather tumefied; the glans was sore on pressure, and the edge of an ulcer could be distinguished upon it, near the orifice of the urethra. The patient was directed to syringe the part with warm milk and water, to remain in his apartment, and to take aperient medicine. When two days had elapsed, the soreness being increased, I divided the prepuce, and exposed a superficial ulcer, of an irregular figure, occupying half the glans. The wound of the prepuce healed before this sore cicatrized. My principal object in dividing the prepuce was to remedy the natural phimosis; but the spread of the sore would probably have rendered it afterwards necessary on other grounds.

2. Sores, not siphilitic, casually formed upon the inner surface of the extremity of the prepuce, when that part is long, are sometimes prevented healing by the irritation of the urine. After a time the texture round them becomes hard and callous, forming a *ring* like that of natural phimosis, and the sores become exquisitely sensible, and the passage of the urine gives intolerable pain. At the same time there may be no general swelling or inflammation of the prepuce. In this case, the ordinary soothing means failing, it may be necessary to divide the prepuce, so as to allow it to be drawn back, and the sores removed from contact with the urine. I not long ago had to divide the prepuce under these circumstances: the patient had been suffering for several weeks previously. I found three shallow ulcers at the place of constriction, with no

redness round them, but the cellular texture and skin firm as cartilage.

3. The third and common source of venereal phimosis is general inflammatory swelling of the prepuce, with discharge from within it. If this state of parts has supervened subsequently to the patient coming under treatment, the case is much simplified.

If the cause is known to be inflammatory excoriation, with purulent secretion from the surface of the glans and inner prepuce, injections of tepid milk and water, to cleanse the part, and of a saturnine and opiate lotion, with maintenance of the horizontal posture, the part being kept supported, and abstinence in diet, and cooling medicines, are the appropriate remedies.

If the cause is chancre, the same local means, with the occasional injection of a lotion of calomel and lime-water, are to be adopted, and mercury given.

If phimosis supervenes upon virulent phagedæna, the prepuce should be divided, for the reasons already explained.

But when inflammatory phimosis with discharge exists, and the patient can give no account of the state of the parts within, there may be room to doubt what course should be pursued. But the operation of dividing the prepuce ought not to be performed if it can be avoided ; and it is not immediately necessary unless virulent phagedæna is present ; and the latter may be presumed not to be present unless the discharge, in place of being purulent as in the first case, is thin, ichorous or sanious, and profuse, and the prepuce swollen and of a deep red,—at one part or another mottled with lividity—the pain intense, and the inward soreness not general, but referable to one side or part of the contained glans. In this case the prepuce should be divided ; and even in less virulent disease, where phagedenic ulceration is more slowly eating away the glans, the division of the inflamed prepuce, to expose the ulcerating surface to the application of proper remedies, ought not to be long deferred, if the symptoms do not yield to other treatment. In this minor degree of severity, and likewise in the more serious case, the phimosis will often yield enough to allow the extremity of the glans to be seen, when the dark red inflammation of virulent phagedæna, and perhaps the ulcer surface itself, will be distinguishable from the brighter red, and curdy secretion on the surface, which belong to inflammatory excoriation.

The following case, which happened to be lately told me by

Mr. Druitt, may serve to exemplify the diagnosis and treatment of phimosis from the latter cause:—

A confectioner, aged 30, of a full habit and florid complexion, applied for advice, with the integuments of the penis greatly swollen, especially the prepuce, the end of which was in colour a dark red. The glans, as much of it as could be seen, was covered with a yellowish white secretion, which came off in flakes. There was abundant purulent secretion, which poured out from below the prepuce when it was pressed; the discharge was principally matter, but the flakes above mentioned, and blood, were mixed with it, and it sometimes came away thinner and sanious. There was constant gnawing pain. He had considerable symptomatic fever, headache, pain in the back, furred tongue, hot skin, frequent hard pulse. He would not submit to be bled, but he consented to go to bed, and took aperient medicine, and salines with antimony, and injected repeatedly tepid decoction of poppies below the foreskin, keeping the part at night in a poultice of camomile flowers. He mended quickly, and was allowed to leave his bed in five days, the swelling, discharge, and soreness being much lessened, and the pain gone. The cure was completed by means of astringent injections. When, at the expiration of three weeks, the foreskin could be drawn back, the glans was of a bright red. The whole surface had been in a state of inflammatory excoriation. The phimosis had existed some days before the treatment was commenced, and the patient had taken mercurial pills during three; they were discontinued.

Bubo.—The term bubo denotes a phlegmonous inflammation of one or more of the lymphatic glands, and of the surrounding cellular tissue, in a region adjoining a primary sore. When the chancre is on the genitals, the bubo occurs in the groin.

This disorder arises, it is presumed, in some instances, from sympathetic irritation alone, or in the same manner that it is known to follow any accidental sore upon the skin, or gonorrhœa; but in many instances it certainly directly results from the absorption of the siphilitic virus.

There are two periods at which bubo is especially liable to supervene. The one is within a few days after the appearance of the ulcer; the other, when the ulcer is losing its specific character, and beginning to change to a granulating sore. Intermediately bubo frequently arises; but is then often traceable to some indirect cause, such as walking or riding, by which the sore

may have been chafed. The commencement of a course of mercury has a tendency to bring forward buboes that were before indolent.

The commencement of bubo is generally slow: a gland is felt to be enlarged, of the size, perhaps, of a filbert, and is sore when pressed, or in walking, or upon change of posture; then the surrounding cellular tissue becomes engaged, and there is a firm doughy swelling containing and concealing the gland itself. The integuments are hot, and sore on pressure, but not discoloured. The progress of the complaint is most uncertain; sometimes, with great pain, and aching, and soreness, and burning, and pricking, the swelling runs on to suppurate in a few days; and matter may be felt, while the skin is as yet red for a short and narrow space only. In other cases the tumour remains indolent, while the skin becomes, for the extent of two square inches or more, of a dull red, and has an elasticity like matter forming; and such tumours after all quietly disperse.

When the swelling in the groin is first perceived, of all things rest is to be strictly observed, and no irritating applications are to be used to the sore. To the tumour itself, cold embrocations are at first the best, such as the liquor plumbi subacetatis dilutus, or a weak spirit lotion. When the application of cold is grateful, the part may be bathed with iced water occasionally during the day. In this manner I think I have seen buboes put back that else might have suppurated. Care is to be taken not to chill the patient through such applications, which are to be strictly local, and to be made for a short time only. When warm fomentations are more agreeable to the patient's sensations, they are preferable, and an anodyne poultice in that case may be recommended. Whatever lessens the uneasiness tends to reduce the inflammation; whatever reduces the inflammation lessens the chance of matter forming.

If possible, a bubo should be repelled: even when matter has formed, there is still a chance of its re-absorption; but the means which can be employed to promote it are limited to rest, cold embrocations, and poulticing.

If there is much pain and heat, and the symptoms have progressed rapidly, and the fluctuation is distinct, the bubo had better be opened without delay. If the red surface is of small extent, the opening may be made with a lancet: it had better not be much less than an inch in length, but it should not extend

beyond the thinned portion of the integument. If the quantity of inflamed skin is considerable, and it is undermined to some extent, the fluctuation being distinguishable for that extent and the inflamed integument thin, the bubo should be opened with caustic. For this purpose you rub a stick of potassa fusa upon a surface of the size of a sixpence or larger till its vitality is destroyed; a poultice being then applied, in a few hours the abscess opens at the edge of the slough. This method is preferable to puncturing with a lancet, inasmuch as it gets rid at once of a portion of the inflamed and undermined skin, which otherwise would have disappeared more slowly by ulceration, retarding the cure.

When a venereal bubo has been opened, in many instances its progress is favourable: the discharge gradually lessens, the cavity fills up, and the granulations joining those of the edge of the aperture, cicatrization takes place within a few weeks. But in other cases various troublesome consequences will follow. M. Ricord found that inoculation from the matter of venereal buboes will produce chancre; but he curiously observed, that the matter used must not be the matter that flows out first (or that from the suppurating cellular tissue), but matter taken from the bottom of the abscess (that is to say, from the suppurating gland itself); the next day the two are mixed, and the general matter will infect.

This observation tends to establish some remarkable points. In the first place, it proves that bubo is sometimes caused by the actual absorption of the siphilitic virus; in the second place, it establishes that such buboes are parts of the disease, and that an open bubo may be a venereal sore. The following case carries these views still further:—A young man became my patient with unindurated chancre on the inner prepuce; he took mercury, and his mouth became sore. The chancre in a fortnight had improved in appearance; but a bubo, which had been threatening some time, now came forward. A month from the commencement of the mercurial course, the chancre was a healthy ulcer covered with granulations, and its edge cicatrizing; but the bubo had become more painful, and evidently contained matter, though the skin was reddened to a very small extent. I therefore opened the abscess with a lancet, and with the last quantity of pus which flowed inoculated this patient on the arm. Three days afterwards the point inoculated became a pustule, and then a chancre;

at the same time the opening made in the bubo assumed exactly the same character, acquiring a determinate, raised, and inflamed border, and the two sides of the aperture perfectly resembled the surface of a chancre. We may hence infer that matter formed in a bubo from chancre is not changed in its nature by a course of mercury, but that it remains capable still of infecting. It unavoidably follows, that siphilitic buboes that have suppurated should be opened early; that if opened late by art, or spontaneously, the character they present should be carefully attended to: that if opened late, opening by caustic is preferable to opening with a lancet, as an ulcerated surface probably takes contagion slower than a cut surface. Finally, it is evident that the possibility of this re-infection from the matter preserved in an unopened bubo, throws additional difficulties in the way of determining the efficiency of mercury as a preventive of constitutional lues.

One of the most troublesome consequences of bubo is the formation of fresh suppurations in the adjoining cellular membrane, which open into the original abscess, and, contracting, leave long subcutaneous sinuses, which are often of most tedious recovery. These are to be treated with the mildest applications till the course of mercury is finished, and the patient's health has recovered its tone; then, by the injection of stimulant washes and pressure, and, if necessary, by laying them more or less extensively open, they may be healed; but division of such parts is to be shunned, if possible, from the danger of exciting new inflammation of the adjacent cellular tissue.

An open bubo is liable to the supervention of phagedæna; when its surface becomes glazed; it is hot and painful; its edge angry, irritable, ulcerated, or sloughing. The relinquishment of mercury, if mercury is being administered, opiate poultices to the part, opium administered internally, with such other remedies as the patient's general condition demand, are the means to be recommended.

If the bubo extends in depth, its situation near the femoral artery renders the disease extremely alarming, and likewise renders any decisive measure, such as cauterizing its surface with nitric acid, impracticable. Even when it spreads at the edge alone, the ulcer, as in a remarkable case given by Hunter, is liable to be exceedingly unmanageable. Tonics, sarsaparilla, with the iodide of potassium, change of air and of local applications, are the

likeliest means to arrest its spread. After these have been exhausted, recovery on a sudden will perhaps spontaneously and unaccountably take place.

Sometimes a bubo will remain a length of time stationary and indolent, with a thickened, callous, irregular edge. If the application of mercurial lotions or Peruvian balsam will not induce action in it, the callous edge should be destroyed by rubbing it with the potassa fusa; then, after poulticing to separate the sloughs, pressure by bandaging will certainly compel it to heal.

The lymphatic vessels of the penis are sometimes inflamed in chancre, and may be felt as hard lines or strings stretched below the skin. Occasionally little abscesses form in these, the matter from which M. Ricord found capable of communicating chancre.

CHAPTER II.

OF CONSTITUTIONAL LUES.

SECTION I.

Nature of the Disease, and Principles of Treatment.

Constitutional lues is a condition of the system produced through the absorption of the siphilitic virus, and manifested by the invasion of a series of disorders, which, although very dissimilar in different instances, are yet so strictly connected by community of origin, occasional co-existence, and obedience to the same remedies, as to form indisputably but one disease.

The secondary symptoms of siphilis are—eruptive and ulcerative complaints of the skin and throat, inflammation of the iris, nodes upon the bones, with other affections of less consequence and of rarer occurrence. When the disorders so enumerated attack the same individual, the order of their appearance is commonly that in which they have been named. The later symptoms may supervene either before or after the disappearance of the earlier, or they may coexist with their return; or either of them may be manifested alone.

The duration of constitutional lues varies from one to two years; sometimes, however, the disease appears to terminate with a single attack; sometimes it persists for several years. Commonly during its whole continuance the patient is below his former average of strength and condition. But he is not for the same period exhibiting special symptoms: the disease has remissions, which are often so complete as to lead to the belief that it is cured when it is not; nevertheless, there are instances in which the disease, left to itself, continues progressive for an indefinite period.

The first attack of secondary symptoms commonly takes place about six weeks from the commencement of the primary disease: I have known it, however, happen within three weeks after chancre

has been discovered, and I have known it, again, delayed upwards of a year, as well as to the intervening periods; and in one instance the patient assured me that four years elapsed between the secondary disease and any primary venereal complaint. The invasion of constitutional lues is generally later in cases where the previous treatment has been mercurial. The observation is not without interest, that the periods at which secondary symptoms declare themselves, correspond with those at which hydrophobia supervenes after the bites of rabid animals.

The final extinction of constitutional lues, or the period when the system has become entirely freed from its influence, cannot be determined with certainty. It often happens, months after any decided outbreak of the disease, and when the health appears permanently re-established, that irregularities in diet and excess will lead to the re-appearance of some trivial symptoms—such as a slight sore throat, or a few spots upon the skin, or rheumatic pains. Sometimes the only evidence of the persistence of the disease will be, successive miscarriages, or the birth of siphilitic children, either the father or the mother not having entirely got rid of the siphilitic taint. This habit of body, which is not inconsistent with general healthiness of appearance, is certain in time, and with judicious management, to wear out. As long as it exists, the patient may be said to labour under the siphilitic diathesis; which, as it continues for a period after the cessation of every symptom, so must its existence have preceded the appearance of any.

The differences in the march of the disease, which I have specified, are not referable to differences in the character of the primary ulcer. They arise from peculiarities in the habit of the persons infected; in other words, from individual predisposition—the same cause which determines the character of the primary disorder, the greater susceptibility towards it of one individual over another, the different susceptibility of the same individual at different periods of his life.

The principles of the treatment of secondary siphilis admit of being embodied in four rules:

1. In the mildest cases, the observance of extreme moderation in diet, in bodily exercise, in mental exertion, the avoidance of everything calculated to heat, excite, disturb, or even invigorate the system, will so repress constitutional lues, that its continuance is known only by very slight occasional manifestations requiring no special treatment.

2. In cases next to the mildest, secondary siphilitic symptoms commonly require medicine for their control, to prevent temporary or permanent impairment of organs and disfigurement. The principle to be followed in such instances is to aim at subduing the present attack. The ravages of siphilis that are read of, and occasionally seen, have arisen from injudicious and fruitless attempts to eradicate the disease at once, when in its secondary stage, by protracted courses of mercury, renewed or continued as long as any symptom has shown itself. The constitution may be said, without exaggeration, to rot under this practice.

3. Nevertheless, there is certainly room for stating, as a third principle, that in a few instances, (but for which the grievous error just adverted to never could have been committed,) the disease, in its secondary form, admits of being extinguished by a protracted course of mercury. The instances, however, in which alone I think there has been reason for believing this result to have taken place, have been cases in which the disease has existed a long time, and in which mercury has not been administered for a long period, or at all.

4. It may be allowable to specify as a fourth principle in the treatment of constitutional lues, that in its most serious manifestations, (always excluding iritis,) it is occasionally proper to desist from all medicine, giving the disease for a fortnight or more its full swing and course, prescribing only such diet and medicine as the general condition of the patient may require. The patient will occasionally make a decided amendment upon this course being adopted, and upon those medicines being intermitted from which he had previously derived benefit, and from which he will again, when the constitution has been temporarily relieved of the impression which they occasion, and when, after an intermission, their renewal produces a fresh change.

Of the remedies for constitutional siphilis, mercury is so far the most important, that it is the only one, however rarely it may be right to use it with this object, through which the immediate extinction of constitutional lues can be anticipated; and that, besides as a repellant of the disease, it is one of the most efficacious. The other remedies are exclusively repellent, or are capable only of removing the present attack; nevertheless, they are the most proper in the majority of instances, and the most painful and disfiguring forms of the malady they alone have power to control.

The remedies that are repellent alone, are, first, the iodide of

potassium; then sarsaparilla, the compound decoction, or its infusion in lime-water; then the decoction of the smilax aspera: with the three last, liquor potassæ may be advantageously joined; then nitric acid in decoction of bark, or the sulphate of quinine with dilute sulphuric acid.

The iodide of potassium is by far the most efficacious among these repellent remedies. It may be given either in pills or in solution. When given in pills, they should be washed down with half a tumbler of barley-water or toast-and-water, or with three or four ounces of compound decoction of sarsaparilla. Those to whom the taste of the iodide is not nauseating, had better take it already dissolved in the decoction or infusion of sarsaparilla. The iodide of potassium is sometimes efficient in doses of two grains, three times a-day: generally, however, from five to ten grains, or even twenty, are necessary. But unless, from recent trials, the patient knows that the medicine perfectly agrees with him, it is best to begin with a smaller dose. No medicine, perhaps, where it does good, produces amendment so speedily as the iodide of potassium; therefore, the propriety of continuing it is never doubtful. It is useless to continue it at the same dose, when no sensible progress is made by the patient; so it is often necessary to increase the dose, and to go on increasing it. I have, in a few cases, been so led to administer as much as half a drachm of the iodide with a grain of iodine, three times a-day, having obtained an amendment of each increase of the dose up to this quantity. The evanescent character of the influence of this medicine is most remarkably shown by the advantage derived from using it with intervals, discontinuing it for a fortnight or a month, and then resuming it. If the disease had become stationary before the iodide was discontinued, and became worse during its intermission, on returning to its use the symptoms seem to disperse miraculously. The principal use of the other repellent medicines which I have named, is to fill up, if necessary, the intervals during which the iodide requires to be discontinued, to regain its efficiency, or in cases where it disagrees. They appear to exert a feeble influence of the same kind.

The only sensible effect of the iodide of potassium, where it fully agrees, is to increase the quantity of urine. It is liable to disagree in the following ways:—With some it disorders the bowels; with others it produces uneasiness at the stomach, and an acrid dryness of the throat; in others, headache and giddiness. Each of these disorders, however, will sometimes admit of being corrected,

by adding a few drops of laudanum to each dose, aperient medicine being at the same time administered, especially when headache is the symptom to be contended with. I have heard of, but have not seen, depressive effects, analogous to mercurial erithismus, being produced by this medicine. Of course, in that case (as in the others, if the disorder persist), the use of the remedy must be abandoned. Soreness of the gums and ptyalism sometimes occur while the iodide is taken.

In some cases, mercury and the iodide may be advantageously combined; a pill of corrosive sublimate and bread being taken, for instance, with each meal, and the iodide of potassium in sarsaparilla intermediately. In one case, where two forms of eruptive disease were simultaneously present, it was evident that the two medicines thus exhibited controlled, each, one of the former; so that, on either remedy being omitted, the corresponding eruption made head.

These general observations having been premised, the varieties of constitutional lues, and the treatment appropriate to each, have now to be considered.

It has been mentioned that the leading secondary symptoms are eruptive and ulcerative affections of the skin and throat, which generally coexist; and iritis and affections of the bones, which follow in succession; and that there are several other minor symptoms. But it seldom happens that each of the classes of symptoms specified is equally manifested in the same case. In general, either the skin affection, or sore-throat, or iritis, or affections of the bones, are the most prominent features. I shall, therefore, in describing constitutional lues, present to the reader so many different varieties as are obtained by the predominance of one symptom in entire groups of cases. Of these there are six, of which three are distinguished by peculiar skin affections.

The first, of which the characteristic feature is siphilitic psoriasis, is attended likewise with roseola and mottling of the skin, and is occasionally complicated with slight manifestations of other cutaneous affections. It forms in London the most frequent variety of secondary siphilis. I shall describe in connexion with it, having made it the first in order, all the minor symptoms, which are indeed liable to coexist with the other forms, or even to occur separately and independently as the only evidence of the presence of the siphilitic diathesis.

The second, characterised by a papular eruption of the skin, is the lichenous variety.

The third is characterised by ulcerative cutaneous disease, originating either in lepra, tubercle, ecthyma, or rupia.

Under a fourth head will be described the varieties of siphilitic affections of the throat;

Under the fifth, iritis;

Under the sixth, siphilitic affections of the bones.

SECTION II.

Siphilitic Psoriasis.

I SHALL begin with describing the appearances of siphilitic roseola, mottling of the skin, and psoriasis.

Siphilitic roseola is an efflorescence of a bright red colour, more inclined to a coppery than to purple red, which occasionally appears upon the belly and thighs, as the first demonstration of constitutional siphilis. It lasts two or three days only, during which it varies in brightness of colour, and, becoming pale, disappears entirely. Sometimes slight symptomatic fever attends it.

Siphilitic mottling of the skin.—The skin in this affection appears stained in patches of an irregular shape and unequal magnitude, from a quarter to half an inch or upwards in diameter, of a brownish-red colour, and with a faint undetermined edge. This mottling usually begins upon the lower part of the abdomen and upon the loins, and sometimes extends to the thighs; and when it fades upon the abdomen, it sometimes breaks out upon the chest. Upon the face and forehead it has a dull leaden hue, and the integument looks thickened or swollen. Sometimes, but not commonly, the edge of each spot is defined and circular: I have seen the latter appearance upon the whole of the trunk and forehead, the circular spots being about a third or two-fifths of an inch in diameter. In one patient, upon the forehead there was a large circular patch of this description, one half of the edge of which was redder and slightly thickened, but perfectly smooth, forming a thin raised semilunar border.

Mottling is probably produced by the same action upon the skin with that which goes on to form psoriasis, or lepra; but it is less in degree; the spots are not elevated; and they do not sensibly desquamate.

Psoriasis siphilitica.—The eruption consists of small raised

patches of inflamed skin, with lymph effused under the epidermis, which separates in scales. In Willan's plates, under the name of psoriasis guttata, the common appearance of the eruption is very faithfully given. The first appearance of the eruption is as small raised red points, which spread in a few days to their full size, which varies from a quarter to half an inch in diameter. The figure of each is sometimes strictly circular, more generally irregular. The patch is sometimes barely raised at all: in that case its colour is generally red, and it attains its full size quickly. When elevated, the colour is commonly browner. The elevation is generally greatest on the middle of the patch, and slopes to the edge; but sometimes the patch, according to Willan's account and in my own observation, is a little tubercular table, with the edge rather higher than the centre, where alone there is a scale. The degree of elevation, and the disposition to form scales, are different in different cases. The disposition to form scales is altogether much less in siphilitic than in common psoriasis. The character of the eruption varies in different parts. On the head it is often acuminated; on the forehead it is slightly raised at first, but becomes flatter as it becomes broader. On the chest and back it is generally elevated and convex; on the lower part of the abdomen, broad and flat; towards the pubes it has a tendency to run into large flat patches, with cracks, from which serum oozes and dries, forming a slight crust. Upon the glans penis it forms a superficial circular sore or patch of excoriation; on the scrotum, a raised tubercle; on the sides of the scrotum towards the groin, between the nates, in the axilla, the patch is raised, soft, and sore, and moist, with exuding secretion; at the anus, these patches are liable to become irritable ulcers. Upon the palm of the hand, psoriasis sometimes appears in numerous circular or convex patches, covered with horny epidermis; but more commonly there are but one, two, or three patches, which at first are small and elevated, then spread to a large size, becoming flat, with an irregular outline, looking alternately red and covered with desquamating cuticle, and exhibiting cracks. At the ends of the fingers psoriasis appears in acuminated brown patches by the side of the nails, which sometimes are shed, when a patch invades the secreting surface.

The disorder occurs in every degree, from a single patch on the hand to an eruption looking not unlike the vesicular stage of small-pox over the whole person. In fading, each

patch leaves a light-brown stain, which gradually dies away. Sometimes, but rarely, a bright yellow coppery stain is left, which does not completely disappear for months.

The eruption, as I have described it, whether scarce or abundant, may be called psoriasis discreta. In a few cases it breaks out in groups, of forty or fifty such patches, covering a space of two or three square inches. Upon the loins and back, four or five such groups may form. This variety may be called psoriasis conferta; it has a tendency to go into ulceration, which the other rarely exhibits.

Sometimes the patches of psoriasis are disposed in a ring, forming the circumference (or a segment of it) of an area free from disease.

I shall now proceed to describe the progress of an attack of siphilitic psoriasis, which symptom is the prominent one in the most frequent variety of constitutional lues. It is, indeed, sometimes the only symptom present. Even the slight impairment of health, which is generally observable during the whole duration of lues, sometimes here exists in a barely appreciable degree; and the patient considers that he is perfectly well, but for the few spots which continue to form upon the head, the body, the hands, upon one or more parts of the cutaneous surface, new ones appearing and coming forward as the earlier ones fade. Such an attack may last for several weeks, and never recur; or, as it more frequently happens, the complaint may disappear and return after an interval. Instead, again, of a simple outbreak of psoriasis upon the cutaneous surface, there may coexist with, or precede it, other symptoms, that have now to be examined.

The symptoms that thus often group with psoriasis are (besides roseola and mottling of the skin, that have been already adverted to), siphilitic pains, excoriation of the mucous membrane of the fauces, and falling off of the hair. These are likewise, indeed, in themselves independent or substantive symptoms of lues. If often found in conjunction with psoriasis, each sometimes exists alone, or is found in other combinations. Siphilitic pains and loss of hair are equally met with both in the lichenous form of lues, and in secondary cutaneous ulceration. They are liable to go with either of these three great forms of siphilitic cutaneous disease, just as iritis and affections of the bones are liable to follow in the train of each.

Siphilitic pains resemble those of chronic rheumatism. Some-

times they affect the whole person; often the back and shoulders only; sometimes one part alone—the elbow, the knee, the ankle, the shin-bones. They bear no proportion to the severity of the other symptoms. Sometimes they last during a few days only; in other cases, during the continuance of the eruption. They occur in the mildest forms of the disease as well as in the more serious; and in the most virulent case of psoriasis that I have witnessed they were absent. There is, however, one less usual form of psoriasis, in which they invariably precede the eruption; and which being attended with constitutional disturbance, puts on the characters of a protracted eruptive fever. The same features, it is well to observe, attend lichen almost uniformly. Pains sometimes occur at a remote period of time, many months or years, after primary siphilis, and are the only symptoms of the complaint developed; they are then capable of being identified with siphilis by the history of the case, and by their yielding to anti-siphilitic treatment.

Mottling of the skin frequently coexists with psoriasis. The body, for instance, is often mottled, while there are patches of psoriasis on the head and hands. Sometimes, indeed, the mottling exists alone, without either psoriasis or any other symptom. It seems an incomplete effort towards the same action.

Siphilitic excoriation of the mucous membrane of the fauces or nostrils is an extension of psoriasis to these surfaces. Patches of the mucous membrane become inflamed, and are covered with a layer of thickened whitish epithelium: when this moist scale desquamates, the surface exposed is red and raw. The alternation of these appearances is best seen upon the tonsils, which are the commonest seat of the affection; they are at the same time more or less swollen. On the arches of the palate the patch remains more constantly white; upon the under part of the side of the tongue, or at its tip, the patch, on the other hand, is commonly excoriated. Upon the inside of the lip such a patch occasionally forms, of the size of a silver penny, with the same whitish appearance as on the arches of the palate. Upon the dorsum of the tongue, the same affection is attended with surrounding induration, and fissures of the surface. When a part of the lining membrane of the nose is in this state, it is red, sore, and uneasy, but there is no increase of secretion. The patches on the palate and tonsils are less sore than those on the other parts of the mucous membrane. These appearances are sometimes the

sole evidence of the existence of secondary siphilis. In a greater or less degree they are very constant attendants of cutaneous psoriasis. They generally occupy one or two only of the points indicated at a time.

After psoriasis has existed some weeks, *the hair is liable to begin to fall off.* This I have known happen as an isolated symptom of secondary siphilis, some time after the cure of chancre by mercury. In the case of David Philips, again, given by Mr. Rose, three months after a sore of the common appearance of chancre had healed with much hardness and thickening, mercury not having been used, "the hair came off in large patches, particularly about the back of the head;" in two months it grew as strong as ever. Mr. Rose adverts to another similar instance, in which, as in this, no other symptom manifested itself.

The course of siphilitic psoriasis, independently of the uncertain coexistence of one or more of the preceding symptoms with it, is extremely variable: sometimes the eruption disappears after a few weeks, and does not recur; far more frequently it continues for many months, alternately getting better and worse, or, after completely disappearing, returns in fresh attacks. Sometimes, left without treatment, it remains for months nearly stationary. Occasionally one or more of the patches ulcerate; but the ulceration is superficial, and cicatrisation speedily follows. When the disease is protracted, the eruption is likely to be complicated with iritis, or with affections of the bones, or with both.

These great diversities in the habitudes of this form of siphilitic disease render it impossible to lay down any invariable rules for its treatment. Where the symptoms are mild, it is better to give no medicine, but to allow the complaint to wear itself out, enjoining only great moderation in living. When it appears in a middling character of virulence, or where, being in its mildest form, it happens to disfigure by breaking out on the hands or face, it becomes necessary to resort to medicine to repel the disorder: for this purpose a course of the iodide of potassium is to be employed. In general the exhibition of the iodide for two or three weeks, in doses of from two to ten or twenty grains three times a day, is fully sufficient to subdue the attack. I am disposed to think it very important to let the complaint wear itself out, when it is possible, with little or no assistance from medicine. All that I have observed leads me to believe that the disease never strengthens itself, but, on the contrary, exhausts itself by its out-

breaks. When these are repressed by the use of the iodide of potassium, or sarsaparilla, or both together, they nevertheless return after an interval; and it is far from impossible that the entire duration of the complaint may be thus lengthened. Another argument against using medicine in these attacks, when it can be avoided, is, that it is never certain in what form the disease may next make its appearance; and it is desirable to keep in reserve, against a contingent more serious attack, the full force of an untried, and therefore a more efficacious remedy.

In the most virulent cases, a course of mercury may be resorted to with a certainty that it will subdue the attack. This measure is especially to be recommended, if mercury was not given for the primary disease. But mercury administered in such a case only, like the iodide of potassium, repels the present attack; the disease is not extinguished by it, but will certainly manifest itself anew; probably, however, its next re-appearance will be in a mitigated form, and then, of course, mercury is not again to be immediately resorted to.

The most effective time for the employment of mercury in siphilitic psoriasis, is when the disease has lingered on for a considerable period, having, as it may be supposed, approached its natural extinction, yet when it is not clearly on the decline (when mercury would be unnecessary), but is either stationary or progressive. The extinction of the disease, it has appeared to me, may then be accelerated by the use of mercury.

I shall now proceed to exemplify the features of siphilitic psoriasis, and its treatment, by the detail of cases; and I shall first place before the reader three, out of many given by Mr. Rose, which show the natural course of the disease in its mildest form:—

John Lee, admitted Sept. 5, 1815, with two foul sores of the size of a silver penny on the internal prepuce, which had all the characters of chancres, and had been present seventeen days. Sept. 16, a bubo had appeared in the right groin. Oct. 30, the sores healed; the hardness of the prepuce was diminishing: the bubo was dispersed. Nov. 9, he had rheumatic pains in his shoulders and arms, and a dark mottled appearance of the skin over every part of the body. Nov. 25, the mottled appearance had begun to fade, and the rheumatism was less severe: cicatrix of the sores natural. Dec. 15, the symptoms had disappeared.

E. Hogg, admitted Nov. 13, 1815, with a deep ulcer, with hard irregular margin, on the inner membrane of the prepuce, of the size of a large split pea, with bubo in the right groin. The symptoms were of a few days' standing. Dec. 16, the sore was healed, with a great deal of thickening and hardness: the bubo had suppurated, but the matter was beginning to be absorbed. Jan. 2, 1816, a very irritable sore was again formed, from his having rubbed the cuticle off the cicatrix ten days ago: the whole prepuce was inflamed and swollen. Feb. 7, the sore had again healed; the hardness was like a piece of marble: the bubo had come forward, and had burst and healed: his skin had a dark mottled appearance on every part of his body. Feb. 28, by the use of a little mercurial ointment and camphor to the cicatrix, the hardness had a good deal diminished, but was still very considerable: the mottled skin was as before. April 16, the mottled appearance had entirely gone off: the hardness of the cicatrix remained. Sept. 21, the cicatrix was nearly natural.

Wm. Carrier, admitted May 23, 1816, with a deep foul sore by the edge of the corona glandis near the frænum, one side of which was destroyed by it. The base and margin were much indurated and thickened, and the discharge was thin and acrid. The sore was not healed till the 8th of August, and then with considerable hardness. A gland became affected in his left groin a few days after his admission, but was dispersed in about a month. July 6th, he observed some spots on his breast and loins, and in a day or two the whole body was covered very thick with dark brown patches, of an irregular form, and a little elevated, larger than the diameter of split peas, giving a mottled appearance to the skin. A few were visible on his forehead, about the roots of his hair, and behind his ears. July 17, he began to take sarsaparilla; the appearance of the eruption had not altered. Aug. 8, there were still some coppery spots on his forehead and about the roots of his hair, but those on the body were much fainter. Aug. 21, the eruption was faint. Oct. 6, a dark-coloured eruption, slightly elevated, had again become more distinct on his back and shoulders. Nov. 24, his tonsils were enlarged, and looked as if covered with an additional layer of lymph. Feb. 9, 1817, the same eruption of the tonsils continued; the eruption had disappeared. Feb. 23, the tonsils were nearly natural. His health had been uninterruptedly good since the pain and irritation of the sore subsided.

I shall now narrate a case in which the symptoms were extremely mild, but at the same time intractable. They were troublesome enough to require medicine, but each medicine used was efficacious only when first tried, and afterwards proved nugatory, or disagreed. The disease finally wore itself out, under the observance of great caution in living.

A. B., when on the Continent, observed, after exposure to infection, a small superficial circular sore on the inner prepuce, near the corona glandis. In three or four days the surface of the sore became elevated above the surrounding skin. Calomel in powder was then applied to it three times a day for ten days; when the sore healed, leaving, however, a hard cicatrix. To this mercurial ointment was applied, and the hardness dispersed in ten days more. One grain of blue pill was given daily at the same time, and continued four weeks; it produced no sensible effects. Four weeks from the first appearance of the ulcer two or three spots appeared on the palms of the hands, which enlarged to irregular red patches, with desquamation: the throat became excoriated about the same time. After a few days, having returned to England, and living in society without any restriction as to diet, he recovered of the sore-throat, but the spots remained. Towards the middle of May, two months from the first appearance of the sore, the spots on the hand increased in number and size, and the sore-throat returned. In June he began to take sarsaparilla, with liquor potassæ, and continued to do so for five weeks, when he became apparently well; he lived, at the same time, strictly by rule, dined at two, and drank no wine. Then he went to the sea-side, continuing to live as prudently; yet while there, he experienced a return of the disease, for which sarsaparilla and potass were again taken, but without advantage. There were spots on the head, hands, and scrotum, excoriated throat, and soreness of the mucous membrane of the nose. A sixth of a grain of corrosive sublimate was now tried twice a day for two days, three times a day three days, four times for two days. Great amendment followed, and the hands became quite well; but depression, with faintness, and irregular action of the heart, supervened. The mercury being on this account discontinued, the spots and sore-throat returned. Towards the end of September mercury was tried again, and four grains of blue pill were taken every night for a week, with manifest improvement; then supervened diarrhœa and dysentery. The medicine being discontinued,

the symptoms in a short time made progress. Then in succession other remedies were used,—the decoction of sarsaparilla, the infusion of sarsaparilla in lime-water, small quantities of mercurial ointment, the iodide of potassium in minute doses; all of which seemed to do good for a few days, then became nugatory; and the mercury, when persisted in, disagreed. So the winter passed, upon the whole with improvement, and he left town better in health about the middle of January. Feb. 1, the psoriasis increasing again on the head and on the throat, and appearing on the hands, a sixth of a grain of corrosive sublimate was taken twice or thrice a day. In five days the throat was better, but he had become pale and weak: the mercury was therefore discontinued; upon which he became worse, and the oxymuriate resumed produced no effect. He then lived with the greatest care and management as to diet and habits, taking no medicine; when every symptom disappeared. He is now in perfect health; but for several months after the period spoken of, any deviation from the most regular living would bring back symptoms of the disease.

The two cases which I shall next narrate exemplify the efficacy of the iodide of potassium in subduing attacks of ordinary siphilitic psoriasis:—

A. B., aged 24, was admitted an out-patient of Middlesex Hospital, for a superficial sore on the inner prepuce, which had existed three weeks: it was not indurated, but its surface was red, and the surrounding skin inflamed and angry. The black wash was directed to be applied on lint to the sore; and ten grains of the iodide of potassium, in decoction of sarsaparilla, ordered to be taken twice a day. Three days afterwards there was more inflammation about the ulcer, and the lower part of the belly was mottled with red patches of an irregular figure. Aperient medicine was given; the wash changed to a saturnine and opiate lotion, and the dose of the iodide increased to a scruple three times a day. In a few days the sore had materially improved, but the forehead was covered with red circular patches of the size of a silver penny; the belly was more extensively mottled, and the throat was excoriated. The same medicines were continued. In a week afterwards the spots had become less bright, and in four weeks more, under the same plan, they had disappeared. The sore had granulated and healed in a shorter time. This patient came again to the hospital after upwards of a year: he had a few

spots of psoriasis on his head and hands, and excoriated throat; and these symptoms, he said, had recurred several times, but to so slight an extent that he did not think it worth while to apply for medicine. I ordered him the iodide again, and I have not seen him since.

Edward Lee, aged 19, admitted into Middlesex Hospital, Dec. 11, 1839. About a week before, he had discovered that he had sores on the penis, a swelling in the groin, and spots upon the arms and abdomen; and during the last three days he had become indisposed, chilly, and feverish, and had experienced pains in his shoulders, elbows, and knees, which were worse in the day-time, when he was about and at his employment. At his admission there was extensive inflammatory excoriation of the corona glandis and fossa of the glans, surrounding two ulcers, the biggest of the size of a pea, which were shallow without a very regular edge, of a whitish surface, with some induration which extended to the surrounding parts. The skin of the abdomen was mottled; in the middle of three or four of the coloured spots there were patches of psoriasis; at the bend of each elbow were two or three larger patches, as big as a silver fourpenny piece, circular, red, barely elevated, covered with minute scales: these were the first he had noticed. Both tonsils were swollen and excoriated, and there were two small white patches on the right anterior palatal arch. The chancres had given him no pain; I conjectured from their appearance they had been in existence a month. A scruple of the iodide of potassium was ordered twice a day in decoction of sarsaparilla, which on the 13th was raised to three times, and black wash to the sores. On the 18th, the pains were better, and disappeared the following day: but the eruption of psoriasis increased; the patches became numerous on the abdomen, and shoulders, and loins,—many of them formed in the middle of the larger mottled spots—others appeared on the forehead and at the roots of the hair. 21st, the eruption of psoriasis stationary or on the decline; the calves of both legs are covered with minute papulæ. He continued to take the iodide till the 22nd of January, when nothing remained but faint stains left by the eruption.

A. B., aged about 27, had, in March 1836, a small circular sore, slightly excavated, on the inner prepuce, near the edge of the glans: it was not indurated, but upon applying the black wash for three days no change took place in its character: he then began mercury, taking for a fortnight fifteen grains of blue pill

daily. This producing no effect upon the gums, he used in addition half a drachm of mercurial ointment every night: the sore now began to granulate, and slowly healed towards the termination of the fourth week, when the mercury, which had never sufficiently affected the mouth, but had produced paleness and night perspirations, excited erethism: he had headache, intermitting pulse, and vomiting. No further mercury was therefore given. Thirteen months afterwards, through catching cold, as he supposed, when heated with exercise, he experienced pains in the shoulders, which were treated as rheumatism, but did not leave him. He then reapplied to me, when I found the abdomen mottled, and that he complained of pain, swelling, and stiffness of one knee, on which he had received a blow some months before. By my advice he took sarsaparilla, with the iodide of potassium, first five grains, then ten, three times a day, for a month, and recovered. During the following summer he was attacked with slight sore-throat, psoriasis on the legs and hands, with spots upon the head, and excoriated throat. For this he took sarsaparilla alone, became fatter and perfectly well, and took considerable exercise in shooting. In November he had another slight attack of psoriasis; two or three spots formed on the wrist, the throat was sore, and the periosteum of one tibia; he took the iodide again for three weeks, and completely recovered. Early in the spring, when in the country, he experienced severe headaches, for which he was purged and cupped without benefit. On taking the iodide for a fortnight he became well again.

The next case which I shall narrate exemplifies a virulent outbreak of psoriasis, where the treatment of the primary sores had not been mercurial. Mercury was required to repel this attack. Other forms of cutaneous disease then followed, of a kind to the cure of which mercury was less appropriate. These and subsequent outbreaks of psoriasis in the same case, have yielded to the iodide of potassium.

A. B., aged 50, had been exposed to infection more than eight weeks before, when he discovered a sore upon the inner prepuce, near the glans. He showed it to a surgeon, who assured him that it was not venereal, and gave him an astringent lotion to dry it up. Ten days afterwards, which had been spent in considerable exercise and travelling, the sore presented the following appearance:—It was covered with dark adherent secretion, and the adjacent part of the prepuce was swollen and red. The sore

was about half an inch in diameter, circular, one half on the body of the penis, the other on the inner prepuce, as it appeared when the latter was drawn back. At the bottom, the sore looked as if disposed to spread by the sloughing of the cellular texture between the integuments and penis. It was not attended with pain. An ointment containing Peruvian balsam was applied on lint to the sore, an aperient given, and decoction of sarsaparilla with four grains of iodide of potassium ordered to be taken twice a day. In four or five days the sore had become clean, and had begun to granulate, when I discovered accidentally, the patient having no suspicion of its existence, another smaller sore on the opposite side of the inner prepuce. It was circular, without hardness, very slightly excavated, with a definite raised edge; the surface soft, vascular, and all but granulating. The same dressing was applied to it, and, like the first, it became a healing sore, and both were going on to cicatrize (which they did in three weeks, neither leaving hardness), when, in ten days from the commencement of the use of the iodide, siphilitic psoriasis broke out on the glans penis, on the scrotum, on the pubes, abdomen, and loins. The dose of the iodide was increased, but the eruption advanced, and, appearing upon the head and face, threatened considerable temporary disfigurement. At the same time, it seemed so little controlled by the means employed, that I thought it necessary to recommend a course of mercury. The gums were affected in three or four days, and the spots upon the forehead became stationary. The course of mercury was pursued for five weeks: by that time the spots had everywhere disappeared; but those on the forehead had left broad, yellow, circular stains, which only slowly wore out during the half-year following. The character of these spots had been this:—at first the upper part of the forehead looked mottled at half a dozen points near the roots of the hair: then distinct circular spots, of a faint red, were seen, a quarter of an inch in diameter; they were slightly raised and convex; as they enlarged, they became less elevated, and of a darker colour—a browner shade of red; and thin scales of cuticle began to separate from them. In ten days from the termination of the course of mercury, the integument at the inner part of one eyebrow, and one ala of the nose, became thickened, swollen, and red, assuming such an appearance as precedes siphilitic ulceration of those parts. The iodide of potassium was then given for three weeks, first in ten-grain doses, and finally half a drachm, three times a day. In four

or five days from the commencement of this medicine, the redness and swelling of the integuments had begun to decline. A week had scarcely elapsed from the discontinuance of the iodide, when a new eruption appeared; spots broke out on the face and forehead, spreading with a red and elevated edge, leaving the centre paler: for this the iodide was recommenced, and, as it did not act as quickly as before, five grains of Plummer's pill were given every night in addition. On this attack receding, the throat became troublesome; the tonsils had already been swollen and excoriated, but now an angry superficial ulceration, with a yellow edge, spread over the soft palate: this gave way at once to a gargle of decoction of bark with half a grain of corrosive sublimate to the ounce. Next a papular eruption appeared upon the forehead and face, and afterwards psoriasis at several recurrences; but these have gone away each time upon a week or fortnight's course of the iodide, and since the first outbreak, the attacks have been progressively milder. During the whole period, the patient's general health has been unaffected.

The two following cases exemplify the utility of mercury in progressive siphilitic disease commencing with psoriasis:—

A. B, about 30, in the autumn of 1827, had (which had several times happened to him before) excoriation following suspicious connexion, which healed in a few days. In December he lost strength, his knees became weak and slightly swollen; his legs ached, and he perspired at night. Several circular red spots now appeared on the forehead and loins, for which an occasional dose of blue pill and aperients and bitters were prescribed. The mouth was not affected with the mercury. He consulted me in May 1828, when I recommended the decoction of sarsaparilla with the extract; which he took for two months, experiencing great amendment during the first, and but little in the second, at the close of which he went into the country. In August he became worse; the spots which had before become paler, ulcerating, and two nodes forming on the tibia. He took small doses of corrosive sublimate, and began to mend. On the 26th of November I again saw him. He had now taken the corrosive sublimate about two months; the ulcerated patches were all healed but two; some of them had begun to ulcerate after the alterative course had been commenced three weeks, at which time the nodes ceased to be painful, and he lost the sense of weight, uneasiness, and aching in his knees and legs. But he thought that latterly

the nodes had increased in size, and had become more tender on pressure. I therefore ordered him to take larger doses of mercury. For a month he took ten grains of blue pill every night, and five grains for some time longer. Every symptom disappeared during this course, and he afterwards remained perfectly well.

A. B., aged 26, admitted into Middlesex Hospital, October 25, 1829, in April 1828 had gonorrhœa, followed by a sore on the glans, which broke out in June. He took mercury, and the ulcer healed. His mouth was sore a few days only. In October 1828, he was seized with what he thought a rheumatic attack; he had pain and stiffness in all his joints and of the loins, and was confined to his bed a fortnight. These symptoms subsiding, psoriasis broke out on his whole person, but most on the face, shoulders, and legs; at the same time he had sore-throat, which left him in a fortnight. The eruption, for which he has taken no medicine but an occasional aperient, has continued to the present time, having lasted a year; during which other symptoms have appeared. He has now spots of psoriasis that are nearly circular, and are slightly raised upon the shoulders, arms, fore-arms, and legs: some of them are grouped in clusters. Two situated upon the leg have recently begun to ulcerate; some of the others have ulcerated and have healed. There are two small nodes on the tibia, a large one on the left, one on the right side of the os frontis. They vary at different times as to size and painfulness, and that on the forehead has once disappeared: it now is the most tender, and aches every evening from five to ten. He sleeps well, and has no night-sweats. The nodes on the legs have been much more painful than that on the forehead; their amendment was spontaneous. The surface of the swelling on the os frontis is smooth, that of the nodes on the tibiæ granulated.—Blue pill and mercurial frictions were ordered, which were continued to the 23d of January, so as to keep the mouth moderately sore from the 1st of November to that time; by which the spots had faded, and the nodes on the legs had become free from pain and tenderness, and that on the forehead had entirely disappeared. There remained only brown discolourations where the larger spots had been, and some enlargement of the tibia.

Siphilitic psoriasis occasionally breaks out with the character of a protracted eruptive fever. Mr. Rose gives the case of

Thomas Wills, aged 40, who was admitted into the Coldstream Hospital on the 30th of November, 1815, with a superficial ulcer of some days' standing on the extremity of the prepuce. He was dismissed January 13, 1816. May 25, he was readmitted. He said he had had an attack of fever in the beginning of February, whilst on furlough in Essex; and after it had continued for some days, an eruption came out on every part of his body. The surgeon who attended him thought at first it was small-pox. It was probably, Mr. Rose conjectured, lichen, with papulæ of a large size. They have left large stains, which are slightly depressed, and becoming of a natural colour in their centres. The eruption had continued very thick for a week, and then went off in scurf.

This case is evidently of the same kind with the disease described by Dr. Bateman, in the fifth volume of the Medico-Chirurgical Transactions, under the title of a "tubercular eruption of a siphilitic appearance, but curable without mercury." Dr. Bateman observes, that during the preceding two years he had seen from eight to ten instances of it, two only of which occurred in men. He speaks of the preliminary period lasting from a fortnight to three weeks, during which rheumatic pains, languor, and loss of strength were present; and of roughness and soreness of the throat, with slight tickling cough on the appearance of the eruption, which he describes in these words:—"The eruption, which had extended over the whole body in all the cases, at the time when I first visited the patients, consisted of a number of small circular spots, from one to two lines in diameter, slightly elevated above the surface of the cuticle, but flattened on their own superficies. They were at first of a dusky rose colour, smooth, and shining: but subsequently they became somewhat darker, or of a more purple or chocolate hue; and the surface of some of them at length exhibited a slight tendency to desquamation in the centre. This tendency to scale was generally most remarkable in the tubercles affecting the legs, which were somewhat larger than those of the rest of the body. A minute scaly crust was also occasionally formed upon the centre of some of those which were seated in the forehead, when the eruption was at its acme or on its decline." Dr Bateman notices, besides, as present, inflammation of the tarsi and tunicæ conjunctivæ, and tenderness of the scalp.

The features of the following case, which was certainly siphilitic and of the nature of psoriasis, identify it with the preceding:—

Charles Clarke, aged 38, towards the end of September 1838, contracted a gonorrhœa that was followed in a week by an ulcer at the side of the frænum. A week after the appearance of the ulcer, having been exposed to cold and wet, he was taken with shivering, and pain in the back, followed by a hot stage, attended with pains of the back, legs, shoulders, arms, and head. This attack of fever had subsided in something more than a week, leaving him debilitated, when there broke out a profuse crop of slightly-raised, irregularly-shaped flat spots, first on the thighs and legs; then on the body, and penis, and scrotum; then on the arms, head, forehead, and face. The eruption was general in three days; on the fourth day, October 27, he came to the hospital, and was ordered as an out-patient six grains of blue pill, with half a grain of opium, daily, and six grains of iodide of potassium in two ounces of decoction of sarsaparilla, three times a day. This plan he followed for three days, and was then admitted an in-patient under Mr. Tuson. He was covered with eruption, which at first sight looked like small-pox. The spots, which were elevated and of a brownish-red colour, had a glistening appearance, from a fine layer of semi-opaque lymph and epidermis on the summit of each. The mouth was sore from the mercury, which was ordered to be discontinued, and in its place four grains of the iodide of potassium to be taken three times a day. The mouth continued sore for several weeks. After a few days the eruption began to decline, the patches lost their elevation: on their desquamating, brown stains were left, which gradually faded. He had no sore-throat.

It is presumable that in this febrile form of the complaint no specific treatment is requisite.

SECTION II.

Siphilitic Lichen.

The eruption in siphilitic lichen consists in acuminated pimples, of a red colour and variable magnitude, from the minutest size to a sixth or a fifth of an inch in diameter. They are either separate or in clusters. The two forms often coexist; the general eruption being of larger papulæ, interspersed here and there with

oval groups of lesser ones. Sometimes the whole cutaneous surface is covered with extremely minute papulæ, the face and forehead having a swollen appearance. The separate lichenous papulæ are formed upon the orifices through which the pilar hairs come out. The point of each papula is grey, from lymph effused beneath the cuticle. After some days the spots become paler, a scurf separates, and a slight stain, effaceable on pressure, alone is left. As the first crop of pimples fades, fresh ones often arise. Occasionally pus is formed in some of the papulæ, but there is no ulceration: the pus dries, forming a scab, which, when it separates, discloses no eschar or depression. Sometimes an eruption occurs, which it is impossible to dissociate from siphilitic lichen, in which all the red points fill with transparent fluid, and then with pus; or the eruption becomes pustular at once.

The distinguishing feature of the lichenous variety of secondary siphilis is, that the attack bears an inflammatory character, and is ushered in by symptomatic fever, which continues a longer or shorter time after the eruption has appeared. Siphilitic pains accompany the fever and eruption; they are commonly more severe than in psoriasis, and affect the joints in a greater degree, the knees especially, and the ankles, which are liable to become swollen. These pains are sometimes most severe at night. The throat is liable to be simultaneously affected in the same way as in psoriasis,—namely, with inflammatory excoriation. Loss of hair occasionally attends this form of the disorder. Iritis is more frequently combined with lichen than with either of the other forms of cutaneous siphilis: this evidently has to do with the inflammatory state of habit that prevails in, and probably occasions, the lichenous variety. The bones are least frequently affected in this form of the disease. Mr. Carmichael, through whose original observations the characteristic features of the lichenous variety of siphilis were first determined, observes of his experience in it—"In a few cases swellings occurred over the tibiæ, and might be denominated nodes. They differed, however, from the siphilitic node in possessing much more of the inflammatory character, and in affecting the coverings of the bone and not the bone itself; for they appeared suddenly, and after continuing a few days as rapidly disappeared, without the exhibition of mercury." In other words, in Mr. Carmichael's experience, the periosteal affections in this variety of lues have the same character which the other local disorders present.

In the lichenous form of siphilis, as well as in the preceding, cases occur that are so trivial, although perfectly identifiable, as not to disturb the health sufficiently to render medicine necessary.

The treatment of venereal lichen has to be conducted in reference partly to the febrile disturbance which attends it, partly to the vitiated habit of body from which it springs. In the febrile or inflammatory stage, confinement to bed, low diet, salines with antimonials, aperient medicine, and even venesection, if the inflammatory symptoms run high, are to be prescribed. When the febrile symptoms are on the decline, if the patient appears to be quickly picking up strength and health, no further treatment may be then advisable. But if, as it frequently happens, the patient remains out of condition, the throat excoriated, and fresh papulæ appearing; or if, no strongly marked febrile symptoms having ushered in the disorder, the patient has been from the first in a cachectic state only, one of the antisiphilitic medicines is necessary; and among these the iodide of potassium is to be preferred: it has appeared to me even more promptly efficacious in this stage of this form of siphilis, than in psoriasis. The other palliatives of the same class are preferable to mercury. Nevertheless, in some cases of a protracted nature, here, as in psoriasis, an alterative course of mercury is to be recommended; but perhaps it is then more useful from its general influence upon the system than for its specific influence on the disorder. In the inflammatory or most virulent form of lichen, mercury is certainly prejudicial.

I shall now exemplify some of the principal features of the lichenous form of siphilis by the detail of cases, selected to illustrate the orgin and progress of the complaint, and the rules of treatment above laid down.

Thomas Campion, mentioned by Mr. Rose, was admitted into the Coldstream Hospital, June 3, 1815, with a large, not very deep sore, on the edge of the inner membrane of the prepuce. It had no disposition to granulate, and he had an open bubo in each groin. The sore, from his account, had been present a fortnight, the buboes a week. The former was healed on the 14th of June; and on the 24th of that month, after feeling chilly and feverish for two or three days, an eruption of inflamed papulæ appeared over his body, and about his forehead and neck. On the 28th, the febrile symptoms had disappeared; but the eruption was very thick, and his left eye was inflamed. The inflammation did not appear to have extended to the internal tunics. July 5th—His

eye was well; the eruption had begun to fade, coming off in scurf. He had taken small doses of Epsom salts and antimonial powder since the attack of the first symptoms. This was omitted, and decoction of bark and nitric acid prescribed. July 12—The symptoms had nearly left him; the buboes were both healed. July 21—He was dismissed. He returned four days afterwards with violent pains in his limbs, increased at night. His ankles were swelled, and some fresh papulæ had appeared about his face and neck. By the use of the warm bath and Dover's powder these symptoms were removed. He was dismissed cured on the 21st of August.

In the next case given by Mr. Rose, lichen occurred after "an indolent sore close to the edge of the frænum, which had been present two months. It was healed in thirteen days, with some hardness and thickening." The primary sore, in the case immediately succeeding, is described as "situated at the extremity of the prepuce, having thickened edges, and some induration." In another, followed by lichen, upon subduing a phimosis, "a deep foul sore was brought into view on the left side of the frænum, of the size of a silver penny, with hard and irregular edges." This was healed, with much hardness, in twenty days.

Thomas Robins, aged 28, came under the care of Mr. Rose, June 29, 1816, for pain in his shin-bones and knees, increased when he was warm in bed. A very copious eruption of lichen in large papulæ over every part of his body, with inflammation of both irides. The pains in the limbs had been present about a month; the eruption had appeared about a week; the inflammation of the eyes only three days: he had had a similar eruption, though not nearly so copious, about three months before. He got well without mercury; but at some date subsequent to the 6th of October, he had over his shoulders and buttocks, and at one time on the soles of his feet, a few small vesicles, which came in clusters on a thickened and elevated patch of skin. They soon filled with a puriform fluid, and when they burst left a thin scab. The thickened integument was of a dark red colour, of an irregular form, and in general about an inch in its longest diameter. It remained for a long time, but produced no effect on the general health.

Thomas Kelbay was admitted into the Coldstream Hospital, on the 16th of March, 1816, with a small deep circular sore, with hard irregular edges, immediately behind the corona glandis, and

two small sores on the outer edge of the prepuce: he had likewise a purulent discharge from the urethra. May 8—The sore behind the corona was beginning to granulate. It had proved very troublesome, several deep sloughs having formed in it at different periods. A pustular eruption had appeared on his body and limbs. The pustules were very small, not much larger than pins' heads, and were on slightly elevated and dark red bases. He had pain in the loins, but no distinct febrile symptoms; tonsils enlarged; ulceration at the back of the pharynx. May 15—The eruption had extended to his forehead, chin, ears, mouth, and neck. Numerous tubercles could be perceived under the integument on the inner part of the right leg; they were quite moveable, and half the size of garden-peas. The right ankle swelled at night, and he complained of pain in the upper part of the tendo Achillis. May 20—Threatened iritis of the left eye. 26—Many of the pustules had burst, and formed a thin crust, and fresh ones have continued to come out. June 1—The eruption covered every part of his body. The pustules had increased in size, but were still a good deal smaller than those of small-pox; in the face they were beginning to scab. On June 15, July 1, August 14, and October 2, he had fresh attacks of pustular eruption, the last fainter and with less disturbance than any of the preceding ones.

Elizabeth Sinclair, aged 25, was admitted into the Middlesex Hospital, Nov. 2, 1839. About six weeks previously she had contracted gonorrhœa, followed, in a week, by sores on the inner surface of the labium. About three weeks after this, she felt pains in the legs, and was languid and out of health. In another week the pains became general, affecting her entire person, accompanied with chills, followed by heat of skin, thirst, and loss of appetite. At the same time a crop of lichen broke out upon the back and shoulders, which became thicker daily, and spread over the chest and abdomen, and forehead. The pains continued very severe for ten days, since when they have been partial and occasional only. At her admission, the papulæ on the back were of two kinds, large single papulæ, and groups of smaller ones; on the forehead they were of small size; on the chest and abdomen few and large only. The tonsils were swollen and excoriated. There were two small ulcers, without induration, upon the inner surface of one labium. Her gums were swollen, and had the appearance of being affected with mercury. Not to lose the

benefit of the mercurial course which it was supposed she had begun, she was ordered five grains of blue pill every night, and the mouth became sorer. The eruption slowly faded, and the ulcers on the labium improved. About the 17th, a new crop of papulæ appeared on the back of the neck and behind the ears, which itched greatly. Nov. 20.—The mercury was discontinued, and seven grains of the iodide of potassium, in decoction of sarsaparilla, were ordered to be taken three times a day. On the visit three days afterwards, a very manifest and striking improvement had taken place in her health and appearance, and she was discharged in about three weeks perfectly well.

Patrick M'Guinness was admitted an hospital patient, under the care of Mr. Carmichael, Jan. 7, 1812, on account of a small superficial ulcer on the prepuce, without any surrounding induration, that had existed three weeks, and a large tumour in the right groin, containing matter. Nitrous acid ordered. January 25—The ulcer of the prepuce had healed, the bubo had ulcerated, and the enlarged gland was projected through an opening on the skin, forming an ulcerated tumour of considerable size. Feb. 6—A thick eruption of small papulæ of a red colour had appeared on his face, neck, and shoulders, attended with considerable fever, and severe pains in his shoulders, elbows, knees, and ankles. He also complained of soreness in his throat, and difficulty of swallowing. On examination there was not any ulcer, but a general inflammation of the fauces, and a peculiar raw and excoriated appearance of the back of the pharynx. He was directed to discontinue the nitrous acid, and to take the antimonial solution. February 22—The eruption continued: many of the spots, after forming minute pustules in their acuminated tops, had declined in exfoliation of the cuticle, while fresh papulæ at the same time appeared in other parts. He complained of the severity of the pains, particularly in his knees, which shot along the muscles of his legs, but he did not complain of any pain affecting the tibia: his pulse was 112, with considerable thirst and restlessness. Twelve ounces of blood were taken from his arm, and the antimonial solution continued. The blood taken was buffed and cupped, and he felt considerably relieved after this depletion.

March 1—He was directed to take a decoction of sarsaparilla in conjunction with the antimonial solution, the febrile symptoms having nearly subsided, and before the 8th the eruption had everywhere declined, and in some places disappeared. He still com-

plained of the pains in his joints, which, however, were considerably alleviated. As a remedy for these, fifteen grains of the compound powder of ipecacuanha were ordered: the decoction to be continued, and the tepid bath to be daily employed. Under this plan his pains were soon removed, and the eruption disappeared, leaving the skin discoloured with indistinct red marks. March 15—He was discharged well.

On the 1st of May he returned, complaining of severe pains in his joints, and an eruption of papulæ on his arms. His pulse was 110, with thirst and general fever. He stated that since he left the hospital he was exposed to the inclemency of the weather, and that he had been affected with three several crops of the eruption, accompanied with pains resembling those of rheumatism. He was bled to sixteen ounces, and the antimonial solution ordered. The blood taken from his arm was thickly buffed. His pulse was next day reduced to 90, and the pains were considerably alleviated. 10th—The eruptions had declined, and there had not appeared any fresh spots. He stated that his hair was falling off. 17th—The ankles were swelled and painful. Alterative doses of calomel, with antimonial powder, ordered; half a grain of the former, and three of the latter, three times a day. Under this plan his pains were relieved, and his complaints to all appearance removed. Discharged on the 7th of June.

SECTION III.

Ulcerative Affections of the Skin.

It has been already mentioned that ulceration occasionally takes place in protracted psoriasis of the common description; but the ulceration is superficial and limited, and does not extend deeper nor materially wider than the mere surface of skin that has been the seat of the blotch; it is rather excoriation than ulceration, and it soon spontaneously cicatrizes. In that form of psoriasis in which the patches are clustered in groups, ulceration is more frequent, and is liable to assume a virulent aspect, to destroy the whole thickness of the skin, and to evince a disposition to spread. I have never, however, seen the complaint in this form intractable to medicine, or presenting that degree of virulence which belongs to the ulcers that follow the eruptions now to be described. These are, lepra, tubercle, ecthyma, rupia. I have placed lepra first on

the list, because its features are transitional between psoriasis and the other eruptions named. Lepra does not necessarily ulcerate; in this it approaches psoriasis, as well as in its scaly character; but its ulcerative form, on the other hand, is liable to exhibit the utmost virulence, and on that account it deserves a place under the present head.

Mr. Babington's brief note upon psoriasis and lepra, in Palmer's edition of Hunter, is seemingly at variance with what I have just advanced. Having observed, that "scaly eruptions are very common in venereal cases, but they differ little from those which occur from other causes: they appear generally in small circular spots, but they vary much in the degree of elevation, the size of the spot, and the depth of its colour; yet they never assume the copper tinge of the tubercle: the colour is rather sandy, and is in almost all instances nearly effaceable by pressure;"—Mr. Babington adds, "the difference of colour, the superficial origin of these eruptions, and the total absence of ulceration in all forms and stages, sufficiently distinguish them from tubercles." Now I have mentioned a case (page 74) in which psoriasis on the forehead left the true coppery stain to which Mr. Babington refers as peculiar to tubercle; and I have several times witnessed the supervention of the ulcerative stages both of psoriasis and lepra, which I have described and shall exemplify. I suppose that the apparent contradictoriness of our statements arises from Mr. Babington preferring to place the more serious forms of lepra under a different head—that of tubercle namely; ulcerative lepra he may consider to be lepra on which tubercle has supervened.

Lepra.—The following is Dr. Willan's account of siphilitic lepra:—"In the venereal disease circular patches sometimes appear, which resemble those of the lepra nigricans in size and colour, but which are not incrusted. The dryness and harshness of the skin, so remarkable in the lepra vulgaris and alphoides, do not occur in the venereal lepra; its patches, when somewhat advanced, being as soft and pliable as other parts of the skin. It is, however, proper to observe, that every patch originates from a small, hard, reddish protuberance. As this gradually dilates, the increase of its circumference is not attended with an increasing elevation of the centre; on the contrary, the sides of the patch are somewhat raised, and the central part of it appears a flat surface, covered with thin white scales. The patches are generally distinct, and at a distance from each other. There is seldom seen

any of them exceeding the size of a shilling; yet it is probable they might obtain a greater magnitude if the progress of the disease were not arrested by the use of mercury. When the constitution is under the full influence of mercury, the sides of the patch shrink and become paler; the centre is also depressed, but the desquamation proceeds slowly, and the disease cannot be removed without a perseverance in the course for six or eight weeks. A circular red spot usually appears for some weeks in the place of every declining patch, and a minute shallow depression like a cicatrix is left at the centre; but no permanent discolouration of the skin remains. The leprous form of the siphilitic eruption takes place, like other venereal eruptions, at very different periods after infection in different cases. If no medicines were employed, it would at length terminate in ulcerated blotches."

Nothing can be more faithful than the preceding description; but it applies to the mildest form of siphilitic lepra, of which the deficiency of scales, mentioned by Dr. Willan, is a remarkable characteristic. But the picture of the disease is imperfect without the following touches by Mr. Carmichael:—"If mercury is not employed," observes Mr. Carmichael, "the eruption proceeds to ulceration in the following manner. Each spot is covered by scales, or by scurf, which is thrown off and succeeded by another; every succeeding scurf which is formed becomes thicker than the preceding, till at length it forms a crust, under which matter collects, and it becomes a true ulcer; in which state it spreads but very slowly." Reserving for future consideration the question of the propriety of using mercury in these cases, I would add, that in the most virulent forms of lepra, the quantity of desquamation is often considerable, the patch of inflamed skin being covered by numerous fine layers of white papery glistening cuticle; and that finally, when the crust formed of agglutinated secretion and layers of cuticle separates, the ulcer which follows is capable of spreading as rapidly as in any form of secondary siphilitic disease, assuming features which will be given with ecthyma.

Tubercle. — All the siphilitic eruptions which belong to the head of tubercle are not ulcerative. A woman was a patient in the Middlesex Hospital, with a crop of red, glossy, berry-like tubercles, of the size of peas, upon the lower part of the face, which, from her history, were probably siphilitic, and went away with mercury. A man who had been my patient with scaly erup-

tion, several of the patches of which had gone into superficial ulceration, returned at the end of two months with oval tubercles on his back and shoulders, at the point where the scaly eruption had been. They were convex, of a light pink colour, rather mottled in appearance, some of them an inch in length. In some there was sensation, but not amounting to pain. He was otherwise in good health. Mercury was given without any effect. In three or four months afterwards these tubercles spontaneously went away.

Common siphilitic tubercle is a raised, oblong, or circular convex patch of soft, thickened, red, inflamed skin, the surface of which, before long being excoriated, becomes covered with a thin crust; that separating, discloses a foul or yellow ulcer, of greater or less depth. Tubercles of this kind are liable to form on the forehead, eyebrows, nose, and face; on the chest and back, and on the limbs. They are the source of the disfiguring ulceration to which the face is liable in siphilis. Upon the brow, the ulcer sometimes spreads in an irregular serpentine course, healing at one end while it progresses at the other. The ala or tip of the nose, however, are parts more frequently eaten away. The ulcer proceeding from this source is slow in its progress, and continues surrounded by a considerable extent of inflammatory thickening and redness. Upon the nose and cheek, ulcers of the present kind are liable to crust over; when it is only known whether the ulceration is progressing or not under the crust, by the continuance or cessation of soreness, pain, or burning in the part, and by the increase or diminution in the inflammation of the surrounding integument. These ulcers upon the body and limbs are more or less circular, seemingly deep from their raised, thick, red border; they have a foul surface, and enlarge very slowly.

The following is Mr. Babington's description of tubercle, referred to at page 86:—

"The original seat of the tubercle is probably in the sebaceous glands, certainly in some structure which is below the surface of the cutis. This is sufficiently evident from its aspect at the period of its commencement. It appears, in the first instance, as a small hard substance, like a pea, which may be felt by the finger, before there is sufficient discolouration to attract the eye. At this period, the eruption is scarcely discernible if the light falls directly on the part, though, if it is viewed by a side light, the prominence

sufficient to cast a distinct shadow. However, this stage is of short duration; the inflammation soon reaches the surface, and the spot then wears the appearance of a small red elevation, evenly rounded on the surface. In the next place, the cuticle dies and becomes detached from the cutis; but it usually remains for a time, forming a horny cup, which covers the surface, and protects the formation of a new cuticle beneath. In this stage, it frequently resembles a large vesicle, but the appearance is deceptive. If the dead cuticle be removed by a probe, not a particle of fluid will be found under it.

"The tubercle may remain in this state with little change, except that it slightly enlarges, and that successive layers of cuticle desquamate from the surface. But it often happens that it goes on to ulceration. In such cases, the ulcer always commences at a central point, which is slightly depressed, and may be distinctly seen on the first removal of the cuticle, and which appears to be the orifice of the sebaceous duct. As the ulcer proceeds, it usually destroys the centre of the tubercle only, and leaves an indurated and elevated portion, by which it is encircled and separated from the sound skin. In the progress of the ulcer, this tubercular thickening continues to precede it, so that there is always a margin of red induration, more or less marked, as the powers of the system are greater or less; frequently of considerable breadth in those who are strong and vigorous, but in the feeble often so slight as to be scarcely distinguishable; yet in all cases leaving, as it subsides, the peculiar brown stain which is the chief characteristic of the tubercle."

Ecthyma consists in an eruption of large flat pustules, with an inflamed base. They are of variable magnitude, from a third to more than half an inch in diameter. They are seldom numerous; they are liable to appear on the body, on the limbs, and on the face. If the secretion at first forms a crust upon them, the crust does not remain, but the pustules shortly become ulcers.

The character of these ulcers is strictly phagedænic; not in the sense, indeed, in which that word has been before introduced in this account of siphilis, but in its general sense. The primary phagedænic ulcer has commonly an irregular outline, may eat deeply, and the discharge from it is capable of producing a specific ulcer by inoculation. The secondary phagedænic ulcers which follow ecthyma, or virulent lepra, or rupia, are, on the other hand, at their commencement, always circular; they are

shallow, and inoculation with the matter secreted by them does not produce an ulcer. As the secondary phagedenic ulcer spreads, it commonly retains for a time its circular outline; the skin immediately surrounding it is red and inflamed, and slightly thickened, to the distance of a sixth of an inch or more; the edge of the ulcer is yellow, with a few red points showing through it; the ulcer does not go deeper than the skin; its surface is therefore level. The central part is often covered with healthy granulations, while the edge is eating on with the character above described. Approaching towards the edge, the surface becomes covered with a gradually thickening layer of adherent yellow secretion, with granulations showing through it. Sometimes the surface of the whole ulcer continues a yellowish grey, with red points. The central part, after exhibiting healthy granulations for some time, will cicatrize; but this more commonly happens to one edge and part of the centre at once, the ulcer progressing with its unabated phagedenic character at the remaining segmentary margin. Sometimes the ulcer becomes elongated, and, healing at its middle, becomes two. Phagedenic secondary ulcers are extremely painful, and leave, on healing, disfiguring cicatrices.

Rupia.—The eruption commences with a diffused redness upon a patch of skin. Upon this a flat vesicle forms, of the size of a silver penny, or larger, the secretion in which speedily crusts. The same action continuing, new layers are successively formed, each larger than the last; so that what seems a yellowish-black conical horn gradually arises from the skin. Below this the skin has progressively ulcerated, to an extent measured by the last-formed layer of crust; a ring of inflamed skin surrounds the margin of the crust; if the crust is forcibly detached, the ulcerated surface is found red, vascular, and honey-combed—an organised secreting surface. The crust separating, the ulcer is liable to spread to a considerable magnitude, with the phagedenic character just described.

With either virulent lepra, tubercle, ecthyma, or rupia, indifferently, secondary ulceration of the integuments of the head and of the lower part of the face has one character. It is always incrusted; and if the crust is detached, a new one forms. The ulcer is circular, and most virulent at its edge; the centre sometimes healing, while the circumference or a segment of it is progressive.

Rupia is liable to appear over the whole body, but generally the spots are but few at a time. When the disposition is rife,

large prominent vesicles full of serum sometimes appear among the crusted eruptions, and bursting, expose an excoriated surface, which dries up and heals.

Ulcerative cutaneous disease constitutes the most formidable, but happily the least frequent, variety of secondary siphilis.

The complaint usually declares itself in a few weeks after the appearance of the primary sore. It is sometimes ushered in by pains in the back, and shoulders, and limbs; but the eruption with which it commences is partial, and seems insignificant; often amounting to no more than an incrusted patch upon the head, or a few leprous spots, or one or two patches of rupia on the shoulders, or three or four phlyzacious pustules on the legs. The throat is liable to be simultaneously attacked, when ulceration either of the tonsils or pharynx manifests itself, which for a time appears the more serious affection. It rarely, indeed, happens that the two progress with equal virulence. The latter, as will subsequently be considered, is liable to remain the principal malady. But if, in the other case, the skin disease advances, the ulceration of the throat is found to give way to the remedies employed, and commonly does not reappear, the subsequent attacks of sore-throat throughout the malady being limited to excoriation.

The present form of constitutional siphilis differs from the scaly and the lichenous, especially in this, that after the first outbreak has taken place, instead of being mitigated, it is for a period either steadily progressive, or after each remission it returns with increased virulence. Yet there are not wanting cases that display a comparatively mild character throughout; in which, for instance, no symptoms may be present beyond partial ulceration of the eyelids, or in which two or three ulcers on the body and limbs alone occur, leaving the patient, after the lapse of a few months or a year, not worse in constitution and not disfigured. With these milder forms, however, there are liable to be combined iritis, and nodes upon the bones, which in the worst cases seldom supervene.

But in the worst cases, if exempt from these, the remaining features are tremendous. The head covered with painful encrusted ulcers; the eyebrows ulcerated, and partially or wholly destroyed; the soft part of the nose eaten away, or falling in from ulceration of the cartilaginous septum; the spongy bones necrosed; the palate carious; the tonsils and tongue swollen and excoriated; the gums spongy and sore; ptyalism present, with horrible fœtor

of the breath; the ears tumefied and raw; phagedænic ulcers on the body and limbs, with sympathetic contraction of the joints. Such ravages are liable to take place in the natural course of the disease; but their heightened and most frightful character is only seen when the effects of mercury, in aggravating every symptom, and inducing general caries of the bones, are superadded.

As the habitudes of the disease are changed in this variety, so should be the principles of treatment. No good results here from giving the disease its free course; its manifestations, on the contrary, should be from the first repressed by every available means.

The remedy principally to be relied on is the iodide of potassium, which commonly requires to be administered in doses of a scruple three times a day; but it is proper to begin with smaller doses, giving at first five or seven grains only, and gradually increasing the quantity, which may thus be raised to half a drachm, with half a grain to a grain and a half of iodide in combination. I have not had occasion to go beyond this dose, and have in most cases found all the good to be obtained from the remedy obtainable by less. Sometimes it is found beneficial to continue the use of the iodide in scruple doses three times a day for two or three months at a time; when it happens that, although fresh ulcers are continually breaking out, while the first are healing, yet on the whole the patient's strength and general condition are progressively improving under the treatment. In other cases the influence of the iodide is temporary only, and to reacquire efficiency it must be disused for a fortnight or longer, and this frequently. Change of air is often highly beneficial in ulcerative siphilis; but least so at its most virulent period. It tells most when the complaint is on the turn, or when it exists in a less aggravated form. Opium is beneficial, first by calming pain and giving sleep; secondly, by preventing the iodide of potassium from disordering the system. Stimulants, as it will be supposed, are often necessary; wine or brandy, with the most nutritious food the stomach will bear. Mercury in general does so much harm in ulcerative siphilis, that one is unwilling to admit it in the list of remedies. Nevertheless, when the health is unbroken, and mercury is new to the constitution, either at the beginning or in the progress of the disease, a brief course of mercury is occasionally serviceable; sometimes it may be advantageously combined with the exhibition of the iodide. In mild

cases, as in siphilitic ulceration of the eyelids alone, mercury is found to be as efficient as the iodide; but it only removes the symptoms, and the iodide will do the same equally quickly, and with more safety to the patient's constitution. The local treatment of ulceration of the throat will be adverted to afterwards, but something has here to be said of the local management of the cutaneous sores.

The two best applications are the unguentum plumbi cum cretâ, and strong aqueous solutions of opium. Mercurial applications commonly cause pain; but occasionally lime-water and calomel, lime-water and corrosive sublimate, the white precipitate ointment, and even mercurial fumigation, prove beneficial. Washing the sores with a solution of nitrate of silver always does temporary good, but the practice is objectionable on account of the pain it gives.

I have now to illustrate the features and treatment of ulcerative lues by the detail of cases; and I shall first take occasion to advert to those instances in which the forms of the disease already treated of approach the present.

It has been observed that lepra is transitional between the scaly and the ulcerative varieties of secondary siphilis; that scattered spots of psoriasis will occasionally lead to superficial ulcers; and that clustered psoriasis will sometimes originate spreading ulceration. Among the out-patients of the Middlesex Hospital is one of the name of John Robinson, who presents the most aggravated instance of psoriasis conferta that I have witnessed. He has been under my care four years, with this history:—He assures me that, to his knowledge, he has had no disease of the genital organs for the last ten years; that then he had an ulcer, and went through a course of mercury; that he continued in perfect health for from four to five years, when he was attacked with pains, and an eruption on the skin, and sore-throat, for which he underwent treatment. When he came under my care, four years ago, he had psoriasis conferta on the forehead, head, back, and loins, with considerable ulceration upon the back. He took the iodide of potassium for a long time, and recovered; he has had repeated relapses since, but the eruption has not since gone to the extent of ulcerating. When the disease returns, which it commonly does within a month after its remission, he recommences the iodide, and gets well again; he is now just emerging from an attack. I have tried mercury in this case, both alone and in conjunction

with the iodide, but it does not disperse the eruption more quickly, and it weakens him. He is otherwise in perfect health and strength. In time it is evident that, with the assistance of the iodide, he will wear out the disease, and preserve his constitution unbroken, which, if mercurial treatment had been pursued, would long ago have sunk under it. The next case in inveteracy that I remember, of psoriasis conferta going on to ulceration, took place in a remarkably athletic middle-aged man; it had followed indurated chancre, which healed under not less than a two months' course of mercury. The psoriasis appeared before the mercurial course had terminated. The course, however, was begun late; the sore had existed from a fortnight to three weeks when the patient came under my care.

Of lepra, it has been mentioned that the greater number of cases may be prevented passing into ulceration; and in the passages extracted from Willan and Carmichael, mercury was the remedy spoken of as capable and necessary to arrest its progress. The latter observation does not accord with my own experience; in siphilitic lepra I have found the iodide of potassium much more efficacious than mercury, and have seen the ulcerative form assumed by the complaint during the use of mercury, after which its progress has been stopped by the iodide. However, there are natural differences in the tendencies of siphilitic lepra that deserve attention. Certain cases are more disposed to go into ulceration than others. When the blotch enlarges quickly, leaving the centre where it began pale and without scales, and the spreading edge is not much elevated or thickened, there is less likelihood of virulent ulceration; and the ulceration, if it occur, will probably be superficial only, like that of psoriasis. It is when the skin is thickened and tuberculous, and the patch enlarges slowly, and is covered with some thickness of cuticular scale, that ulceration is most threatened, and that mercury should be abstained from, and the iodide given in its stead.

The following case exemplifies the most virulent lepra:—

John O'Shaughnessy, in the autumn of 1828, had a primary ulcer and bubo, for which he took mercury. Before long, leprous eruption and ulceration of the throat followed. He was admitted into Middlesex Hospital in January 1830, with several large leprous spots on his limbs and body; a large ulcer on the instep, another on the shoulder. He took liq. potassæ, with sarsaparilla, and the ulcer on the instep healed. But lepra broke out univer-

sally. The patches became covered with a great thickness of papery scales, the skin beneath which felt thickened; the scales became a crust, and falling off, disclosed an ulcer. There were many of these ulcers on the limbs and body; the forehead and face were covered with them. The lips, the alæ of the nose, the eyebrows, were equally involved in ulcerated blotches. The patient suffered from burning heat of the body and face, and the ulceration of the lips produced ptyalism. The bones were not affected; but there was pain on moving the joints of the legs, and a small depot of serous matter formed in the right calf. Every remedy was now tried in succession, and all did temporary but very transient good, except nitric acid with bark, and mercury: these medicines made him worse. Having had him under my care a year, and the disease being unsubdued, I then ordered (Dec. 1830), at M. Magendie's suggestion, who happened to see the patient, a sixth of a grain of iodine, with ten grains of the iodide of potassium, three times a day. The good effects of the remedy were apparent after a few days: the skin became less red and heated, several of the crusts separated, and the ulcers put on a healthy appearance. In a month the patient had made a great amendment. But now the amendment ceased. The iodide was therefore discontinued; upon which the patient became worse. After a fortnight he resumed the medicine, with the same advantage as on first taking it. In a month the disease became again stationary. He then discontinued the iodide, to resume its use in a fortnight. By these means in five months he recovered his strength and health; but a few blotches would occasionally appear, upon which he again had recourse to the iodide. Afterwards a very severe relapse took place, of which he was cured in the Lock by the same medicines. When I last saw him, he had been quite well for some years.

Ulcerative tubercle, again, exhibits very different degrees of virulence. In one case under my care, occurring in a man sixty years of age, in which the disease followed primary phagedenic ulcer, and was attended with iritis, the ulcers that formed in the tubercles were shallow, and soon healed. In another case, which occurred in a gentleman towards fifty, whose constitution had been tried in India, the primary sore for which I attended him being phagedenic, a few cutaneous tubercles formed, which became shallow indolent ulcers, and were subordinate to painful glandular swellings, which slowly arose in the neck and in the

groin: each of these in succession came forward and opened, and for several months continued a deep, foul, indolent ulcer. They all, however, gradually dried up under the interrupted use of the iodide of potassium.

The following cases exemplify some more common varieties of tubercular ulceration:—

Henry Morrison, aged 39, subject to gleet for several years, in December 1838 contracted a sore on the corona glandis, for which he took three or four pills every day for two months. The mouth was only affected during the last week of the mercurial course; but he had numbness first of one finger, then of a second, and of the right side of the under-lip, following acute pain in it, and in the head. The two former after a while disappeared; the last symptom still remains. The ulcer healed in five weeks from the commencement of the mercurial course, but about the same time incrusted sores formed on the back of the head and sides of the face, and on the shoulders, and the throat became sore. He took sarsaparilla and other medicines, and became better, but relapsed; and finally, in June, came under my care as an out-patient of Middlesex Hospital, with a large and painful ulcer on the calf of the right leg. He was ordered fifteen grains of the iodide of potassium three times a day, in decoction of sarsaparilla, and the dose in a few days was increased to twenty-four grains. But it produced no salutary effect; the sore was as painful as before, and the integument of the nose became red, threw off thin scales, and threatened to ulcerate. He then took a twelfth of a grain of corrosive sublimate three times a day with temporary advantage; but becoming worse, he was admitted into the hospital in July. The iodide was then resumed in the dose of four grains twice a day, increased after a week to eight, and the ulcer was dressed with Peruvian balsam ointment. It gradually healed, but his face became heated, the integuments of the nose red and cracked, and a disposition to ulcerate manifested itself on the chin. Corrosive sublimate was now very reasonably prescribed (not indeed by myself), and afterwards blue pill; but the disease was on the advance, and the patient thought it made worse by these remedies. He then tried decoction of sarsaparilla with liquor potassæ, then decoction of bark with nitric acid, then quinine with dilute sulphuric acid, with no advantage. The iodide was tried in small doses; but now, in the smallest, it produced the severest headach, and he became weaker, the nose having ulcerated, and incrusted spots

forming on the cheek and lower part of the face: so all medicine was discontinued but occasional purgatives, and I allowed him full diet and porter. He became stronger, but the ulceration continued virulent, and extended itself. Then I tried the iodide again, with seven drops of laudanum to each dose, giving at the same time active aperient medicine almost every night. Under this plan the patient improved considerably; the crust separated from the nose, the ulcer upon which granulated and has healed. Then the face became more heated again; the iodide was therefore temporarily relinquished; and a purgative being taken every night, the inflammation lessened. The iodide being afterwards resumed, agreed with him, and he was finally discharged materially better.

John Saxon, aged 31, was admitted into the Middlesex Hospital in 1830, with secondary symptoms, which followed a venereal sore and a course of mercury. More than a year before, the integuments of the forehead became at two points puffy and tender, but not discoloured: these spots soon became red and broke, and then for many months the face was disfigured in the following manner:—There were oblong narrow ulcers of an irregular outline on the forehead, eyebrows, and bridge of the nose; the skin around each was red and swollen, but soft; these ulcers spread, healing at one extremity, and extending at the opposite: in this way both his eyebrows were destroyed. Every ordinary remedy had been tried, and each for a few days with transient benefit. I then prescribed iodine and the iodide of potassium: amendment followed, which was rapid and uninterrupted, and the patient became perfectly well. He afterwards had a slight relapse, which was cured by the same means. I have seen him within the present year, and he has since been in perfect health.

W. Donovan, aged 38, admitted into the Middlesex Hospital, October 11, 1836, eight weeks ago observed an ulcer upon the glans, for which he took seven pills, one each night; his gums became tender, and the ulcer healed. But he experienced general indisposition, and had pain in the back. Twelve days ago either a tubercle or pustule formed on the lower eyelid, giving rise to an ulcer, which has spread. He took one pill again at night for a week, beginning October 3: this brought back the tenderness of the gums, which, however, had remained spongy and tumefied. During that week his throat became sore, and an ulcer formed at the orifice of the penis. At his admission the whole of the

cutaneous aspect of the lower eyelid was occupied by a foul sloughy ulcer. There was a yellow excavated ulcer of the right tonsil, which was red and swollen: at the orifice of the penis there was a similar ulcer. The compound decoction of sarsaparilla with carbonate of soda was ordered, and Peruvian balsam applied to the eyelid. On the 15th, some amendment; seven grains of the iodide of potassium, in decoction of sarsaparilla, now prescribed three times a day: in two days more considerable improvement had taken place. On the 21st, the ulcer of the eyelid had begun to heal at the lower margin; the ulcer of the throat was well, and the ulcer of the urethra healing. On the 26th, the iodide, which had produced headache and gastric irritation, was discontinued. The patient left the hospital a fortnight afterwards, well; but the same form of disease afterwards returned: the patient was not then under my care.

Hannah Gregory, aged 42, towards Christmas 1837 contracted a venereal discharge, which lasted three months. Before it was well, several spots appeared on her chest and neck, which she describes as having been red and elevated; their surface became crusted over, and they ulcerated; and the throat became sore, and new spots, similar to the first, appeared on the body and thighs, and on the forehead and face, which likewise crusted and ulcerated. She took pills and sarsaparilla, and in the course of two or three months all the sores, except some upon the face, had healed, when she was admitted into the hospital, and took sarsaparilla and mercurial pills for a month. She was something better, but erysipelas of the head and face supervened, which reduced her extremely, and she remained some time in the hospital for the recovery of her strength. On leaving it she went into the country for two months, and returned to London quite well, and continued so about three months. Soft tubercles leading to incrusted ulcers then reappeared, and after some months she became my patient, being readmitted in July 1839, with ulcers of the face, a large ulcer on the right thigh, and two upon the left. These ulcers were extremely painful, pricking, shooting, burning. She was ordered a scruple of the iodide of potassium three times a day, in decoction of sarsaparilla: this, subsequently increased by the addition of half a grain of iodine to each dose, she has taken till the present time, (Nov. 1839,) with the exception of a fortnight in October. During this period her health and general appearance have improved, and all the sores, including several upon the face,

body, arms, and legs, which have broken out while she has been in the hospital, have healed but one. The sores which have latterly broken out have begun by tubercular thickening and encrusting of some part of the edge of an old cicatrix.

W. Woodgate, aged 22, admitted into Middlesex Hospital, Feb. 12, 1837. The preceding October an ulcer had formed at the side of the frænum, which was destroyed by it. The surgeon who attended him endeavoured for two months to heal the sore without mercury. Then the ulcer spreading, five-and-twenty grains of blue pill were given daily for three weeks, which produced salivation, and the ulcer healed. A fortnight, however, had barely elapsed before he observed a hardness about the spongy body, an inch from the orifice of the penis, and in a short time ulceration took place at the junction of the inner prepuce with the body of the penis, and matter was discharged from a cavity between the thickened integument and the spongy body. At his admission the gums were sore from the remaining effect of the former mercurial course and a few pills he had taken the preceding week. One tonsil was superficially ulcerated, and on the top of his head was a crust of the size of a sixpence, covering an ulcer. The penis was extremely painful. A probe introduced between the thickened integument and spongy body passed into an ulcerated canal three inches in depth; this was laid open, and a large extent of sloughy surface exposed. A carrot poultice was ordered, with opium at night. Under this treatment the surface became clean, and granulated for the most part healthily. But after a few days at two parts the surface put on the phagedenic character; it was yellow, with red points showing through it, and soft; the adjoining integument thickened, red, and angry. Feb. 28th, the phagedæna spreading, and having eaten a considerable hole into the urethra, nitric acid was applied to the whole ulcerated surface; and the decoction of bark, with dilute nitric acid, ordered. The ulcer had a much healthier appearance on the superficial slough separating: Peruvian balsam was ordered to be applied to it, and on March 4th, a scruple of the iodide of potassium, with a grain of iodine, to be taken daily in place of the bark. The ulcer now contracted rapidly, when, about the end of March, the medicine having been discontinued, the ulcer began at one part to put on anew the phagedenic character; and at the same time the ulcer of the throat, which had never quite healed, became more sore, and the ulcer of the scalp began to dis-

charge and spread; and seven or eight soft tubercles formed on the thighs and legs, which ran into ulcers. April 8th, these symptoms increasing, the iodide was resumed with daily improvement; the ulcer on the penis became perfectly healthy; those on the legs were covered with pale granulations. April 22d, the ulcers on the leg and head again spread. The largest on the leg was of a pale grey, with maroon-coloured spots showing through it; the margin inclined to yellow, with a dusky red border of skin. I then determined to try mercury again, which, administered in the form of blue pill and ointment, produced considerable swelling of the mouth, with ptyalism. The action was kept up for three weeks, and the medicine then discontinued, leaving, however, for three weeks more, some impression on the mouth. In a few days from commencing the mercurial course great amendment took place, and he completely recovered.

The following case exemplifies ecthyma:—

Thomas Edwards, aged 17, admitted into Middlesex Hospital, July 10th, 1827. He had had gonorrhœa six weeks, and a foul flat sore on the foreskin three weeks: on the legs there were a few large pustules. He was put upon mercury; other pustules appeared, but few in number, on his body and arms, and one on his forehead. The primary sore healed, but the pustules became painful ulcers, which, however, after a time began to granulate healthily and healed. Mercury was then discontinued, after a course of two months' duration. Three weeks after discontinuing mercury, the cicatrices began to burn at night; and two, one on the right instep, the other on the left ham, ulcerated anew. The ulcers were extremely painful; but he had rather gained flesh, and had no night sweats. Oct. 25th, ten grains of blue pill to be taken every night. 29th, the ulcers more painful; his joints stiff; a drachm of strong mercurial ointment every night; the pills omitted. Nov. 16th, he has grown fatter; the mercury has just begun to affect the gums, which remain slightly touched till Dec. 26th, when the mercury was discontinued. Before this several other cicatrices had ulcerated. The ulcer on the ham had elongated itself, and the middle part had healed; each end had a yellow phagedenic edge, against a raised border of angry integument. The ulcers are rather better after the application of nitrate of silver in substance or solution, or of the yellow wash. Fumigation, the black wash, the Peruvian balsam, have done rather harm than good.

Decoction of sarsaparilla, with the extract, ordered. Jan. 10th, ulcers still spreading. The forehead tender, and swollen at one part; painful node upon the tibia. Decoction of bark, with fifteen drops of muriatic acid, three times a day, ordered. 20th, great improvement; the ulcers have healed, the white precipitate ointment having been the local application. Feb. 18th, the nodes on the forehead and tibia are less, and without pain. There is an ulcer at the back of the pharynx; ordered to be touched with the linimentum æruginis. He soon after this went out nearly well.

The two following cases exemplify siphilitic rupia:—

Sarah Holloway, aged 24, in April 1837 had an ulcer of the labium, with discharge. She took two pills night and morning for a fortnight, and the gums were affected. The sore healed in three weeks from its first appearance. A fortnight afterwards she came to London, when her throat became sore, and continued so for six weeks, during part of which time she took medicine, and her mouth was again slightly affected. Three weeks after her recovery the sore-throat returned, and continued several weeks. It was healed by being touched with lunar caustic. In August 1837 an encrusted sore formed at the back of the head, and afterwards a second; afterwards a sore formed upon the shoulder, and her throat became again ulcerated. She was admitted into the Middlesex Hospital in April, and remained there four months. She had encrusted ulcers on the head at her admission, excavated ulcer of the tonsils, and a sore upon the shoulder. She at first took sarsaparilla with the iodide of potassium, became better, and then ceased to improve, when the oxymuriate of mercury was substituted for the iodide, but with no advantage: the ulcers became more angry, and rupia appeared in several patches in succession upon the arms and legs. Ultimately the iodide of potassium was resumed, and she became well. In January 1839 she was readmitted for five weeks with similar symptoms, from which she emerged on taking the iodide. In July she returned, and stayed in again two months: at the commencement of this period corrosive sublimate was again tried, when she became worse; but on resuming the iodide, which she took in the dose of a scruple three times a day, she became well. She returned a few weeks ago with an encrusted ulcer of the head, and a node on the tibia; for this the iodide was again ordered, and when I last saw her she was improving.

Elizabeth Chilcott, aged 42, became an out-patient of the Mid-

dlesex Hospital during the winter before last; she had patches of rupia upon the shoulders and limbs, the greater part of her face was tuberculous and ulcerated, the ears were swollen and excoriated, and she was profusely salivated. Some months before, she had had discharge and sores, and swelling in the groin, for which she had taken mercury. While her mouth was sore secondary symptoms had appeared; she had sore places on the head, and her throat was ulcerated, she says. However, she became better. After an interval the symptoms, for which she again took mercury, became aggravated till they reached their present state. I ordered the iodide of potassium in decoction of sarsaparilla, which produced immediate improvement; and in from four to five months, during which the disease was occasionally stationary, or progressive even, for a few days at a time, she had recovered. All this time she took the iodide, which was increased to half-drachm doses three times a day, and latterly, for a short period, combined with an eighth of a grain of corrosive sublimate twice a day. She remained well for about four months. In the autumn her former symptoms reappeared. Mercury was again administered, and she fell into a state of disease more aggravated than before. She then reapplied to me, and was admitted into the hospital at Christmas 1838, with tuberculous ulcers of the face, and encrusted and open ulcers on her back and limbs, and the right turbinated bone necrosed. I drew away the dead portion of bone, and prescribed again for her the iodide of potassium. She improved, but temporarily only; and although the medicine was continued, the disease extended its ravages: her head and face were covered with encrusted ulcers; her back and abdomen, and her limbs were covered with the same, or with open ulcers, and several fresh eruptions of rupia appeared every few days. Among the flat vesicles which became encrusted, full round bladders would form and break, and the surface appear excoriated, and then either go on to ulcerate, or scab and heal. Then other remedies were tried,—bark, with nitric acid, and the other antisiphilitic medicines,—without effect. At night she took opium. The use of the iodide was then resumed, and steadily persevered in, the dose being continually increased. From May 18th to June 19th she took three times a day half a drachm of the iodide, with first a grain, then a grain and a half, of iodine. At this time she experienced pain in the head, and extreme giddiness; but she had become materially better, most of the ulcers had

healed, few new vesicles now appeared, and she suffered considerably less pain. The iodide was now discontinued against her wish. She remained for a time nearly stationary, then fell back again. Corrosive sublimate in small doses having been given, she became worse. Then, in the latter end of August, I prescribed the iodide anew, in scruple doses; it had great efficacy, having been disused so long. She improved rapidly, and in October left the hospital nearly well. A month ago she returned with two or three small ulcers on the thigh and leg, that were angry and painful; but she resumed the iodide, and appears to be now all but well.

It is not my intention to enter, on the present occasion, into all the varieties of skin disease manifested in secondary siphilis; the rarer kinds are as numerous, probably, as are peculiarities of bodily habit, or the varieties of skin disease arising from other sources; to follow them is to look after single instances, not after classes. Those which I have endeavoured to exemplify are the forms into which siphilitic cutaneous disease moulds itself in the great majority of instances; and the necessary rules for the treatment of the other accidental diversities are easily deducible from the directions given for the treatment of these three. I hope that, in sketching these commoner forms, I may have added something to the mass of observation already current respecting them. For the first idea of grouping the varieties of cutaneous siphilis under these three heads, and the description and contrast of their prominent features, we are indebted to Sir R. Carmichael, in whose treatise, the most instructive after Hunter's—"On the Venereal Diseases which have been confounded with Siphilis," these views are expounded. Sir R. Carmichael went, indeed, a step farther, in which I have not thought the ground firm and safe enough to follow him. He ascribed these different forms of cutaneous disease to different kinds of primary local affections, and different morbid poisons. The scaly diseases Sir R. Carmichael supposed to be the consequence of indurated chancre; lichenous disease he traced to superficial ulcers, excoriation of the glans and prepuce with discharge, and gonorrhœa virulenta; ulcerative skin disease, to phagedæna. "I have not," he remarks, "in any one instance observed the eruption to be papular or tubercular when it arose from the true siphilitic ulcer, or to be scaly when it followed those eruptions which do not possess the characters of chancre, the indurated edge and base." And, certainly, the experience of

subsequent observers has borne out, to a considerable extent, the views presented by Sir R. Carmichael. Mr. Rose remarked, when pursuing the non-mercurial treatment, that most of the cases of papular eruption followed "ulcers which were not very deep, and which healed without difficulty, several of them having a thickened, but not a very indurated margin;" and to myself it has not happened to see any but ulcerative skin disease follow phagedenic sores. I entertain, therefore, the belief, that the association which Sir R. Carmichael pointed out is, to a certain extent, real; and that the same cause which renders one or other cutaneous disease more likely in any particular case, *has a tendency to give* the assigned character to the antecedent primary sore. But I see no reason for believing that cause to be a difference in the matter of infection; I rather conceive it to be some difference, and probably one of a temporary nature, in the habit of the party infected. Such an hypothesis appears to me necessary, or certainly the best that can be adopted, to explain the exceptions which exist to the associations pointed out by Sir R. Carmichael—exceptions so numerous as, in my opinion, completely to do away with the notion that those associations are essential ones. The exceptions to which I refer appear in facts which have been already narrated; —cases of psoriasis following common excoriation and unindurated chancre, given on my own authority; cases of papular disease, quoted from Mr. Rose, in which that form was preceded by indurated primary ulcer; and one case, at least, certainly, and others, again, of those given by myself, in which it was highly probable that the sore preceding ulcerative disease was not phagedenic.

To those who may remain disposed still to adhere to Sir R. Carmichael's hypothesis, and to view the exceptions as cases in which peculiarity of constitution has interfered, to modify and confound the distinctive characters of the effects of different poisons, I would suggest the consideration of other facts in the entire case.

In the first place, I have shown, by direct experiment, (page 17,) that inoculation with the matter from a phagedenic sore of the penis, upon a distant part of the cutaneous surface of the patient, may produce a circular sore with the characters of chancre.

Secondly, I have mentioned that the matter of a confirmed unindurated chancre passed by absorption through a bubo, and taken from the bubo and used to inoculate the same patient, may produce not an unindurated chancre, but a chancre with the utmost degree of cartilaginous induration.

Thirdly, in one instance that has fallen under my own observation, a wife, infected by her husband, has had indurated chancre and excoriated throat, and no other symptoms; her husband becoming at the same time my patient with virulent cutaneous ulcerative disease, and having on the penis such extensive and irregular cicatrices as to make it probable that the primary disease with him was phagedenic.

Fourthly, I would add, as perfecting the conclusiveness of this body of evidence, that the connexion of excoriated throat (which I have pointed out to exist indifferently) with either and each of these three forms of disease, the occurrence of iritis indifferently with each, and of muscular pains and loss of hair, and of periosteal inflammation—collectively, add strength to the belief that the disease is *one alone*, and that its diversities are accidental only, in the sense of depending upon no other cause than accidents of the habit of body of the persons infected.

SECTION IV.

Siphilitic Affections of the Fauces and Nose.

It has been mentioned that siphilitic affections of the throat present four different characters,—excoriation, superficial ulceration, excavated ulcer, sloughing ulcer.

I. *Excoriation of the mucous membrane of the fauces and nostrils* has been already described (p. 78) in connexion with siphilitic psoriasis of the skin, to which it is most allied in appearance and progress; but it equally attends the lichenous variety of secondary siphilis; and it is met with in the advanced stages of the ulcerative. It manifests itself in patches, which are alternately raw and covered with a moist scale of thickened epithelium, on the tonsils, the arches of the palate, and the pharynx,—on the tongue, the inside of the cheeks, of the lips, and of the nostrils. The tonsils, when so affected, are at the same time swollen; sometimes in such a manner that the projections of the surface cause deep fissures, the sides of which are often mistaken for ulcers. Mr. Hunter appears to have had the affection I am now describing in view in this passage: "There is another disease of these parts; which is, an indolent tumefaction of the tonsils, and is peculiar to many people whose constitutions have something of scrofula in them, producing a thickness of the speech. Sometimes the coagulable

lymph is thrown out upon the surface, and called by some, ulcers, by others, sloughs." Mr. Hunter, however, did not consider this appearance venereal. Mr. Babington, who is evidently familiar with the siphilitic excoriation which I have described, does not separate it, however, from the next form I have to speak of: likewise he says of it, "It cannot be denied that in the majority of cases it is not venereal; that very often mercury aggravates, instead of removing it; that it may take place where there is no suspicion of siphilis in patients labouring under psoriasis or lepra; and that, in general, the presumption is so far against its venereal origin, that the treatment should be rather directed to the regulation of the diet, and to the prevention of acid secretions in the stomach, than to the extirpation of the venereal virus."

II. *Superficial ulceration of the mucous membrane of the fauces.* —Mr. Hunter says, "There is another complaint of those parts, which is often taken for venereal; which is, an ulcerous excoriation, where the ulceration or excoriations run along the surface of the parts, becoming very broad and sometimes foul, having a regular termination, but never going deep into the substance of the parts, as the venereal ulcer does. There is no part of the mouth exempt from this ulcerous excoriation, but I think it is most frequent about the root of the uvula, and spreads forward along the palatum molle." Mr. Hunter adds, "That such are not venereal, is evident from their not giving way in general to mercury; and I have seen them continue for weeks without altering, and a true venereal ulcer appear upon the centre of the excoriated part." This appearance, however, I have several times seen, in genuine siphilis, spread over half of the soft palate, with the character of superficial phagedenic ulceration; that is to say, the greater part of the ulcer has been covered with granulations, but a yellow surface has existed towards the margin of the ulcer, the mucous membrane adjoining being a bright red.

One is very liable in the study of disease to run after, and to be misled by, trivial analogies; but I may nevertheless mention that I have twice seen this form of sore-throat in connexion with non-ulcerative lepra;—and there is some resemblance in appearance between the superficial spreading ulcer of the throat, and the spreading circle of lepra on the skin; the action in each being developed at the circumference, subsiding within, which connecting it with the disposition of lepra to ulceration, would lead one to identify the two as one, acting on different surfaces.

III. *Excavated ulcer.*—The ordinary seat of the excavated ulcer is the tonsil, which, with the adjacent parts of the palate, is swollen, and of a more or less bright red: the ulcer is a deep hole, with an abrupt edge, generally presenting a foul yellow or a dirty-white surface; sometimes but much less frequently the surface of the excavation has a brownish-red colour. Mr. Hunter says, "The true venereal ulcer of the throat is, perhaps, the least liable to be mistaken of any of the forms of the disease. It is a fair loss of substance, part being dug out, as it were, from the body of the tonsil, with a determined edge, and is commonly very foul, having thick white matter adhering to it like a slough, which cannot be washed away." The soft palate is liable to be attacked with the same character of ulceration, and a great part of it is often thus permanently destroyed. The ulceration may extend to the pharynx, and, in the latter case, a singular result ensues upon the cicatrization of the ulcers: the remains of the soft palate often coalesce with the cicatrizing pharynx, so as to be permanently stretched across the posterior aperture of the nostrils. Nasal breathing is not, however, put an end to, one or two oval holes being left in the velum for the purpose. The nasal character of the voice, which attends ulceration of the soft palate, is thus rendered permanent. Excavated ulcers often originate upon the back of the pharynx. Mr. Carmichael notices the remarkable whitish appearance of their surface: this has appeared to me to result from their being covered with the mucus of the upper part of the pharynx.

IV. *Sloughing ulcer.*—In sloughing venereal ulcers the mucous membrane is of a dark red, and much swollen; the uvula large, long, and relaxed; the ulcer covered with ashen slough, the margin of the ulcer here and there livid. In the spread of the sloughing process upon the side of the pharynx, the lingual artery is liable to be opened, and several cases have occurred in which fatal hæmorrhage was the consequence. I have met with one case of this description which ended favourably. A patient was admitted, in the evening, into Middlesex Hospital, faint from hæmorrhage: the following morning early arterial hæmorrhage returned with great violence: this stopped on the patient becoming faint, and upon the house-surgeon, Mr. Laidlaw, making pressure upon the carotids. Upon examining the fauces, I found sloughing ulcers of both tonsils, both being partially covered with adhering clotted blood, and it was not without difficulty that I made out

from which side the hæmorrhage came. I then applied a ligature to the common carotid on that side; and the patient recovered. Between three and four years afterwards, this patient died in the Middlesex Hospital of consumption, which gave me the opportunity of ascertaining that the hæmorrhage had proceeded from the lingual artery. It is necessary, in such cases, to tie the carotid, as it is impossible to be certain from which of its branches the bleeding proceeds.

The four varieties of sore-throat which have been described are truly siphilitic, for they occur in conjunction with other siphilitic symptoms, and are cured by the same remedies. Nevertheless they are each occasionally met with dissociated from siphilis, as accidental results of disordered health. One of the best-marked instances that I have met with of sore-throat resembling siphilitic ulceration occurred in the person of a medical student, whom I saw in October last, with two other surgeons, and concurred with them in recognising the deep, abrupt, and extensive excavation of the inflamed and swollen tonsil, and its foul yellow surface, as presenting every feature of a venereal sore-throat; but I thought it was not of that nature: the patient, though not in full health, and having a few pimples on his forehead, denied ever having had chancre or excoriation; and although the ulcer had been in existence a fortnight, the other tonsil was not even inflamed. He was ordered to take two or three doses of aperient medicine without calomel, and to live exactly as usual. In three or four days the appearance of the tonsil had improved, the ulcer soon entirely healed, and he remains in perfect health.

Of the four varieties specified it is difficult to say which is most characteristically siphilitic. The excavated ulcer is commonly represented as the true venereal sore-throat; but the excoriated form is more frequent in the proportion of twenty cases to one of secondary siphilis. Another reason for considering the excoriated form as the most genuine is, that it goes with every variety of siphilitic cutaneous disease; whereas the ulcerative forms are seldom met with (combined) except with the forms of cutaneous disease that lead to cutaneous ulceration.

Excoriation of the throat and fauces, although it may be troublesome, is never a serious malady; and siphilitic ulceration of the throat, it has been mentioned, is seldom virulent in the cases in which much skin disease is inveloped. When in association, therefore, with the forms of lues already described, sore-throat is

in general a subordinate matter. Our attention may therefore be undividedly turned to affections of the throat existing substantively, themselves forming the whole or the principal outbreak of the disease. The local means to be employed in this class of cases may equally be resorted to when sore-throat makes head in conjunction with other symptoms. Excoriation of the throat and fauces occasionally is the first, as it is liable to be the only symptom manifested. After existing some weeks or months alone, it is often followed by psoriasis. Sometimes, after psoriasis has disappeared, excoriation of the throat that began with it lingers for months. This affection will generally temporarily disappear under the use of the compound decoction of sarsaparilla, alone, or combined with liquor potassæ, or with the iodide of potassium in small doses. Such a course may be continued for a fortnight, and ought to be prescribed, if the throat is sore enough to produce uneasiness, or if the patient appears suffering in health. A fortnight's alterative course of mercury—an eighth of a grain of the oxymuriate, for instance, in a pill, three times a day,—is extremely efficient in repelling this form of the disease. No local treatment is requisite; but the excoriated patches are always better for a day or two, after being touched with a solution of nitrate of silver.

Superficial ulceration of the throat is brief in duration, and a less frequent malady than the preceding. It is likewise more painful; so that in addition to the antiphlogistic medicines given, it is desirable to use some active local application. One of the most beneficial is a solution of the oxymuriate of mercury in decoction of bark, a grain to the ounce.

The common seat of superficial ulceration of the fauces is the surface of the soft palate. The excavated and sloughing ulcers more commonly occupy the tonsils and the pharynx; but they may likewise involve, as it has been mentioned, the soft palate. Sometimes ulceration takes place upon the posterior margin of one of the posterior arches of the palate, and can only be brought into view by drawing the edge of the arch forwards and outwards. When the soft palate is the seat of ulceration, its function is impaired, and the voice is rendered nasal; and in the act of swallowing, some of the food is liable to pass into the posterior nares. The excavated and the sloughing ulcer are remarkably influenced by mercury locally applied. The most efficient practice is to fumigate with cinnabar or the nitric oxide. Under these agents the ulcer will often become clean in the course of three or four days.

When the excavated ulcer is in a less virulent state, and chronic rather than actively progressive, the application of the nitrate of silver, either in substance or in solution, will generally heal it. Other applications that are useful, are gargles containing the linimentum æruginis, or honey with the white precipitate of mercury mixed in it applied on a probe, or the yellow wash so applied, and the like. Sometimes, when the venereal character of the ulceration has subsided, its seat having been the soft palate, there is left a large hole through it, perhaps an inch in length, with a granulating edge. If this is left to itself, the edge will cicatrize, and the hole be permanent, interfering with speech and deglutition. But if its edges are kept sore by repeated applications of lunar caustic, they will draw together, and the hole will certainly close. To some cases of fissure left by siphilitic ulceration, staphyloraphe is applicable.

Excavated ulcer of the throat yields readily either to the iodide of potassium or to mercury. The former remedy, on the grounds already explained, is generally to be preferred. Sloughing ulcer of the tonsils and pharynx is liable to be attended with considerable depression, a frequent irritable pulse, and profuse perspirations. In this case, as general means, stimulants, with light nutriment, wine with arrow-root, brandy with yolk of egg, are proper; and as an antisiphilitic remedy, bark with nitric acid, if it can be swallowed.

It is hardly worth while to illustrate the preceding rules by cases, but I will add three;—the first, to exemplify what is commonly considered the genuine siphilitic sore-throat doing well with the iodide of potassium; the second, to exemplify the efficacy of mercury in subduing a last outbreak of the disease, or in extinguishing it; the third, extracted from a publication, some years ago, of a most judicious surgeon well acquainted with this malady, in which, the complaint being virulent, the efficacy of mercury in repelling, and its total inadequacy to eradicate the disease, are equally and strikingly shown.

John Moore, aged 28, some months ago had a discharge and two sores on the penis, for which he took two pills for two months daily, and the sores healed; his mouth was sore during great part of that time; the sores have occasionally broke out afresh, and are now again open; they consist now of depressed cicatrices, of which the rounded irregular edges are red and raw, the bottom whitish, both discharging. At the end of November, having

been exposed to wet and cold, his throat became sore, he applied at the Middlesex Hospital for advice, Dec. 10, 1839. The only secondary symptom present is excavated ulcer of both tonsils, which are inflamed and considerably swollen: the ulcers appear to have eaten away half the substance of each tonsil; the surface of each is foul and yellow. Ten grains of iodide of potassium, in decoction of sarsaparilla, ordered three times a day. On the 17th, his throat, brief as the time was, had already greatly improved: the circumference of each ulcer had begun to granulate, the central part having still a yellow layer of secretion, like a slough, adhering to it. The ulcers speedily healed. But in four or five weeks afterwards, he returned with cutaneous psoriasis.

A young gentleman returned from India with a constitution broken by siphilis and mercury. The pharynx was in a state of ulceration. On the right side of the forehead, and on the left cheek-bone, there was swelling and tenderness of the periosteum. One testis had suppurated, but had healed: the other was enlarged. During the first two months after his return he took successively sarsaparilla with liquor potassæ, sarsaparilla with Plummer's pill, quinine with sulphuric acid. He became more attenuated, with night-sweats and loss of appetite. The tender spot on the forehead became red and then ulcerated; the testis suppurated, and a fungus, like that of scrofulous testis, followed. At this period he commenced the use of the iodide of potassium; in a short time there was a visible improvement; he gradually recovered. For some months afterwards he appeared in perfect health, having regained his flesh and strength; but then ulceration of the throat returned in the most virulent form, affecting both the soft palate and pharynx. He then fell under other hands, and was submitted to a severe course of mercury; through which he was again cured of the ulcer in the throat. He has since had no return of the disease.

"J. N. had considerable excoriation that for the most part readily healed, but left thickening and discolouration about the frænum, soon ulcerating, and now exhibiting a raw, rough, and tawny surface, elevated on a white cartilaginous button, and secreting a thin and reddish matter. It was attended with dull pain, and gradually but slowly enlarged: mercury was given so as to affect the mouth for eighteen days, the sore having been healed and the hardness dispersed some time before the end of the course. The health was rather disturbed than improved. In a fortnight he

complained of uneasiness of the throat, and went to the sea-side. Returning, after a month, he said that the throat had continued to annoy him, though slightly. On examination, there was seen to be an excavated fissure in each tonsil, deep, and of a brownish-red surface. The surrounding inflammation was not great, nor the pain severe. He had one patch of siphilitic lepra on the thigh, a few encrusted spots on the scalp, and pains about the head of the fibula, and the pains increased at night, pulse much accelerated, skin pale, and system languid. Sarsaparilla was given, rapid improvement took place, and the ulcers healed in three weeks. In about two weeks from the omission of sarsaparilla, there appeared a crop of siphilitic psoriasis, thick about the scalp and forehead, and upper part of the thighs; some encrusted spots were visible in the eyebrows and beard, and there were some external pains of the head, and incipient disease of throat. It was now determined, in consultation, to adopt mercury for eight weeks, and to keep the mouth, during that period, tender. The symptoms directly improved, and soon got well; nor was the health disturbed, except for a few days, when the mercury was omitted and soon resumed. He again went to the sea-side, but returned in twelve days from the discontinuing of mercury with a sloughing fissure in the tonsil. He had great disturbance of his health, and considerable inflammation of the fauces. All again became tranquil, under the use of sarsaparilla for a time; but the disease of the throat relapsed, and became rapidly progressive. Its extension, after some delay, was so threatening that an active and prompt influence of mercury was deemed indispensable. The mouth was quickly affected, the mischief was as quickly checked, the sloughs were thrown off, the healing was tedious, but the patient remained free from siphilitic symptoms during ten weeks of severe inunction. Within three weeks after the omission of mercury he had a fresh relapse."

Siphilitic affections of the nostrils bear an affinity to those of the throat and fauces. It has been already mentioned that excoriation of the mucous lining of the nose is met with in conjunction with excoriations of the mouth and psoriasis of the skin, and that it is extremely common. Superficial ulceration is less frequent; and though I have seen it upon the septum of the nostrils, and have cured it by the local application of the black wash and the internal exhibition of alterative antisiphilitic medicines, I have not met with a case of this description, in which I have ascer-

tained its siphilitic origin. I presume, however, that those instances, in which there are discharge of purulent mucus from the nose and inward soreness, which seem to threaten necrosis of the spongy bones, but are not followed by exfoliation, are often of this nature. Siphilitic ulceration occasionally eats through the cartilaginous septum of the nose, which it may destroy : this is the source of that remarkable disfigurement in which the lower part of the nose falls in. The kind of disfigurement produced by loss of part of the nose through external ulcers admits of improvement by means of the rhinoplastic operation ; which, however, must be delayed till time has shown that the siphilitic taint is extinct. A man applied to me to make him a new nose, on account of an extensive smooth cicatrix left by former ulceration of the integuments of the old one, the end of which was likewise remarkably abrupt and snubbed. I assured him that his nose was not materially disfigured, but that his forehead would be very much so by the operation he contemplated, and that the nose I could make him would not be so good as the present; and I refused to comply with his wishes. On his pressing me further, I observed, in jest, that if he wished me to make him a new nose, he must cut off the old one ; " I have already done so," he replied ; and the snubbed end, I found, was the result of his having amputated, with a razor, the exteme tip of his nose, to qualify it for the surgeon's hands. I need not say that I refused his request, and endeavoured to make him sensible of its folly ; but he found another surgeon more to his mind, who cut off his old nose, and made him a new one ; luckily for whom the poor man died shortly afterwards, before he had had time to become dissatisfied with his altered physiognomy.

I have mentioned in one of the cases in this section the occurrence of inflammation and suppuration of the testis. This affection goes with the outbreak of secondary siphilis sufficiently often to require some notice to be taken of it here. Siphilitic disease of the testis does not differ in any of its features from that which originates in scrofula. It has a chronic character. There is swelling and hardness, which may be general or partial. The swelling may continue an indolent tumour, attended with little local uneasiness, and then disperse ; or it may suppurate and form an abscess, from which, when it has opened, I have seen fungus-like protrusion of the swollen tubuli take place.

I may take the same opportunity to advert to the sores which form between the toes, and at the anus, in connexion with

siphilis. The former originate, I believe, as spots of psoriasis, which from their situation are moist and raw. The latter either are the same, or they present a tubercular character; the integument round the anus being thickened and red, but with cracks in it. Sometimes the cracks and thickenings form alternate radii diverging from the anus, being the natural folds thus affected. Sometimes a great extent of irregular ulceration is met with instead. Anodyne applications locally, and a short course of mercury, are the best remedies for these disorders.

SECTION V.

Siphilitic Iritis.

Siphilitic iritis is sometimes the only symptom manifested in constitutional lues. In this case the time of its appearance ordinarily falls between two and five months from the commencement of the primary local disorder; but it is occasionally delayed to a year or eighteen months. Thus, when the only symptom manifested, iritis is rather later in its appearance than the secondary cutaneous affections.

Siphilitic iritis, however, is more frequently met with following upon, or in immediate conjunction with, siphilitic skin disease. It is most frequently combined with lichen, next in frequency with psoriasis and lepra, rarely with cutaneous ulceration. A superficial inquiry would, indeed, lead one to the conclusion that iritis is less often connected with lichen than with psoriasis; the actual number of cases is greater in London, in which the latter combination takes place: but in London, psoriasis is a much more common secondary symptom of lues than lichen; and if this circumstance is allowed for, the most frequent conjunction will be found to be that between iritis and lichen. Another point there is which links still more closely these two affections. The outbreak of iritis is often simultaneous with the invasion of lichen, or follows close upon it; whereas, when iritis is combined with scaly cutaneous disease, it usually occurs at a remission of the latter, or some time after it has declared itself.

The following are the principal features of siphilitic iritis, well known to the English student of surgery through the treatise of Mr. Lawrence:—

The iris loses its brilliancy, and appears dull and dark, and the beautiful fibrous arrangement which characterises it in the healthy

state is either confused or entirely lost. A light-coloured iris assumes a yellowish or greenish tint; a dark-coloured iris, a reddish-brown. These changes, which are the effect of increased vascularity and infiltration with lymph, begin upon the free edge of the iris. Lymph then exudes upon the surface, either in numerous minute villous granules, producing an elevation or irregularity of the surface, of a reddish-brown or rusty colour; or in a considerable mass, or in masses of a light yellowish ochrey or brown tint, sometimes coloured with blood adhering to the iris; or, in addition, a thin greyish web or fibre of lymph stretches across the pupil, which is clouded, losing its clear black colour. Sometimes the loose lymph effused is sufficient nearly to fill the anterior chamber; sometimes the iris is pushed forward by its accumulation in the posterior chamber of the aqueous humour. Through the effusion of lymph, the edge of the iris becomes partially glued to the anterior surface of the capsule of the lens, and assumes, in consequence, an irregular figure. The points of permanent adhesion are sometimes so fine that the iris seems tied by black threads of its elongated inner membrane. Through the alteration in its tissue, its motion is less free, and it gradually becomes more and more contracted: sometimes the minute aperture left is drawn away from the centre; sometimes the pupil is entirely closed. The vascularity of the eye, seen externally, is characteristically increased. At the commencement, the anterior part of the sclerotica exhibits a pale pink redness; towards which, and from the circumference, the vessels advance in straight lines, ramifying towards the front, and are finally lost in a red zone, which immediately encircles the cornea. If one part only of the iris is inflamed, this increase of vascularity is seen on the side alone leading to it. The vessels of the conjunctiva are affected in every degree, from the enlargement of a few in an arborescent capillary net-work, to the dilatation of all, giving to the entire surface a uniform fiery redness. Sometimes there is present the white ring, commonly diagnostic of arthritic iritis, between the red zone and the edge of the cornea.

Iritis is liable to be attended with intolerance of light, increased lacrymal discharge, burning sensation, and tension of the eyeball; deep-seated pain in the orbit, extending to the head; pain over the eyebrow, temple, and cheek, as if it were seated in the bone. But these symptoms are most uncertain, and bear no proportion to the visible inflammation. The pain is chiefly at night, when it either

comes on, or, if constant, is much aggravated. The constitutional symptoms are not less variable.

Iritis of the most acute kind is attended with severe febrile symptoms; with headache, restlessness, and want of sleep; with full and strong pulse; white tongue, thirst, loss of appetite, and costiveness. Often, however, even in cases that would be termed acute, such symptoms exist only in a slight degree, or are entirely wanting.

The rate of progress, again, of the disease, and the impairment of the organ produced by it, are equally various. In the course of four or five days the pupil may be filled with lymph, and vision extinguished; or at the end of several weeks there may be no permanent change of structure or injury of sight. When the disease goes on unchecked, it may extend itself to the external and internal tunics of the eye; the cornea becoming dull and nebulous, the chorion and the retina involved with increase of pain and fever, and ultimately irrecoverable loss of vision from change of structure in the retina.

In the treatment of siphilitic iritis it is required,

First, that the edge of the pupil be drawn out of the way of contracting adhesions to the anterior surface of the capsule of the lens. This is effected by rubbing the moistened extract of belladonna upon the brow.

Secondly, that the local inflammation be subdued, which will allow of the lymph effused becoming absorbed, and render the aqueous humour again transparent. This is most certainly effected by exciting strong mercurial action. If the complaint is taken at the commencement, and mercury given to the extent of producing ptyalism, its further exhibition is generally unnecessary. If the complaint, when it falls under treatment, has already existed some time, mercury should be given in such a manner as speedily to touch the gums, and the action may be required to be maintained at this point from a month to six or eight weeks; — it is to be maintained till the increased vascularity has disappeared, the red zone around the cornea gone, and the natural colour of the iris returned, till the lymph has been absorbed, and vision is restored.

Thirdly, but first in practice, that the inflammatory state of the habit and of the general circulation be subdued; which, if it continue, will keep up the local action against the utmost agency of mercury alone. For this purpose, according to the state of the

pulse, free venesection, or cupping on the temples, or leeches only, are to be prescribed; remedies, which have generally to be repeated in the course of the treatment, as the pulse fills again and reacquires strength. In conjunction with the first general or local abstraction of blood, an active aperient, and salines with tartrate of antimony, are to be given. The patient is, with the same general view, to be kept perfectly still, upon low diet, and in a darkened room.

As I have nothing to add to what is known through the observations of others on the subject of siphilitic iritis, I will not further extend this brief sketch of its simplest features, and of the leading principles in its treatment.

SECTION VI.

Siphilitic Affections of the Bones and Joints.

Siphilitic affections of the bones no longer present the formidable characters, which I can remember having witnessed, as a student, in London hospitals; although then becoming less frequent, and already attributed by surgeons to the excessive use of mercury in habits tainted with siphilis. Now that mercury is rarely given to the extent of producing salivation, and is not indiscriminately prescribed upon every recurrence of lues, the bones seldom become seriously or generally diseased.

The bones are the parts last attacked in lues. The disorder is perhaps most liable to manifest itself in the cranial, facial, and in some of the cylindrical bones, after scaly cutaneous disease has existed for several months continuously or remittently. But sometimes, when the scaly eruption of the skin has been trivial in amount, affections of bone supervene long afterwards, no other siphilitic symptom then being present.

Siphilitic affections of bone comprehend periostitis, inflammatory enlargement of bone, and caries. The term node has been applied indifferently to the first and second, and to the third properly before the integuments have ulcerated: strictly, it should be restricted to the second.

Siphilitic periostitis generally occupies an oval surface, from an inch to four inches in its long diameter. Its common seat is the sub-cutaneous aspect of the tibia, next the posterior edge of the ulna: of the cranial bones, it most frequently attacks the os frontis. The fibula, the lower end of the humerus, the clavicles,

are occasionally the seat of this affection. The superficial bones are certainly the most frequently attacked; but any bone of the skeleton is liable to be attacked by siphilitic periostitis. The swelling upon a bone is known to be periosteal by the short time it has existed, and by a certain degree of softness or compressibility in the swelling. It is tender on pressure, aches, and, with the other siphilitic affections of the bones, aches most at night. When the disease persists, either enlargement of the bone, or superficial caries, is likely to follow.

Inflammatory enlargement of bone, of siphilitic origin, is generally partial, and occupies not the whole circumference of a cylindrical bone, and but three or four inches of its length. When it attacks the cranium, it is generally equally limited in extent. Sometimes, however, great part or the whole of the cranium is thus affected, and I have known the whole of both tibiæ so enlarged.

Siphilitic caries is now almost exclusively confined to the cranial, turbinated, and palate bones. But when mercury was immoderately given, siphilitic periostitis of the tibia and other cylindrical bones often went on to caries. I had a skeleton in my possession, every bone of which was affected with superficial caries, and in several the disease had gone deeper.

Siphilitic caries is slow in its progress; the initiatory painful and tender swelling upon the bone exists for many months before suppuration of the cellular tissue supervenes, and the skin inflames: the latter, finally ulcerating, exposes diseased bone. Antecedently to such abscesses opening, the pain sometimes becomes very severe, through tension of the periosteum; it may be relieved by a free incision down to the bone; upon which a glairy honey-like matter is found in the cancelli of the carious part. From a carious tibia, small exfoliations are liable to take place; from the cranium, either numerous small pieces or one large one. In the bones of the extremities siphilitic caries is sometimes superficial, sometimes it extends into the medullary cavity. In the cranium it always involves the diploe, and often the inner table. If a large portion of bone is thrown off, hernia cerebri generally follows, and is generally fatal. A portion of necrosed cranial bone should be removed as soon as it has become disconnected from the living bone. I have known the adhesion of a portion of dead parietal bone to the integuments keep it firmly fixed and not moveable by a probe after it had become

detached from the dura mater and neighbouring bone. In one instance that I remember, the patient died of abscess in the lungs, excited by a portion of the basilar process of the occipital bone that had exfoliated and dropped down the trachea.

For each of these affections any of the anti-siphilitic remedies except mercury may be recommended; but certainly the iodide of potassium is here again the most efficient. Nevertheless, when mercury has not been recently given, and the constitution is sound, mercury may often be used with benefit either in periostitis, or in inflammatory enlargement of bone. To caries it is less applicable under any circumstances. When the pain and tenderness of siphilitic enlargement of bone are entirely gone, the swelling may take several months to disappear: no further treatment is requisite, or ever materially beneficial.

I have already given cases that may serve to exemplify siphilitic periostitis of the tibia, and necrosis of the bones of the nose: the following exemplifies caries of the os frontis, and inflammatory enlargement of the tibia.

A. B., aged 39, was admitted into the Middlesex Hospital Sept. 17, 1839. Twelve years ago, a month before her confinement, she had discharge and swelling in the groin. The child was still-born. A month after her confinement she went through a course of mercury. In a year afterwards she had another child, which a few weeks after birth had an eruption on the skin, and pined; it died when twenty-seven weeks old. After this she had local disease again, and was treated for it. Without any positive complaint she continued after this in indifferent bodily health; when about four years ago ulcers formed on her shoulders and back, for which she took mercury, and her mouth was made sore. The ulcers went away in about eight months. Soon afterwards she was taken with headaches, and soreness and tumefaction of the left temple and of the right side of the forehead: the former went away gradually, the latter advanced. She has taken no medicine since, but has suffered greatly. During the last year she has had pains in the limbs, and pains in the head; they were worse at night, with perspirations, and great debility. She has a node upon the left tibia; and there is an extensive ulcerated opening of the integuments over the right and upper part of the os frontis, which is partially necrosed: this opening has existed many months. Upon her admission, the iodide of potassium was ordered in small doses with sarsaparilla, but it disordered her

stomach and bowels; opium was then combined with it, and it ceased to disagree. Her amendment was very rapid: I removed a considerable portion of bone, which had become loose; the wound gradually closed; the node upon the tibia became painless. The iodide was not continued longer than a month: in two months she left the hospital with the sore on the head closed, and her health and strength restored.

In siphilis the joints are not affected with any regularity or constancy. The premonitory rheumatic pains sometimes, indeed, fix upon a joint instead of attacking the muscles; and the joint in that case is sometimes slightly swollen. The articular affection seems then to be seated in the fibrous tissues, and is of the same order with the periosteal tenderness that sometimes coexists with it. In the articular affections which occur later in the disease, the synovial membrane is affected. I have mentioned that in the lichenous variety the knees and ankles are liable to swell. In a patient, a navy surgeon, who was some time under my care for secondary siphilis, and in whom the cutaneous disorder was psoriasis, one knee was swollen with fluid, and a moveable but adherent body softer than cartilage could be felt, which gave him all the inconvenience of a loose cartilage, and which he supposed to have been siphilitic in its origin. In another case, effusion into both knees in a woman coexisted with siphilitic ulceration of the throat and septum nasi. Fomentation with hot water is all the local treatment that I have found adviseable in siphilitic synovitis; it soothes the pain, which is never very considerable, but is enough to be very troublesome, being increased on giving exercise to the joint. One patient now under my care with siphilitic disease of the nose, had subacute inflammation of one knee-joint, which, after being troublesome for a year, went away upon her recovery from Asiatic cholera.

SECTION VII.

Siphilitic Taint communicated to the Offspring.

The influence upon the offspring of a siphilitic taint in either parent is a most important subject of consideration. Most is known of the effects produced by lues when existing in the mother's habit. To describe it in brief I cannot do better than avail myself of the following remarks by Mr. Babington:—

"When a mother," observes Mr. Babington, "suffers during

the period of pregnancy from a constitutional venereal infection, she seems particularly disposed to miscarry. The abortion seems to be caused by the death of the infant, which is very generally born dead. If, however, miscarriage does not take place, it is most usual that the infant at birth shows no sign of disease. But at a variable period, generally from three to five weeks after birth, it becomes slightly indisposed. Then eruptions appear about the thighs and the gums, between the nates or on the pudenda. They wear the aspect of discoloured patches, generally affecting a circular form, with a shining surface, and some slight desquamation, but without the least tubercular thickening. As the disease proceeds, these patches enlarge, and eventually occupy almost the whole body; and in the folds they sometimes slightly excoriate, and even, near the anus, at the umbilicus, or in the female pudenda, form small and condylomatous excrescences. These ulcers, in many cases, take place in the interior of the mouth, and in the throat; the nostrils are partially obstructed by an increase of their secretion, and the voice becomes weak and hoarse. With all this there is much general indisposition."

The following case may serve to instance the foregoing statement:—

A. B. shortly after her marriage, which took place two years and a quarter since, had a discharge and sores from infection by her husband; she went into the London Hospital, where she took mercury, which made her gums sore. Shortly after returning home she became pregnant: the infant was still-born at the seventh month; on her expressing a wish to see it, she was given to understand that it was in some way disfigured, and that she had better not. She became pregnant again, and a male infant was born at the full time towards the end of August 1839. When it was five weeks old, however, she observed some spots upon its bottom, which looked as if they would break and discharge water, but they did not: instead of this, they spread, and became as large as a sixpence or a shilling, having the character of lepra; they were circular, the central part flat and less red, the circumference raised, and of a deeper red; there was discharge from the surface of these, which lay on the opposite surfaces of the nates; similar spots came out on the chin, on the anus, and legs, and body. The infant became an out-patient of the Middlesex Hospital the middle of October: the eruption on the nates had then the character above described, and the eruptions were coming

out on other parts with the appearance of small glistening flat tubercles. Upon using mercurial ointment, ten grains of which were applied to the axilla daily, the spots gradually sank and faded, and new ones ceased to appear. But they returned, when mercury was again used, and they seem to have permanently disappeared.

I have another infant under my care with a parallel history, in which the eruption was papular: and in the female venereal ward is an infant under the care of Mr. Tuson, that was born covered with psoriasis, and that now has encrusted ulcers on its brow and cheek: these are improving under the use of mercury.

The following case, which I borrow from Mr. Bacot, exemplifies the influence of the other parent:

"A young gentleman, just before he married, had been attended for venereal complaints. Thinking himself safe, he married a beautiful woman, who was delivered of a fine healthy boy at the end of ten months. During her second pregnancy, the husband declined visibly in his health; and within five months of the second delivery, he had venereal ophthalmia, and a suspicious fungous excrescence about the anus. At the time that the lady was confined, in addition to the above symptoms, the husband had an ulcer at the back of the soft palate, extending towards the larynx. He then submitted to a course of mercury, and got finally well. During the time that the gentleman was under treatment, the infant's condition excited attention: it was squalid and full of eruptions, scattered from head to foot, and appeared to swallow with difficulty. It could not suck, and was fed upon goat's-milk. On the mother not the smallest mark of venereal infection could be found. The child was cured by rubbing ten grains of the strongest mercurial ointment into the soles of the feet, and continuing this treatment till the symptoms had all yielded."

SECTION VIII.

Circumstances under which Secondary Siphilis is contagious.

I HAVE stated that the matter of the sores of secondary siphilis, as the experiments of Hunter and Ricord have shown, will not by inoculation produce chancre. But it is not the less certain that there are circumstances through which the secretions of secondary sores may become the means of conveying siphilis. An

infant that has the disease constitutionally from its mother, if it have sores in the mouth, may infect its nurse's breast, and the nurse will hence have constitutional lues; and the ulcers of the nipple will be capable of infecting another infant that she may nurse. Mr. Babington observes, "If such a child has sores in the interior of the mouth, and in this state suck the breast of a healthy woman, it is very common that the nipple should become ulcerated; and the ulcer will not resemble the fissures which are so common on the nipples of women who give suck, and which usually occasion no loss of substance, but will be a corroding ulcer, and will destroy the whole or the greater part of the nipple before it is healed. It also produces in general an enlarged gland in the axilla, which, however, rarely passes into suppuration. At an interval of some weeks, sore-throat, eruptions, or nodes, arise, which are in no respect distinguishable from the common forms of lues venerea. If a woman who has been thus infected by a child which she has suckled, suckles also another child which is healthy, no infection will be communicated, provided the sound child is kept carefully to the opposite breast, and is never allowed to take into its mouth the nipple to which the diseased child is applied. But if this precaution is not taken, and the children are applied indiscriminately to either breast, the sound child will contract sores in the interior of its lips; and these will be followed by scaly eruptions on the skin, exactly resembling those which are seen in an infant which has received the infection from its mother."

It is difficult, perhaps, to reconcile these facts with the results of the experimental inoculation of the matter of secondary sores. But two circumstances deserve to be adverted to in connexion with the seeming contradiction, which possibly will find a common solution with it:—

It has happened that men who have had siphilis, and appear to have been cured, shortly after marriage have infected their wives; or local disease and secondary symptoms have made their appearance in the wife, when her character rendered it impossible that she could have been otherwise infected, and when, on the other hand, the assertion of the husband, and all probability, have made it unlikely that he had contracted fresh disease. Now, as I have mentioned, psoriasis occasionally breaks out on the penis as an isolated secondary symptom, and the spot has then a moist secreting surface, if situated on the glans or inner prepuce. It appears to me

not impossible that from this source may have been derived the material of infection in these puzzling instances.

The next instance I hardly venture to add. No one believes cancer or medullary sarcoma to be contagious. I am fully persuaded that the matter of cancer, introduced into the skin upon a lancet, would not communicate cancer, as I know from my own observations, as well as from the authority of Hunter and Ricord, that the matter of secondary siphilitic sores, so introduced, will not communicate siphilis. But I have recently witnessed the following remarkable cases :—A person not passed the middle of life four years ago observed swelling and soreness on one side of the glans and prepuce; an extensive, soft, irregular-shaped ulcer gradually established itself there; it slowly spread, and gradually swellings formed in each groin, which attained a great size, and ulcerated half a year ago. They are now two enormous wounds, deep and sloughing, with raised, thick, soft, everted edges, and having the peculiar fetor of cancer. Together with the penis, they are the seat of a form of the disease in describing which, as it occurs in the female breast, I have used the terms soft or fungoïd cancer. These great sores are free from pain. Three years ago the wife became aware of the existence of a sore and discharge of the vagina: a year and a half ago she miscarried. The sore in the vagina has since progressively enlarged, without pain. It is now a very large ulcer, occupying three-fifths of the circumference of the anterior part of the vagina, the edges irregularly eaten away, the surrounding texture tumid, soft, vascular; it has exactly the same character with the ulcer on the genitals of the husband. The disease is unquestionably cancer, and the same form of cancer in both; and it is difficult to refrain from conjecturing that it has been communicated by the party first attacked to the other, as it has been shown that secondary siphilis may be, though not communicable by inoculation. Dr. Merriman, to whom I described these cases, mentioned to me that he attended a patient who died of cancer of the womb; and that her husband, who lived with her, had disease of the penis, for which he went into the Lock, where the penis was amputated. [Unless where the contrary is specified, the narratives of recent cases have not been carried on beyond the middle of December, 1839.]

CONCLUSION.

The extreme intricacy and complexity of the subject will form my excuse for recapitulating the views, both pathological and practical, which I have endeavoured to establish in the preceding pages.

I. The first point of inquiry relates to the means of discriminating the primary local disorders that are liable to be followed by constitutional lues. I have not thought it necessary among these disorders to enumerate gonorrhœa. Either gonorrhœa never originates lues, or originates it in so few instances, that it would be extravagant to superadd to the treatment of that complaint a preventive course of mercury. The local affections which are certainly liable, but in very different degrees, to be followed by lues, may be divided into three kinds: first, those which are again so rarely followed by lues as to render a preventive course of mercury superfluous; secondly, those in which, though not unfrequently followed by lues, mercury is generally prejudicial; thirdly, those, which are in a large proportion followed by lues, to the speedy cure of which, and to the prevention of the lues consequent upon them, mercury has been ascertained to conduce. The first kind includes excoriations, herpes, preputial ulcers, warts; the second, ulcerative and sloughing phagedæna; the third, chancre. The diagnosis of chancre is to be obtained in common cases by the direct knowledge of what are the appearances of other sores in their simple state, and what the natural appearances of chancre, and to what extent the features of both may be confused by inflammatory accidents. In ambiguous cases the history must be taken into account. M. Ricord's test by inoculation may likewise be advantageously resorted to. But, as I have stated, that test has less practical than speculative value. Taken alone it is insufficient to decide the question of treatment. A decided mercurialist certainly would not prescribe mercury in many cases of primary sores, inoculation from which will produce an ulcer resembling chancre.*

* I have used M. Ricord's test of inoculation in seven cases of chancre of the inner prepuce, in three of benign phagedenic or superficial serpiginous ulcer of the glans, in one of a crop of irritable ulcers with raised edges on the outer prepuce (to which mercury did harm), and in one of unindurated chancre with

II. The treatment of chancre has to be considered alternatively, in connexion or not with a preventive course of mercury.

The rules for the treatment of chancre without mercury are not positive, but either of two practices which I have explained may be followed. The rules for conducting a mercurial course, and for the management of the accidents liable to attend it, and of the accidents of primary siphilis itself, are unattended with ambiguity. The great question for consideration is, the propriety of combining a preventive mercurial course with, and making it part of, the treatment of chancre.

The arguments in support of the non-mercurial practice and against the use of mercury are—that a mercurial course is a serious inconvenience to any one, and that to many constitutions it is most injurious;—that every primary sore may be healed without mercury;—that the most serious form of lues, ulcerative cutaneous disease, namely, is probably not capable of prevention by a mercurial course;—that the other secondary symptoms are, in the majority of cases of non-mercurial treatment, extremely mild;—that they supervene earlier, and are generally sooner over, where a course of mercury has not been used for the primary complaint;—that the secondary symptoms which occur where mercury has not been used, are in no cases more severe than in many in which the mercurial treatment has been followed;—that mercury does not prevent, but only lessens the frequency of, constitutional lues, its direct action apparently being to put off the invasion of lues so long, that in a certain proportion of cases the impression of the taint wears out before it has given rise to secondary symptoms. These considerations are so favourable to the non-mercurial practice, as to render its adoption advisable in all cases in which, from inherited or accidental peculiarity of habit, mercury is likely to prove injurious; in cases in which the patient has unluckily, through the recurrence of primary sores, undergone several mercurial courses in a short space of time, and is weakened in health; in cases in which the primary sore has already existed a long time; in cases in which there is a reasonable doubt whether the local affection is siphilitic.

The considerations which, on the other hand, favour the

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the matter from a suppurating gland—in each of which a pustule followed, which became an ulcer. In two cases of chancre of the labium, one well characterized, the other already modified by mercury; and in two of circular sores of the corona glandis and inner prepuce, which I thought were not chancres—in these four, inoculation produced no pustule or ulcer.

mercurial practice, are, that to persons of a good constitution, a mercurial course, properly managed, very rarely proves detrimental;—that on a comparison of all the evidence, there is reason to believe that the proportion of cases in which secondary symptoms appear after non-mercurial treatment is greater than where mercury has been used;—that it is highly probable that among the attacks of secondary siphilis prevented by mercury, are several of the severest kinds (setting aside the ulcerative);—that if the general tendency of mercury, where it stops short of preventing secondary symptoms, is to protract the whole period of the disease, yet that this is not constant, and that without mercury equally lasting attacks are met with;—that on Mr. Rose's own estimate, the proportion of cases in which secondary symptoms occurred under the non-mercurial practice is much higher than commonly imagined: Mr. Rose observes, that out of one hundred and twenty cases of venereal sores which he had himself treated without mercury, one out of every three was followed by some form or other of constitutional affection; "but this, however," he adds, "was in most instances mild, and sometimes so slight, that it would have escaped notice, had it not been carefully sought after:" and a similarly close scrutiny might detect many overlooked cases of lues after mercurial courses.—Finally, that in cases of indurated chancre, the period of recovery is shortened by the use of mercury; that the sore is so healed thoroughly and soundly, and that all chance of the local complaint again breaking out is thereby put an end to, and the risk of afterwards unsuspectingly so conveying infection avoided. Weighing these facts against those advanced on the other side, I think it fairly appears, that in a person of good constitution, the treatment of chancre, undertaken soon after its commencement, should include a full mercurial course.

There exists, indeed, a middle plan; namely, to employ mercury to the extent merely that may be necessary for the cure of the primary sore. By this means several of the advantages of mercurial practice are certainly obtained, and some of its evils avoided. In general, the quantity and duration of mercurial action required to heal primary sores does not amount to that which is supposed to be essential to the prevention of constitutional lues. This plan may be viewed as the most advisable practice in cases of indurated chancre, in which the disease has already gone on for several weeks without any use of mercury.

III. The symptoms of secondary siphilis are pains, eruptions and ulcers on the skin, falling off of the hair, soreness and ulceration of the fauces and nose, iritis, swellings of the bones and joints. Either of these may form the only symptom manifested. But in most cases several are grouped together simultaneously or by succession; and the phenomena of the disease are conveniently displayed by supposing six modes of secondary siphilis, taking as the type of each the feature most developed in it. These six comprise three, in which the skin is the part prominently affected; one in which the throat, a fifth in which the iris, a sixth in which the bones, are the parts principally concerned. The rules for the treatment of each variety have important shades of difference; but one principle, with exceptions which I have specified, reigns throughout. The essential principle in the treatment of constitutional lues is to aim at no more than subduing the present attack, keeping the patient during the remissions of the disease in perfect but not rude health by the strictest regimen and course of living, in the expectation that the disease will thus eventually wear itself out. In the choice of remedies to subdue each attack, exclusive of the iritic, mercury is to be shunned, or to be resorted to most seldom. Mercury, with occasional rare exceptions, acts only repellently in secondary siphilis; it does not then extinguish the disease; it only then, like the other antisiphilitic remedies, represses the present outbreak. The fatal character which the disease often wore, so recently as thirty years back, arose from men's constitutions being destroyed by repeated courses of mercury, given in the vain expectation of cutting short the disease when in its constitutional form, and in the still more mischievous belief that nothing but mercury would cure even the present attack; and that the worse the symptoms grew under its administration, the greater became the necessity of continuing it.

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