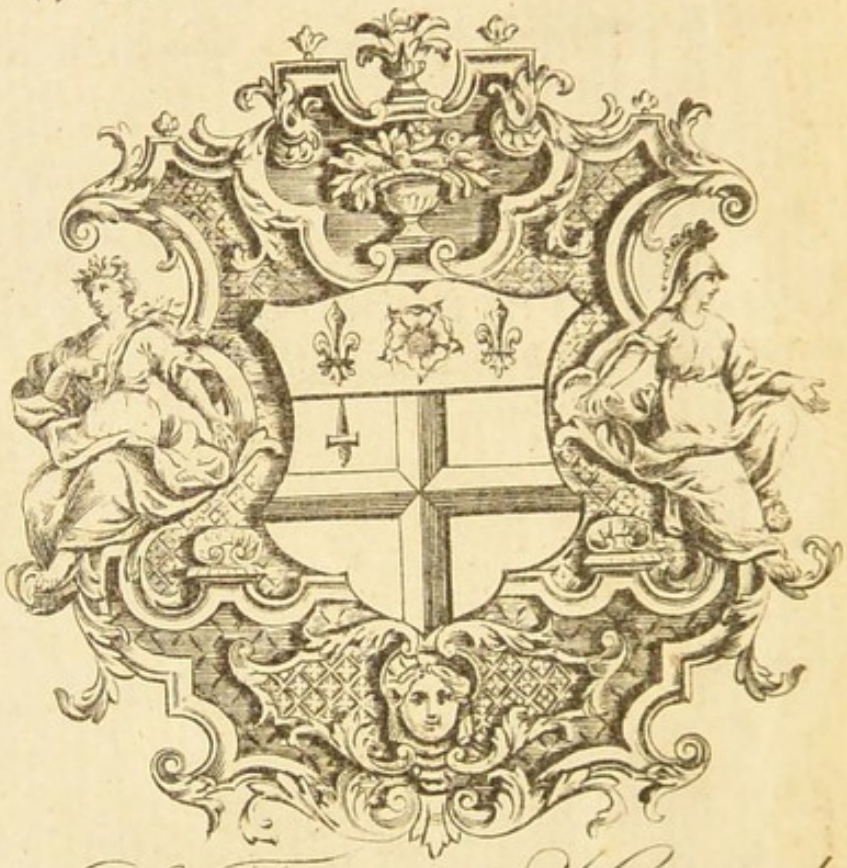
Observations on venereal diseases : derived from civil and military practice / by Hamilton Labatt.



OBSERVATIONS

ON

VENEREAL DISEASES:

DERIVED FROM

Civil and Military Practice.

BY

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TO

ANDREW SMITH, M.D.

DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT,

AND TO

CHARLES MACLEAN, M.D.

LATE INSPECTOR-GENERAL OF MILITARY HOSPITALS IN IRELAND,

The following pages are respectfully inscribed

BY

THE AUTHOR.

PREFACE.

INQUIRIES instituted by me during my late appointment under the Army Medical Department suggested the publication of the following pages, in which I have given the results of my experience in civil and military practice.

In the course of my observations I have alluded to information acquired by me in the London hospitals, during a winter season. For this I am principally indebted to my respected friend Mr. Lawrence, and the late lamented Mr. Guthrie; and it is a source of peculiar gratification to me to be enabled to set forth in this volume fresh and signal proofs of kindness from the former of these distinguished surgeons.

With respect to the advantages derived by

me from the Army Medical Department, I must express my gratitude to him by whose selection I obtained them. I have, moreover, to acknowledge the readiness evinced by him on all occasions, during my connexion with the service, to aid me by his advice in the discharge of duties which, notwithstanding their responsibility, became comparatively light, because I felt that in any difficulty I could apply to one who was always accessible, and who never permitted official etiquette to interfere when the public interests required him. In thus referring to the late Inspector-General of Hospitals in Ireland, I have also to thank my esteemed friend Dr. Carter, Deputy Inspector-General, for his assistance on many occasions.

Dublin, 1, Upper Fitzwilliam-street,
March, 1858.

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CHAPTER I.

THE origin of Venereal Diseases has been so amply and repeatedly discussed by our most eminent writers; and the various authorities, even of remotest antiquity, Holy Writ not excepted, have been brought forward with such industry and research, that but little, if any, further evidence has been omitted to elucidate this interesting question. Physicians and historians, poets and philosophers, have all been consulted; yet, unfortunately, we are still involved in doubts and speculations which are far from being dispelled or removed.* True it is, if we take up certain favorite views with the deliberate

* In the introductory pages of Bacot's excellent treatise on Syphilis we shall find a highly interesting discussion, in the course of which these authorities are fully enumerated. We

determination of proving them, we shall in this as in many other enquiries find much to support us; but what I affirm in the present instance is, that it is impossible, on the facts we are in possession of, for any impartial investigator to arrive at a satisfactory and accurate conclusion.

If we carefully and dispassionately examine the various proofs that have been adduced by those who advocate the antiquity of Venereal diseases, as well as of others who maintain that their origin was of modern date, we shall at once be furnished with abundant matter to enable us to appreciate the great obstacles to be encountered in this discussion. The description of symptoms and appearances as put forward by the former class is so meagre and imperfect in many instances, and in some cases of so suspicious a character, as to render it difficult to grant or deny our assent to their views; whilst the arguments adopted by the latter appear still more inconclusive, as may be learned from the treatise of the late Mr. Bacot, who in his introductory memoir has collected a

may also peruse with advantage an instructive paper in the 14th volume of the Edinburgh Medical Journal, on "the Early History and Symptoms of Lues," by Dr. Robert Hamilton. Becket, Astruc, Carmichael, and many others have also engaged in the controversy.

large amount of historic and other evidence to prove, in opposition to Becket,* Carmichael,† and others, that Syphilis made its first appearance towards the close of the fifteenth century, prior to the siege of Naples. This author rejects altogether the facts of his opponents, on the grounds that "there is no allusion to subsequent disease as deducible from these local affections." Now, had I not observed in the writings of Mr. Bacot and others, instances of constitutional disease which were of a very suspicious nature, and yet put forward as non-syphilitic, I should probably have yielded to the reasoning of this respected authority, who, after searching the works of Celsus and finding therein such "excellent" descriptions of phymosis, ulcerations about the genitals, condylomata, &c. proceeds thus :—"I cannot again help remarking how impossible it would have been for this elegant and acute writer to have

* Mr. Becket's opinions are embodied in a paper presented by him to the Royal Society in 1717, and the discussion is further enlarged on by the same authority in the 31st vol. of the Philosophical Transactions. In opposition to the views of this author, a large amount of evidence has been brought forward by Astruc and others, who maintained the modern origin of Syphilis.

† Mr. Carmichael's opinions on this subject will be found in the second edition of his work on Venereal.

omitted noticing the sequelæ of the disease, had any such existed in his days." To this I would reply by asking, is it not equally surprising that our own illustrious Hunter, so acute as an observer, should have denied the occurrence of venereal inflammations of the eyes, and solely on the grounds that the symptoms presented, in cases "supposed to be venereal," did not coincide with preconceived views of his own. "The inflammation," observes this great man, "is more painful than in venereal inflammation proceeding from the constitution; and I have never seen such cases attended with ulceration, as in the mouth, throat, and tongue, which makes me doubt much of their being venereal."* The fallacy and error which pervade this reasoning it is unnecessary to point out, and when we find a Hunter misled by such mistaken prejudices, surely it is not going too far to suspect that the discriminating judgment of a Celsus may also have been warped by equally erroneous principles, and thus have failed to recognize many diseases of a syphilitic nature. For my own part, I am disposed to conclude that inasmuch as some weeks, or, as I shall hereafter show on high authority,

* Hunter's Works, by Palmer, vol. 2, page 417.

even months, may intervene between primary and secondary symptoms; their relation as cause and effect may have escaped the older authorities; and that many of the skin diseases recorded by them were really syphilitic. It is only within a very recent period that venereal iritis was known; the same has been asserted of gonorrhœal ophthalmia* ; but this is an error, as appears from a very interesting and instructive work,† (which was published in Paris in 1722, and subsequently at Amsterdam in 1736, from which I shall hereafter have occasion to quote), in which we have an excellent description of this disease ; and the author does not seem to claim any title to originality. All this but proves to us the amount of conjecture and uncertainty we have to contend with ; and therefore serves to show the want of conclusive evidence on either side.

In referring thus briefly to this interesting enquiry, it must not be supposed that I underrate its importance ; on the contrary, I have always considered such studies of the utmost value; inasmuch as, to be truly accomplished and well informed, it is essential that we should be

* Carmichael's Lectures, by Gordon, pp. 16-17.

† Nouveau Traité des Maladies des Yeux, par M. de Saint Yves, chirurgien oculiste de Saint Côme.

acquainted not only with the symptoms and treatment, but also with the history of Disease. On the present occasion, however, the limits I have laid down oblige me to pass on to the discussion of some preliminary matter more intimately connected with the object of these pages.

During the late war with Russia, I was appointed by the Inspector-General of Military Hospitals in Ireland to the medical charge of troops in Dublin Garrison, in which I was engaged nearly two years. At first, my duties were confined to the Regimental Hospital and Depôt of the 2nd Battalion, 60th Royal Rifles, the strength of which was, on the weekly average, 470. At one period it exceeded 600. Of this depôt, I had the sole charge for eight months, and previous to its removal from Dublin, I was transferred to the General Military Hospital, Phœnix Park ; a noble institution, capable of accommodating 176 sick soldiers, where a large section of the patients was committed to my charge, during a period of thirteen months. I was also attached for short intervals to the 56th Depôt, numbering 405 ; to the 3rd Dragoon Guards, the strength of which, with a contingent of the 5th Dragoon Guards,

averaged 400 ; to detachments of the City of Dublin Artillery, and the 14th Regiment ; and I had medical charge of the recruiting staff for a considerable time.

I have supplied the above statement in order that the nature and extent of the field from which I derived my observations, so far as military practice is concerned, may be distinctly understood ; and although it may appear to some that the opportunities were rather limited in duration, I offer the following remarks in the hope that they may elicit, from those whose permanent duty is in the Military Hospital, something of a more definite and practical character. The regimental medical officer holds a position for accurate observation and deduction which the civil practitioner can never attain. He is intimately acquainted with the constitution and habits of his men ; the regulations of the service afford him peculiar facilities for discovering disease on its earliest appearance ; hospital accommodation is always at hand, by which his patients can at once be placed under necessary treatment and restrictions as to rest, diet, &c.; and, finally, on being discharged to duty, they are still, for years perhaps, under his daily

surveillance ; and he is thereby enabled to produce an unbroken detail of the previous history, treatment, and permanent results of his cases. The civil practitioner is obviously in a far different position. " If we wish," observed the late Mr. Colles, alluding to this difficulty with his characteristic candour, " to watch the course of this disease in an hospital patient, we are prevented not only by the fact that he also loses confidence in the skill of his surgeon, and becomes anxious to put himself under the care of some other, but also frequently by the rules of the institution, which will not admit of a patient being retained beyond a limited period, when his case is not in a certain train to be cured."*

Such was the experience of a distinguished civil practitioner, who for a long period enjoyed an unusual amount of public confidence ; and we can at once understand from it, how the difficulty in question must have been felt by the profession generally. In military practice no such impediment exists, and although it is impossible to peruse the works of Guthrie, Hennen, Rose, Ferguson, Evans, Bacot, Roe and others, without acknowledging the great value of their labours, I am

* Practical Observations on Venereal, page 7.

persuaded there still remains for their successors a field abundant in resources for further investigations of the utmost interest and importance.

In the course of my medical charge in Dublin Garrison, 470 venereal cases were admitted into the general military hospital, and the regimental hospital of the 60th Royal Rifles. Of these, the greater proportion were admitted to my own wards. In the 60th, 106 cases occurred, including primary syphilis ; bubo, sympathetic and specific ; gonorrhæa ; and hernia humoralis. No instance of secondary syphilis occurred during the eight months I had charge of the depôt. The total amount of admissions to the general hospital was 364, viz., 340, including primary syphilis ; bubo, sympathetic and specific ; gonorrhœa ; and hernia humoralis ; and 24 cases of secondary syphilis. I did not preserve statistical memoranda of the venereal cases that came under my notice during the periods I was attached to the 56th depôt, 3rd Dragoon Guards, 14th Regiment, and City of Dublin Artillery. I am enabled to state, however, that a single case of secondary syphilis did not come under my notice whilst I was connected with them.

On perusing the above details, we cannot fail

to observe the remarkable paucity of secondary syphilitic cases recorded during so long a period. They were all admitted to the general hospital, where the most complicated cases are usually received; and if we bear in mind that the patients in that institution were contributed by various regiments comprising the garrison of Dublin, and also by the troops, amounting to some thousands, stationed at the Curragh encampment, as vacancies ceased to exist in the regimental hospitals, the evidence assumes a broader basis, and therefore becomes the more valuable, as indicative of the comparative infrequency of secondary syphilis in the army.

Moreover, with reference to the cases of secondary disease which were committed to my charge, it is of importance to notice that they were not, generally speaking, either of a complicated nor tedious character. In order to furnish the clearest evidence on this point, I have taken from the Hospital Register, which it was my duty to keep, the following abstract, in which I have entirely confined myself to the symptoms of each case, and the dates of admission and discharge from hospital :—

Abstract of secondary syphilitic cases admitted to the author's wards in the General Military Hospital, Phœnix Park, from the 14th of May, 1855, to the 26th of June, 1856, setting forth the prominent symptoms, with the dates of admission and discharge of each patient, as noted in the Hospital Register.

Colour-sergeant Pavett, aged 28, 90th regiment, admitted September 6th, 1855—extensive and diffused scaly eruption occupying trunk and extremities; spots arranged in blotches, with scaly white appearance; three months ago had a sore on the prepuce, which healed under the use of mercury; discharged 30th September.

Private Maurice Brien, aged 36$\frac{9}{12}$, 96th regiment, admitted November 28th, 1855—pains in joints and shafts of bones; more acute at night; skin presents an unhealthy, dry, scaly appearance; remnants of copper-coloured blotches on inferior extremities; cicatrix, with loss of substance on inner surface of prepuce; traces of ulceration of fauces; discharged 18th December.

Private Myles Oates,* aged 20$\frac{1}{2}$, 3rd battalion 60th Rifles; admitted January 29th, 1856—pains about the shoulders and shins; worse at night; on the 13th of February cough set in, and subsequently well-

* This man was not a patient in the regimental hospital of the 60th during the period the author had charge of the depôt. He had been in the General Hospital some time previously, labouring under bubo.

marked symptoms of phthisis were established; on the 26th of May discharged the service.

Private Michael Sullivan, aged 28, 15th regiment, admitted February 1st, 1856—pains in shoulders and shin-bones; worse at night; had primary syphilitic disease some weeks ago; discharged 25th of February.

Private William Reid, aged 26, 15th regiment; admitted February 2nd, 1856—acute pains in lower limbs and shoulders, involving both joints and shafts of bones; throat and fauces relaxed, and present an appearance approaching to excoriation; skin presents, in some parts about the trunk, spots of a suspicious character; pains more severe at night. On the 1st of March the eruption is reported as "fading"; on the 6th of the same month he was attacked with small pox, then prevalent, ushered in by general "soreness" over the body, and sickness with foul tongue; transferred to fever hospital.

Private John Mooney, aged 46, 18th regiment, admitted February 13th, 1856—tuberculated state of right upper eye-lid, with partial ulceration unaccompanied by pain; throat and fauces deeply ulcerated; scaly blotches on forehead; discharged on the 17th of March.

Private John Mead, aged 25, 58th regiment, admitted February 28th, 1856—extensive papular eruption about shoulders and back; pains in shafts of bones; not worse at night; discharged 27th March.

Private Henry Strafford, aged 32, 96th regiment, admitted March 2nd, 1856—three well-marked syphilitic ulcers on the scrotum ; over the surface of the body a papular eruption is developed ; discharged April 11th.

Private William Morley, aged 25, 2nd Dragoon Guards, admitted April 26th, 1856—severe pains along shin-bones and occasionally in shoulders; pains more severe at night; fauces present an erythematous aspect but no ulceration ; on fronts of legs cicatrices of sores which appeared five years ago ; pains of two years' duration ; discharged May 17.

If we now analyze the above abstract we shall find, that of the nine cases three were admitted with syphilitic pains characterized by nocturnal exacerbations ; but of so mitigated a type, that with one exception which was complicated with pulmonary symptoms, they were fit to resume regimental duty after an average period of twenty-three days. A fourth was admitted with pains accompanied with an anomalous eruption, which on the twenty-seventh day was reported as fading, when an attack of variola, then prevalent, supervened. Of the remaining five, two were examples of papular eruption, two of scaly, and the fifth was characterized by a tuberculated state of the upper eye-lid, evidently of a syphilitic

origin, accompanied by deeply ulcerated throat and fauces. I think, therefore, it will be granted that the cases, taken in a general point of view, were, as I have already stated, neither of a complicated or tedious character.

A tenth case occurred which I have not noticed in the abstract. It had been under treatment previous to my resuming duty after a short absence with the 56th depot, and was of that inveterate type which some years ago was often to be seen in our hospitals, but which, fortunately, we now seldom witness. The patient, Private Andrew Lorimer, aged 23 years, a farrier, 7th Dragoon Guards, was admitted into the General Hospital on the 23rd of August, 1855, labouring under inflammation and swelling of the prepuce, which had been partially destroyed by sloughing phagedena which involved the glans penis, and at a later period opened into the urethral canal. This destructive process, which at one time assumed a gangrenous character, gave rise to copious hemorrhage, which was checked by the local and constitutional means we shall hereafter point out. As the case proceeded, no effort at elimination of the poison was evinced by the appearance of bubo; the inguinal glands escaping all contami-

nation. The virus soon pervaded, with its most malignant effects, the different tissues of the frame. Phagedenic ulcers appeared on the body and face, which, in this latter situation, became incrusted with rupial scabs, whilst in the former they presented fungoid bleeding surfaces. Pains in some of the larger joints accompanied these symptoms, and at an early period tertiary symptoms set in. Pain and uneasiness in the nares were reported, premonitory of incipient disease of the bones in that region. The septum nasi was subsequently attacked and totally destroyed. Presently the hard palate became engaged, and was perforated, giving rise to the most distressing sufferings, by allowing the passage of fluids upwards from the mouth. During this stage, also, the utmost diligence was required to arrest the hemorrhage which proceeded from the nares. No appearance of ulceration presented in the pharynx or its neighbourhood. The emaciation and exhaustion resulting from the poisonous effects of the disease and the hemorrhages reported in the three stages were extreme. All the means that could be suggested were adopted to arrest the progress of this melancholy case, but in vain. Ultimately dysenteric symptoms

were superadded, and, according to the report entered by me in the Hospital Register, the unfortunate man sunk on the 1st of March, 1856, under all the symptoms of syphilitic cachexia of a most inveterate type.

As the patient, whose case the above forms a very brief abstract of, was under my charge for a considerable time, I felt a desire to ascertain the previous history, as well as the treatment adopted in the regimental hospital, where he had been before his admission to the General Hospital; and through the kindness of Dr. Maclean I obtained an abstract from the register of the former institution, from which it appears that the treatment had been strictly non-mercurial. I also find by a note from Dr. Dolmage, surgeon of the 7th Dragoon Guards, that the man had been of "most intemperate habits."

The above case illustrates the great advantages possessed by military surgeons in investigating the origin and predisposing causes of disease. In the numerous regimental and general hospitals throughout the kingdom they have, as it were, one great national institution, which affords every possible facility for any enquiry calculated to improve the science of medicine and surgery.

Every encouragement is held out by the Army Medical Department. No disposition to withold information is ever evinced, but, on the contrary, an earnest desire to supply every fact that may be available for so important a purpose.

In further support of the views I have been led to entertain, I shall next refer to an important return from the general hospital, Fort Pitt, Chatham, which Dr. Smith, who so ably and efficiently presides over the Army Medical Department, has most obligingly procured for me. The extensive operations of that institution will be best understood, when I state that on analysing the nominal list of 223 cases of primitive and consecutive syphilis, which was forwarded to me in reply to certain queries I proposed, I find by that voluminous document that the patients were contributed by fifty regiments.

During the military years of 1853-54,* that is, from the 1st of April, 1853, to the 31st of March, 1855, inclusive, it appears that 223 cases of primitive and consecutive syphilis were treated

* In selecting the years 1853-54, the author was influenced by the circumstance of the large bodies of troops that were subsequently absent from England in the Crimea, and, therefore, had he selected a later period, the test would not have been so valuable.

in the above institution ; of these, 191 were classified under syphilis primitiva, and 32 under syphilis consecutiva ; of this latter class, 22 included "eruptions, affections of the mouth, throat, nose and eyes ;" the remaining 10 were of a more chronic and complicated character, involving the third order of parts, viz., "the bones, cartilages, and fibrous tissues ;" of these, four were invalided, viz. one for "affections of bones, nodes, &c. ;" another for "nodes, loss of teeth, eruptions, &c. ;" a third for "loss of bones, of nose, nodes, &c. ;" and the fourth for "nodes and impaired constitution."

But in order to place this return in its fair and legitimate light, it is necessary to give a short explanation relative to a certain class of cases noted therein, which the civil practitioner may not be aware of. It may be asked why, comparatively speaking, so large a number as 10 out of 32 should have presented tertiary symptoms. Had such occurred in a regimental hospital, it would at once, I admit, have defeated my position, even though the statistics extended over a much longer period ; but, as it is, an explanation appears in the fact, that when cases proceed to the chronic complicated condition in

which the third order of parts are involved, they are generally transferred from the regimental to the General Hospital, either for further treatment or preparatory to invaliding. Such, I believe, are seldom detained in the former. Bearing this in mind, and considering the great extent of the hospital in question, the numerous sources from which its patients are derived, and the length of period over which our enquiries extend, I conceive that the number of 10 such cases is not only inconsiderable, but forms a most favorable feature in the return.

With the view of pursuing the enquiry still further, I obtained, through the kind permission of Dr. Maclean, a return of the amount of secondary syphilis in the regimental and depôt battalion hospitals in Ireland during the months of December, 1856, and June, 1857. These periods were selected with the object of shewing the states at different seasons of the year. From the document in question it appears that in the former month 35 hospitals were open, and the average amount of secondary syphilis in each was $1\frac{12}{35}$, the whole garrison or command being 27,379. In the latter month, viz., June, 1857, 31 hospitals were open, and the average amount of secondary

syphilis in each was $1\frac{3}{31}$: the command at this period numbered 19,019. These facts can only be appreciated by the military surgeon, who is aware of the very great prevalence of syphilis in the army.

To consider the causes of these favorable results, and to combine them with the necessary therapeutic agents as an essential part of our treatment, is the chief object of these pages. If I thought that the only question to be decided was that which has so long engaged the profession, I should most probably have remained silent. But my full conviction is, that the solution is not to be found solely in the adoption of a careful and judicious course of mercury in the primary stages of the disease; or in the rejection altogether of its use; but also in those valuable restrictions under which the treatment ought to be conducted, and which the characteristic discipline of the military hospitals so strictly enforces. In these institutions, after due attention is paid to the condition of the skin, the patient is conducted to his ward, where perfect quietude in the recumbent posture is insisted on. His diet is arranged with the utmost precision and care, so as not to counteract, but to assist the objects in view. All

stimulants are prohibited in the early stages; and when we recollect that any transgression, on the part of the patient, of these particulars becomes a punishable offence, we have the stronger assurance of their fulfilment.

It would be a serious error to suppose that these restrictions are only required in such cases as are under mercurial treatment; on the contrary, I am persuaded that many of the failures under the non-mercurial plan have resulted from a neglect of them. It is too often supposed that if a patient is not taking mercury, he may do almost as he pleases; but, to use the words of Mr. Guthrie, we shall find ourselves very much mistaken if we proceed, in this respect, as if we were treating an ordinary sore. This distinguished surgeon investigated the subject with the greatest care, and laid down special cautions regarding it.

It is worthy of remark that when these restrictions are not available, corresponding bad consequences result. My friend Dr. Maclean has informed me, that in instances where numerous small detachments were scattered through the country, and where immediate hospital accommodation was not at hand, the cases of secondary

syphilis were invariably more numerous. This he attributed not to any defect or error in the medical treatment, but to the unavoidable absence of that discipline and restrictive system as to diet, rest, &c. so essential to permanent success. The testimony of Mr. Guthrie is identical with this. Whilst referring to the occurrence of secondary syphilitic cases, he writes thus: "That they did sometimes occur is true, but it was only when the troops were moving and under irregular management that they were numerous."*

I have stated that the regulations of the service afford the regimental medical officer facilities for discovering disease in its earliest stages. Each week he institutes a careful examination of the condition of his corps, with the view of satisfying himself as to the state of the skin, eyes, &c., and detecting venereal or other diseases.

The advantages derived from this system it is impossible to overrate. It serves not only as an effectual safeguard against disease assuming a complicated character, from neglect and want of early treatment, but it also enables the medical

* Medico-Chirurgical Transactions, vol. 8, p. 569.

officer to verify from time to time the results of his practice, which in venereal cases is of obvious importance.

Although the necessity for restrictions in diet, together with rest, and the observance of uniform temperature, is generally admitted, to a certain extent, in the treatment of syphilis, it is remarkable how superficially the subject has been noticed by some authors, whilst by others it appears to have been considered as by no means essential. If we examine the views of Mr. Hunter on this point, we can scarcely suppress our surprise at the opinions laid down by that great man on so important a question. "The manner of living," he states, "under a mercurial course need not be altered from the common, because mercury has no action upon the disease which is more favoured by one way of life than another. Let me ask any one what effect eating a hearty dinner and drinking a bottle of wine can have over the action of mercury upon a venereal sore, either to make it affect any part sensibly, as falling upon the glands of the mouth, or prevent its effect upon the venereal irritation? In short, I do not see why mercury should not cure the venereal dis-

ease, under any mode whatever of regimen or diet."*

Let us next refer to the lectures delivered by Sir Astley Cooper at Guy's Hospital, and examine the views entertained on the subject by that highly distinguished surgeon. After laying down the mode of administering mercury in primary syphilis, he proceeds thus :—" The patient will ask you how he should live whilst he is undergoing this treatment ; you may tell him that he may follow his business or occupation just the same as before ; that he should not take any species of food which is likely to disorder his bowels, as it is desirable to prevent the mercury acting on the intestinal canal ; but his mode of living should be as usual. He should avoid acids, because they would purge him, and for this reason he should not take vegetables which contain much acescent matter. There is no occasion for him to change his food ; two or three glasses of wine a day would not prevent the action of mercury. Taken so as to hurry the circulation, it will oppose it ; but if taken moderately, it will do no harm."†

* Hunter on Venereal, by Joseph Adams, M.D. Second edition, p. 484.

† Page 508, Second edition.

About the same period that Sir Astley Cooper's views appeared, a series of Lectures, delivered by Mr. Lawrence at St. Bartholomew's Hospital, was in course of publication in the *Lancet*. This eminent surgeon lays down the following rules on the important subject under consideration :—

"Now there are certain rules of diet and management to be observed in order to insure the favourable action of the remedy (mercury) on the system. In the first place we find that the effect of mercury is increased by warmth, and by keeping the individual in a regulated temperature. Hence it used to be considered a rule that the patient should remain in a warm room ; that he should not go out and expose himself to the air, while he was going through a course of mercury. There is thus far a reason for this, that free exposure to the cold air lessens the effect of mercury. If you wish, then, to produce the effect of mercury readily, and to its highest extent, you should keep the patient in a regulated temperature and with warm clothing. We do not desire strictly to confine the patient to his chamber during the whole course ; that is not necessary, but it is a matter of expediency not to allow him to go out. Keep him warmly clothed, and under certain cir-

cumstances confined to his own room ; but this confinement is not to be considered as a general rule. The diet of the patient should consist of milk, bread, and other farinaceous articles."*

The above extracts are, I think, sufficient to prove that there is not a uniformity of opinion on this important question ; that while some, coinciding with Mr. Lawrence, judiciously insist on certain restrictions, there are others who lay down rules so lax and undefined as to leave the matter in a state of considerable uncertainty. The result of this has been ably commented on by the late Mr. Colles, who was fully impressed with the value and necessity of restrictive measures in securing the salutary operations of medical treatment.

"I know," remarks that distinguished surgeon, "it may be urged against this strict rule of regimen, in favor of which I have expressed myself, that the daily practice of some surgeons proves it to be unnecessary, inasmuch as they allow their patients free exercise in the open air and a liberal diet, and yet they are able to effect numerous cures. While I admit this, still I think it must be granted that surgeons daily meet with many

* Lawrence's Lectures. Lect. XXIV., *Lancet*, 1829-30.

untoward circumstances and considerable delays in this branch of their practice ; that not a few of their patients pass on from one stage of the venereal disease to another, and while some of them are cured in the advanced stages of the complaint, after repeated disappointments and protracted sufferings, many others fall victims to its sequelæ, or are carried off by some of those acute diseases to which the deranged state of their system renders them peculiarly liable."* The author then proceeds from assertions to proofs of the "mischief" resulting from the "laxity of modern practitioners," as he designates it, and states that when he "first entered on the profession, when the regimen was as strict as the medical treatment was severe, a surgeon felt humbled if he allowed a bubo to suppurate ; and if secondary symptoms appeared, he was considered to have mismanaged the case, and not unfrequently lost for ever after the confidence of his patient." For my own part, I have long been of opinion, and late experience has confirmed my views, that in discussing the use and abuse of mercury, and experimenting on the curability of venereal by the mercurial or non-mercurial plan, we have

* Colles on Venereal, p. 37.

too often neglected those rules which promise the chief security to the result of our treatment.

It would far exceed my proposed limits to enter at any length on the various arguments and discussions which have arisen between the two great conflicting schools on the treatment of syphilis. On both sides we find an array of talent, with patient and laborious research, that reflects the greatest credit on our profession, and to none are we more indebted than to military surgeons. In the valuable and instructive Lectures of the late Dr. Graves, edited by Dr. Neligan, we have a vast amount of information collected from various sources, and arranged in the clearest and most comprehensive style. In these pages the gifted lecturer does not come forward as an advocate on either side, but merely as "a contributor of materials," the elucidation of truth being his only object.

Although it must be admitted we are as yet far from fixed principles, nevertheless there are facts which may be studied with the utmost advantage, as pointing out to us the necessity for rejecting uniformity of treatment in primary syphilis. It is granted by both sides that after the mercurial as well as the non-mercurial plan,

secondary symptoms have supervened. When a case of secondary syphilis is brought under the notice of the surgeon, he generally, for his own future guidance, ascertains, as far as possible, whether mercury has been used for the primary disorder or not. Let him look back on experience accumulated in this manner, and he will at once recollect to have witnessed most complicated cases of secondary symptoms, that have ensued on primary affections treated some by mercury and others by an opposite plan. I am free to grant that on a careful analysis we shall find the result in favor of mercury judiciously exhibited. Yet it is certain that, generally speaking, the secondary symptoms following the non-mercurial plan are of a more mitigated type than those resulting in cases where mercury has been used in the primary stages. Neither do we meet with affections of the third order of parts in the former so frequently as in the latter—facts to be explained either by the mode in which that agent has been administered, or by the particular cases to which it has been applied.

It will probably be alleged by the respective supporters of the two schools, that in the unsuccessful cases to which I have alluded the treat-

ment was not conducted in the primary stages of the disease under advantageous circumstances ; that the patients may have been exposed to wet and hardship, and committing every species of excess ; and that they postponed their applications for hospital relief to so late a period that the result of treatment could scarcely be calculated on ; or, what is infinitely worse, they may have taken the prescribed medicines, pursuing at the same time their usual avocations, and observing none of these restrictions so essentially necessary for a permanent cure. I at once admit the strength of these objections : but if we turn to other quarters, where we know the period for treatment is not at the option of the patient, where it is entered on at an early stage, and accompanied by the observance of those rules on which we place such value and importance, we shall find that statistical data have as yet failed to remove the doubt and perplexity which obscures the question.

Of the ten cases of secondary syphilis which came under my notice in the General Hospital, but one was treated with mercury during the primary symptoms. From these very limited data the evidence is in favor of that agent; but

on examining the return from Chatham Hospital already referred to, there appears scarcely any distinction. In seventeen of the cases of secondary disease admitted during the two regimental years, the treatment of the primary ulcers has been recorded, and it appears that in 9 it was non-mercurial, and in 8 mercurial. If we now refer to larger data, and examine the joint official return of Sir James McGregor and Sir William Franklin, we learn that of 1,940 cases of primary venereal sores on the penis, cured without mercury between December, 1816, and December, 1818, 96, or $\frac{1}{20}$ were followed by secondary symptoms; whereas, of 2,827 cases of primary ulcers treated with mercury during the same period, only 51, or $\frac{1}{55}$, were followed by secondaries. Now, although this return appears in favor of mercury, it by no means renders the solution so easy as may at first be supposed. No classification of the primary ulcers is, under either of the plans of treatment, presented to us; we know not how many were of the indurated class which admittedly require mercury, or what proportion was represented by the non-indurated species, in both instances. Knowledge of this description might materially modify our views of

the conclusions that have been drawn as to the comparative value of the mercurial and non-mercurial treatment. Two facts are, however, clearly deducible from the above ; first, that of 1,940 cases of primary sores cured without mercury, no secondary disease occurred in 1844 ; and secondly, that of 2,827 cases of primary sore treated with mercury, secondaries occurred in 51. These facts clearly prove to us that mercury can be considered neither as a specific or necessary remedy in all cases of primary syphilis ; and the same facts would also suggest to us that, inasmuch as success has followed under both plans of treatment, there are distinct forms of the disease requiring distinct modes of treatment.

Many, I am aware, will deny altogether the favorable results of the non-mercurial treatment as first promulgated by the late Mr. Carmichael ; and although I am by no means prepared to coincide with that distinguished surgeon in all his propositions, it would be an act of signal injustice to pass unnoticed the merit he has achieved as an original investigator. At a period when the pernicious effects of mercury were producing the most disastrous consequences in the hospital to which he was attached, he began to think for

himself; and after a series of patient observations and inquiries he matured and gave publicity to his views. The subject attracted the attention of Sir James McGregor, then Director-General of the Army Medical Department, who, fully alive to the importance of the proposed change, brought it under the notice of the regimental surgeons. It was tested in their hospitals; and the influence thus produced, together with the strong impression subsequently made by the publications of Guthrie, Hennen, Rose, Ferguson, and others, terminated not in the abandonment of mercury, but in its cautious and modified administration; while at the same time the non-mercurial treatment was available in such cases as appeared suitable for it. And what was the result? I happen to have before me the "Return of the number of soldiers who were invalided at Chatham, and finally discharged from the service between the 1st of January, 1825, and the 24th of October, 1828," and out of the gross number, viz. 7,963, but 13 were in consequence of venereal. Moreover, I find in the body of this interesting report the following remarkable passage:—"Since mercury has been less liberally exhibited for the cure of this disease, the

proportion of men rendered unfit for the service by this class of diseases has been comparatively small." The return from which I quote will be found in the " Regulations for the Management of Army Hospitals, printed in 1845.

Although it cannot be denied that certain forms of primary syphilis are curable without the aid of mercury, I am by no means prepared to accept with unqualified assent all that has been advanced in support of this view ; and in submitting my reasons I shall have to refer to an important paper which at the time excited considerable attention, published by the late Mr. Rose, in the 8th volume of the Medico-Chiurgical Transactions. In any remarks I may consider it my duty to offer on this publication, I must not be considered as wishing to disparage the labours of one who has done so much in this field of inquiry. The observations of Mr. Rose cannot be perused but with interest and instruction. The candour and fidelity with which his opinions are delivered, as well as the industry and zeal evinced by him in pursuit of fixed principles, have earned for him deserved reputation. It would be not only an error but a great injustice to suppose that this gentleman was exclusively

a non-mercurialist. In his paper he distinctly mentions the "complete success" he experienced from modified courses of mercury; and if we require further evidence, we shall find it on the authority of Sir Astley Cooper, who states in his Lectures that he questioned Mr. Rose on the subject, and the reply was in favour of mercury. I would, in fact, infer that Mr. Rose differed very little from the views of Mr. Guthrie; who, notwithstanding that, in allusion to mercury, he mentions "its inutility in many cases," yet in another place he speaks of it as expediting a cure, and securing permanent results.

In the cases detailed by Mr. Rose as treated without mercury, my attention has been particularly attracted to the state of the cicatrices of the primary ulcers on the dismissal of the patients from hospital. In eight out of the ten recorded I find "considerable thickness" or "hardness" noted in the final reports, and one of these eight patients returned, six days after his discharge from hospital, with "bubo" and "cicatrix of chancre inflamed and ulcerated." Similar failures have been recorded by Mr. Guthrie in his admirable paper on this subject. Now, I can never admit that there is perfect security against the

supervention of secondary symptoms when the cicatrix presents the above condition ; even Mr. Rose himself has granted that "it was always regarded as a suspicious circumstance." It is quite true he has given us to understand that all the men so treated were examined almost weekly, and for a considerable time evinced no constitutional symptoms. So far these cases were fortunate ; but when we turn to the seventeen cases of consecutive syphilis recorded by him, and observe that in eleven of these the cicatrices of the primary ulcers were "indurated" or "thickened," we are not disposed to view such appearances and the occurrence of secondary symptoms as mere coincidences.

I am the more anxious to dwell on this condition of the cicatrix, "le plus souvent le signe d'accidents à venir," as it has been well designated by Ricord, because examples of it have come under my notice which have proved remarkably tedious as well as obstinate in resisting treatment. In some instances these cicatrices will continue for several months, developing from time to time such morbid phenomena as must satisfy us that the original disease has not been eradicated. The

following, which is perhaps an extreme case, occurred a few weeks ago.

John Magennis, aged 45, a married man, by occupation a labourer, applied to me in consequence of a small induration, about the size of a split pea, at the free edge of the prepuce. It was of a whitish colour, except at the apex, which was of a pinkish hue, and slightly excoriated. He states that about four years ago he had exposed himself to infection, and in seven days afterwards a sore appeared, which under the use of aperients and washes healed, leaving a hardness which was constantly "breaking out." On the forehead and behind the ears a few isolated copper-coloured blotches were discernible. Under the use of the iodide of potassium and baths the induration and eruption disappeared in about six weeks.

The late Mr. Colles has offered some excellent remarks on this condition of the cicatrix, and in cautioning us on the subject, has illustrated the serious consequences to be apprehended, by the case of a young man who had the imprudence to marry a few days after his chancre had healed. The cuticle was rubbed off, and Mr. Colles was called on a fortnight afterwards to treat the wife for

chancre and bubo.* The case of the tradesman's wife, detailed further on, may be considered in conjunction with this ; there is, in fact, a wide difference between healing a specific ulcer and curing the disease. Unquestionably some of these indurated cicatrices prove innocent ; for instance, I know a gentleman who has had one at the free margin of the prepuce for fifty years, and yet never suffered from ulterior results.

Although certain forms of primary syphilis have been distinguished as imperatively requiring mercurial treatment, it must be admitted that cases frequently occur where doubt and embarrassment are experienced as to the propriety of adopting it, or the security of dispensing with it altogether. This difficulty has been specially dwelt on by Guthrie, Rose and others, who have taken an impartial view of the question, and recorded permanent success under both plans of treatment. And it has frequently occurred to me that our investigations might be turned with more profit and advantage in this direction, than in endeavouring to inculcate and uphold one particular plan to the exclusion of others. Syphilis cannot be taken as an exception ; like every

* Colles on Venereal, page 80.

other curable malady it repudiates uniformity of treatment. We must, therefore, use our experience, and having examined each case minutely and noted constitutional peculiarities, look back, and adopt that plan which has proved efficient in similar instances.

If we apply ourselves to the study of syphilis, we shall find it presented to us under different forms, some characterized by a greater degree of malignancy than others which assume a more mitigated and manageable type. The cause of this variety has given rise to much discussion, and still remains a question of doubt and speculation. Some authors attribute it to certain peculiarities of constitution, and various other circumstances which operate materially in modifying disease. This opinion has not been controverted ; on the contrary, it is entitled to serious consideration, and in support of it we have a case recorded by Mr. Rose in his excellent paper, to which we cannot attach too much importance. The patient was "a healthy young man, who was affected with a decidedly sloughing sore on the penis in consequence of a suspicious connexion. It was not attended with any constitutional disturbance, and yielded readily to mercury. He twice

afterwards, at a very considerable interval, had a fresh infection, and the sores each time had precisely the same character with the first." Mr. Rose further adds that "this is no uncommon occurrence." In alluding to the great value of this case, I cannot avoid suggesting the very interesting field it opens for future investigation. Let the regimental surgeon, by whom alone it is practicable, adopt this line of research, and I venture to predict that facts of the most important nature will result.

Another class of authorities account for the various forms which the disease assumes, by asserting that we have a plurality of poisons which produce distinct results. Such was the view entertained by the late Mr. Carmichael, who has brought forward a number of arguments and facts in its favor, adducing the authorities of Bell, Evans, and Ricord in support of his opinions.* It is not my intention to enter on this field of enquiry, which has given origin to so much interesting discussion; nevertheless, I cannot avoid dwelling on one class of facts, which, in my opinion, have erroneously been brought forward in proof

* Lectures on Venereal Diseases, reported by Dr. Gordon. Lecture II.

of this doctrine. I allude to the results of the experiments by inoculation instituted by M. Ricord. These experiments, to which we shall presently have occasion to refer, were, it must be recollected, performed not on another or healthy individual, which M. Ricord considered unjustifiable, but on the patient himself; and therefore so long as it remains doubtful what share constitutional peculiarities have in modifying the disease, we obviously cannot argue the question at issue on the results arrived at by M. Ricord, because the same peculiarities are present to operate on the sore produced by inoculation, and thus render it identical in its features with the original primary ulcer. Inoculation cannot then afford a conclusive argument in favor of the plurality of poisons, unless the experiment be performed by conveying the virus, not to another part of the same, but to that of a second individual, as was practised in the experiments with gonorrhœal matter recorded by Benjamin Bell. The oft-quoted case of the Lisbon opera dancer, detailed by Mr. Ferguson, who was able to pursue her usual occupation, and infected some officers with the most frightful phagedena; and the not less remarkable instance given by Professor Porter in his admirable essays

recently published, of a courtezan who infected several college students, who were attacked with ulcers of different characters, appear to me to afford very strong evidence to prove that the varieties of the disease depend not on a plurality of poisons, but on some modifying constitutional cause or accidental circumstance, such as the mode of living adopted previous to the time of infection. At all events, it is satisfactory to find the distinguished surgeon who has with so much ability advocated the former view, coming forward with a degree of candour equally creditable to him, and stating that "in a practical point of view, whether we admit one, two, or four, or any number of poisons is a matter of total indifference, provided we make ourselves acquainted with the grouping of symptoms, or of the different forms of venereal disease."*

Although considerable attention has been devoted to descriptions of the characteristic features of the primary ulcer, we shall often experience both difficulty and doubt in arriving at a satisfactory decision. The test proposed by Hunter and Abernethy is no longer available, since it has been proved that all sores will heal without the

* Carmichael's Lectures, page 53.

aid of mercury. Much, and we grant deserved stress, has been laid on the indurated margin, the indolent surface devoid of granulation and healthy secretion, the period of the existence of the sore, and its having followed a suspicious connexion ; but all these evidences may be present without any specific disease. A patient may apply to us with precisely the above appearances and history, in a state of anxiety as to the real nature of his case, which probably his own uncalled for interference has complicated. He will state that about three or four weeks previously he had illicit connexion, and that shortly afterwards he observed a slight scratch or excoriation, to which he applied bluestone or some other escharotic. He may tell us that he repeated this application frequently. We shall, moreover, learn that he had gone about his usual avocations as previously, and partook of stimulating diet and beverages without restriction. Now this is often the history of an ulcer presenting most suspicious features. Fortunately the test is easy and at hand. When we meet with such a case, and have reasonable doubts as to its specific nature or otherwise, let us at once confine the patient to the recumbent position, insist on a reduced scale of diet, and direct water

dressing to the ulcer. The result of this, with due attention to the state of the bowels, which ought to be freely evacuated, will often satisfy us ; after three or four days, that we had only to contend with appearances brought on by the patient's own imprudence.

With the view of establishing a positive and unequivocal test, experiments by inoculation which had been instituted by Hunter, Evans, Bell, and others, with the object of investigating the nature of venereal diseases, have more recently been entered on by M. Ricord, and conducted with a degree of energy and perseverance which has reflected deserved reputation on that distinguished surgeon. In order to give an idea of the extent of the experimental enquiries pursued by this high authority, as well as to convey some knowledge of the nature of his conclusions, I will supply a few extracts from his Traite Pratique des Maladies Vénériennes:—

"Toutes les sécrétions, normales ou morbides, chez les individus réputés syphilitiques, ont été examinées par la voie de l'inoculation, et une seule forme a fourni des résultats constants, et cette forme, c'est l'ulcère primitif, autrement dit le chancre.

Le chancre qui est à la vérole constitutionnelle ce qu'est la morsure du chien enragé à l'hydrophobie, ne produit, toutefois, un pus spécifique qu'à une certaine époque de sa durée, et c'est bien certainement faute d'avoir apprécié ce fait si simple, que les résultats de l'inoculation ont pu étre contestés ou paraitre incertains. Il est bien évident que l'ulcère syphilitique primitif ne saurait étre le mème à toutes ses époques, et qu'il ne pourrait arriver à la cicatrisation, s'il ne passait enfin à l'état d'ulcère simple par la destruction de la cause qui tendait à l'entretenir; or, on ne saurait exiger de ces différentes phases des caractères semblables, des resultats pareils; c'est à la periode de progrès ou de statu quo de l'ulcération, alors qu'il n'y a pas de travail de cicatrice, que le chancre sécréte le virus vénérien.

"En effet le chancre, comme nous l'avons déjà vu, a deux phases bien distinctes; la première, a laquelle le nom appartient rigoreusement, est celle d'ulcération croissante ou stationnaire; c'est elle qui fournit le pus spécial; la seconde qui est celle de réparation, n'arrive que par la passage à l'état d'ulcération simple, permettant la cicatrisation ou la transformation sur place, et ne fournissant plus la sécrétion spécifique virulente."*

* Pages 85, 86, 88.

M. Ricord then proceeds to state that if we take the matter from the chancre at the period he has pointed out, and insert it, with the aid of a lancet under the epidermis, the characteristic pustule and appearances will result.

The experiments by inoculation, as performed by M. Ricord have been repeated by Dr. Egan of this city, who has reported that of 29 cases in which he experimented with matter taken from the indurated ulcer, failure followed in but 1. In the non-indurated ulcer it appears he was not unfrequently foiled in obtaining the characteristic pustule. In bringing forward these exceptions to the conclusions of M. Ricord, the author has candidly set forth the objections that may be raised against the conclusiveness of his own researches; still, on the whole, he does not seem to admit that inoculation provides a positive and unerring test.*

The value of the test proposed by M. Ricord has, with other important questions connected with syphilis, been canvassed in a series of highly interesting and instructive papers recently published by Professor Porter in the Dublin Medical Journal. In these productions the talented

* Egan on Syphilis, p. 29.

writer has pointed out the fallacies to which he supposes the doctrines of M. Ricord may lead, and has presented to us an amount of valuable and philosophic reasoning worthy of our most careful perusal.

CHAPTER II.

PRIMARY SYPHILIS.

When we consider the great variety of appearances presented by primary ulcers, we shall at once understand the difficulty that exists in arriving at such a classification as could be said to include the different and distinctive characters they assume. Hitherto every attempt has ended in disappointment. Under these circumstances I have thought it better to adhere to the arrangement proposed by the late Mr. Carmichael. It is the classification I have been most familiar with, and it will be found sufficiently comprehensive for practical purposes.

Previous to entering on the separate consideration of these ulcers, I shall allude briefly to an affection which frequently produces much anxiety in the mind of the patient, but which is not to be classed as a specific disease. Some individuals seem particularly subject to it. I allude to

the patchy excoriation sometimes observed on the glans penis and inner surface of the prepuce. In this disease the prepuce is frequently tumid, but not discoloured except in neglected cases, where we have observed it to present a pale pinkish hue; on pressing this covering, intense tenderness is frequently complained of, not confined to a particular point, as in subpreputial ulcer, but rather diffused. On continuing our pressure towards the orifice of the prepuce, a thin creamy discharge, in some instances tinged with blood, appears. If we now retract and expose the glans we shall observe it rather swollen, and its surface occupied with a superficial, wide-spread, and irregularly shaped excoriation covered with a yellowish matter, but in some parts of a raspberry appearance. It is extremely sensitive and painful.

The management of this affection is very simple, our object being to destroy the morbid surface at once. With this view, the glans being exposed, we carefully dry the surface with a portion of soft lint, and then brush it over with a solution of nitrate of silver of the strength of twenty or thirty grains to an ounce of distilled water; having then laid on a single fold of dry lint, we

gently draw forward the prepuce over it. By this treatment all morbid sensibility is at once destroyed, and if we examine the part twenty-four hours subsequently, we shall find the excoriation presenting a healthy aspect, and the inflammatory irritation diminished. Some slightly stimulating lotion, containing a minute quantity of sulphate of copper, or zinc, or nitrate of silver, will then complete the cure.

The simple primary ulcer is the mildest and least formidable of syphilitic sores, and fortunately the form that most frequently comes under our notice. We seldom have an opportunity of seeing it in its earliest stage ; but having witnessed it once or twice we can scarcely forget it, so marked is the coincidence with the descriptions patients themselves will give of its origin and progress. They will tell us that they first observed a small itchy or painful pimple, surrounded by redness, and with a clear white top, which soon became yellow (pustule.) If this occurs on the external surface of the penis, where it is exposed to the drying influence of the atmosphere, a scab is formed, on the separation of which, either by mechanical means or a spontaneous process, an ulcer appears. If the specific

pustule be under the prepuce, it is generally ruptured, and ulceration sets in. No scab is formed in this case, owing to the continued moisture of the parts and the exclusion of the air. On examining the ulcer at this period the surface is slightly excavated and of a light buff colour, covered with a thin scanty discharge, sometimes tinged with blood. The margin, which is generally irregular is devoid of induration as well as that raised or elevated appearance observable in the form to be described presently. Should the case be presented to us at a later stage, the cavity seems effaced, and the surface, now raised, has a smooth fungoid aspect ; moreover, the discharge, instead of being thin and unhealthy, is of a thicker consistence and whiter colour, resembling pus. This latter condition of the ulcer, which sets in about the ninth or tenth day, has been designated, as we have just shown, the reparative stage ; and the former, or that previously described, the ulcerative. These distinctions it is necessary to bear in mind in order to guide our treatment.

The period at which the above appearances commence after exposure to the syphilitic virus, varies according to the condition as well as the

structure of the surface to which it may be applied. If there be any previous abrasion or excoriation of the part the disease will, as might be anticipated, manifest itself at an early date, as also if the cuticle covering the part be thin and delicate. Thus the symptoms will appear later when the poison is applied to the external surface of the penis, than when it has been introduced under the prepuce. Mr. Hunter has known the symptoms to commence in twenty-four hours after exposure. I am disposed to think that in such instances some breach of surface or ulceration had previously existed. The same authority has also known even seven weeks to have elapsed before the supervention of morbid appearances ; and Mr. Lawrence relates an instance where the interval was five weeks. Such examples we are only to receive as interesting records of extreme cases. On the general average we are probably correct in stating that the specific appearances are developed between the fourth and seventh day after impure coition.

Treatment.—If an ulcer of this class be brought under our notice during the early stage, there can be no doubt of the value of caustics in

arresting the further progress of the disease. They must be applied freely and diligently so as totally to destroy the surface, on which a portion of dry lint may then be placed for protection. Escharotics of various kinds have been used;* the late Mr. Carmichael recommended the powdered nitrate of silver to be conveyed to the bottom of the ulcer on the end of a moistened probe. Although I have never adopted this plan I can readily understand how effectual it would prove in not permitting the smallest speck of the sore to escape its influence. I have frequently used this preparation in the solid form reduced to a fine pencil, and with very satisfactory results. The acid nitrate of mercury has also been spoken of most favorably, as also the nitrate of copper in a deliquesced condition. This latter I can speak of with confidence having used it for some years past. It appears to destroy most effectually and expeditiously the surface to which it may be applied—whatever caustic we use the object is the same, viz. to destroy the specific character of the ulcer, and reduce it to one which will not secrete the peculiar virus of the disease. The occurrence of bubo has been apprehended from this practice ;

* M. Ricord recommends the Vienna paste.

but if we insist on quietude, and judiciously regulate the diet and treatment, we need entertain no fear of such a result.

Should the effect of our first cauterization appear partial or unsatisfactory, we must again have recourse to the same means. But if the escharotic has produced the desired intention we shall find on the separation of the dressing, that the slough has been detached, and a simple ulcer is presented to view. The local treatment then becomes simple ; very weak solutions of nitrate of silver, sulphate of copper, sulphate of zinc, or the black wash may be used ; indeed the dry lint alone will often heal the sore. In the use of these dressings there is one point we should particularly caution our patients on. The too frequent renewing of them ought studiously to be avoided. We shall often find that over-anxiety will induce the patient to be constantly examining the parts ; and I have known this mischievous practice of tearing off the dressing produce a degree of irritability in the sore which very much retarded the healing process. The quantity and quality of the discharge will be our best guides as to the proper periods for renewing the dressing.

If it should happen that the case is not brought

under our notice until the second or reparative stage has set in, caustic applications will be not only unnecessary, but productive of injurious results. At this period we have simply to select such local remedies as are calculated to promote the speedy healing of the ulcer. Weak solutions of the metallic salts just mentioned will generally effect this object. The yellow wash, composed of a grain or a grain and a half of the bichloride of mercury to an ounce of lime water, as also the black wash made with the chloride of mercury and lime water, are in frequent use. We shall observe considerable variety in the proportions adopted in prescribing these remedies, especially the latter, in which fifteen grains to the ounce of lime water has been directed. On the nearest calculation, we shall find that eight ounces of lime water will not decompose more than forty-six grains of the chloride. The temperature of the weather may make some slight difference in consequence of variations in the lime water—lime being more soluble in cold than in warm weather, a fact ascertained by Dalton.

When the ulcer exists on the external surface of the prepuce or body of the penis, the dressings medicated with these lotions are liable to

become dry, and produce irritation of the sore. I have therefore been in the habit of applying by means of a camel-hair brush a solution of nitrate of silver lightly over the surface of the sore, and subsequently laying on it a portion of lint spread with simple cerate to retard evaporation. This method also secures the more effectual application of the local remedy, than if it were left to the patient's own management.

Although considerable and well merited value has been attached to the use of escharotics in the earlier stages of the ulcer, we must not place undue reliance on the result of their operation. It is true, M. Ricord states that if the caustic be applied before the fifth day, there may be no apprehension of future symptoms ; but, on the other hand, Mr. Colles, whose accuracy was undoubted, has known a chancre completely cut out on the first or second day after its appearance, yet the occurrence of secondary symptoms was not prevented.* It is obvious, then, that we cannot establish any fixed rule on this point, and until we have some means of ascertaining the period when the system becomes poisoned by the absorption of the virus, we must only proceed with the best of

* Colles on Venereal, p. 77.

our judgment, giving the patient the full chance of that security which the remedy has been known to have effected in other cases.

In the constitutional treatment of the simple primary ulcer, we shall rarely have occasion to resort to mercury. In the first instance we direct our attention to the state of the bowels. Colocynth pill combined with calomel or blue pill, followed by a saline aperient, may be administered with the view of producing free evacuations. Tartar emetic in solution and in minute doses will then be of service in allaying any undue inflammatory action ; and when this has subsided, we may, after a few days, have recourse to the iodide of potassium in combination with sarsaparilla. Under this plan we shall generally succeed in effecting the desired result. Cases have occurred to me where the ulcer evinced an indolent character, and a disposition to resist these means. In such instances I have had recourse to mercury in the form of Plummer's pill in alterative courses, but not persisted in to salivation ; and under this modification of treatment the healing of the sore was uniformly expedited.

In the course of the above treatment the most careful attention must be paid to diet, which is

to be selected in strict reference to the condition of our patient as well as to the objects we have in view. In the early stages we direct such articles as are least calculated to produce over-excitement, as milk, bread, rice, sago, tea, &c. After a few days we shall be able to relax our restrictive system by the allowance of some animal food, which may be increased according to circumstances ; we need scarcely add that all stimulating beverages are inadmissible.

Of the great importance to be attached to dietetic restrictions in the treatment of syphilis, we are supplied with a remarkable proof in a valuable statistical return from the Hôpital Val de Grace, Paris. From this document we learn that of 1312 cases (including both primary and secondary symptoms) treated in that institution, from April, 1825, to July, 1827, some were treated with mercury and some without ; some had animal food, the others vegetable and mild diet. Putting the other treatment out of the question, the average duration of the cases on meat diet was fifty-five days, that of those on vegetable diet thirty-three days.*

I am quite prepared to hear it remarked that these cautions with reference to diet are unneces-

* Lawrence's Lectures, *Lancet ;* 1829-30, p. 762.

sary, as no surgeon would think of neglecting so important a portion of the treatment ; but I have the strongest reasons for thinking the contrary. About a few weeks ago a labouring man applied to me in consequence of an extensive copper-coloured eruption, chiefly occupying the neck and forehead. This man had been treated by a very intelligent surgeon for the primary affection. He said he had undergone a course of mercury, and on my asking him the nature and quality of the diet used by him at the same time, his reply was "beef diet." On asking him further what he meant by this, he informed me, "the usual beef ordered in hospital." Now I give this case not with a view of passing strictures on others, or of suggesting what might have been the result of the mercurial treatment had it been accompanied by proper restrictions as to diet, but simply and solely with the object of meeting the remark I have anticipated.

Perfect rest in the recumbent posture must also be enjoined. If there be not much local inflammation, confinement to the sofa will answer every purpose. Whilst in charge at the regimental and general hospitals, I scarcely ever permitted a man to leave his bed until the ulcer

was healed; such, in fact, was my rule. An exception might occur, where the patient was otherwise delicate and weakly, and the sore continued stationary,—on the point, as it were, of healing. In such a case I have observed a change from the recumbent position to be of marked advantage.

It may probably be alleged that constant confinement to the recumbent position, when no undue inflammatory action is present, is not only unnecessary, but calculated to be injurious, by producing a state of debility. My experience has been directly the reverse. Always impressed with a sense of the arduous duties the soldier had to discharge on leaving hospital, I watched for the earliest opportunity, consistent with the state of his case, to allow him a liberal quantity of nourishing diet, in the selection of which the admirable dietaries afford the army medical officer such extensive latitude. Under this system the strength of the man was so little impaired, that when I thought of discharging him to regimental duty, which I never did without having carefully examined the state of his pulse and general condition, there was seldom any difficulty experienced. In reference to diet, it will be

observed that it is the quality rather than the quantity our restrictions affect.

Although the simple primary ulcer generally yields more speedily than other forms of the disease to treatment, it will sometimes assume a tedious and obstinate character, especially if the health be otherwise impaired. I recollect a case of this description that was admitted into one of my wards in the General Hospital. The patient was extremely delicate, and the under surface of the scrotum and penis, towards its root, was studded over with ulcers in a fungoid state. The man had been in this condition for a considerable period prior to his admission. At first the symptoms remained obstinate, but ultimately yielded under a course of sarsaparilla and iodide of potassium, assisted by nutritious diet, with animal food and a liberal allowance of porter. The local application I found most effectual in reducing the fungoid surfaces was blue lint, which may be prepared by immersing in a solution of sulphate of copper a well selected portion of lint ; this, when carefully dried, may be carried in the ordinary pocket-case. I have made it of various strengths, but that which has been saturated with the solution of two grains to the ounce of

distilled water will be sufficiently active for ordinary purposes. In using it we apply a piece of the exact size and shape of the ulcer, and retain it by moderate but firm pressure when such is practicable. It is not to be disturbed for twenty-four hours, at the expiration of which we shall frequently observe so great an improvement in the ulcer as to render a repetition of the lint unnecessary. Some gently stimulating lotion may then be substituted.

Phymosis.—Sometimes the ulcer is situated under the prepuce, which in consequence of neglect and mismanagement may present a highly inflamed and swollen condition, with its orifice so contracted as to render its retraction utterly impracticable. From this a copious, thin, unhealthy discharge is observed to issue ; and in addition to these local symptoms a considerable degree of symptomatic fever may be present. To this condition the term Phymosis has been applied. The course to be pursued in such a case is obvious ; the patient must be strictly confined to the recumbent posture, and when the bowels have been freely evacuated, tartar emetic in nauseating doses is to be administered, so as to reduce inflam-

matory action. On the same principles the diet is to be carefully regulated. The local treatment consists in repeatedly injecting tepid water under the prepuce so as to cleanse the parts, and subsequently introducing black wash. Under this plan the symptoms may subside so as to allow the retraction of the prepuce and the exposure of the ulcer ; but if this result should not ensue, and especially if a degree of induration with increased redness and tenderness should appear at one particular spot, we may rest assured that the sooner we become acquainted, by operative interference, with the nature and extent of the disease we have to contend with, the better. With this object we freely divide the prepuce, and thus expose its internal surface, with the glans penis.

In consequence of the great deformity and subsequent inconvenience resulting from the superior division of the prepuce, it has been proposed to divide this covering inferiorly. The proceeding is very simple ; a fine director is to be introduced as far as the corona parallel to the frenum underneath the parts to be incised. A sharp pointed bistoury is then passed along the groove, and the prepuce being transfixed at the deepest point corresponding to the corona, its

division towards the free margin is readily accomplished. Several surgeons have recommended that on the performance of this operation the surface of the ulcer should be cauterized, so as to prevent inoculation of the wound. Now, I confess I have frequently omitted this practice, not considering it applicable to the ulcer, and I have never observed the omission of it to be followed by the serious consequences apprehended. I account for this by the knowledge that a large bleeding wound is the least likely to admit of the absorption of any specific virus into the system, and therefore it is that when we desire to effect a successful inoculation, as, for instance, in vaccination, we proceed by making superficial cutaneous punctures or incisions for the reception of the matter to be absorbed. In support of the practice I have pursued, I may adduce the authority of Mr. Lawrence, who, in the lectures from which I take the following extract, makes no mention of cauterization :—

"I have divided," says Mr. Lawrence, "the prepuce in a great number of instances, in cases where the worst kinds of ulceration have existed, either upon the glans or upon the internal surface of the prepuce itself, and I have never in any

one single instance seen any ill consequences result. I have never seen an unfavourable ulceration take place on the margins of those wounds; on the contrary, in instances where a sloughing or phagedenic state of ulceration has existed, and the sores have been exposed by such a division of the prepuce, I have very frequently seen that the margins of the divided prepuce—that is, the edges of the wound—have maintained a perfectly healthy character, and have actually healed while the other destructive process has continued to present irregular sores."*

Paraphymosis.—Primary syphilis may also be complicated with another morbid condition of the prepuce; which, like that just described, frequently results from neglect and mismanagement, and is sometimes accompanied by very urgent inflammatory symptoms. Instead of the contracted orifice of the prepuce being in its natural position, as in phymosis, it in this disease constricts the body of the penis posterior to the glans, which is swollen and of a purplish hue. When we proceed to examine the parts, we observe the integuments of the penis indented, and

* *Lancet*, 1829–30, p. 768.

perhaps deeply ulcerated by the unyielding pressure of the preputial margin, which is directed backwards towards the pubis. Anterior to the constriction the prepuce is swollen and œdematous; with, perhaps, numerous small ulcers studding its surface. To this state the term *paraphymosis* has been applied. Here, as in phymosis, our treatment must be decisive; otherwise the vitality of the organ may be seriously imperilled. We accordingly endeavour to restore the parts to their natural position, by drawing forward the prepuce with the index and middle fingers of both hands, whilst at the same time we compress and force backwards the glans with the thumbs. Should we fail in this intention, we must introduce a director from behind forward, under the constricting margin, which is to be freely divided by means of a sharp-pointed bistoury. In this simple operation we shall sometimes experience a little delay in the introduction of the director, not only in consequence of the tightness of the constricting part, but also of the tumefied state of the body of the penis posterior to it. By firmly pressing on this, however, we readily overcome the difficulty, and facilitate the passage of the instrument. The stricture being

freed, we direct our attention to the specific disease.

Sometimes a venereal ulcer will occupy the immediate neighbourhood of the frenum, where it generally assumes a tedious irritable character. If not arrested, it will spread slowly and gradually, evincing but little disposition to heal until it has effected either the perforation or destruction of that appendage, after which the healing process will usually set in. As I do not attach much importance to what has been advanced regarding the value of preserving a portion of the frenum, I would in such a case recommend its early division by means of a bistoury or fine scissors ; thus to expedite a cure rather than to lose time in seeking the preservation of a mere film of the structure, which the first act of coition will probably rupture.

A syphilitic ulcer may exist in the urethral canal, either in the immediate neighbourhood of the orifice, or deeper seated in the passage. It may constitute the sole disease, or complicate a gonorrhœa. In either instance the symptoms will prove most tedious and embarrassing, unless the true nature of the disease be clearly ascertained. A constant discharge issues from the

urethra, which the surgeon may mistake for simple gonorrhœa; and it is not perhaps until he has exhausted all his efforts that he thinks of examining the parts, and discovers the true cause of the symptoms. It will, therefore, be advisable, in cases of long and protracted urethral discharges, before attributing the symptoms, as is too frequently the case, to a strumous or some other morbid diathesis, to examine the canal carefully. A simple separation of the lips of the orifice may present to us the real cause, or a manual examination of the under surface of the urethra may discover the induration and tenderness symptomatic of concealed ulcer.

The immediate orifice of the urethra is sometimes the seat of a syphilitic ulcer, and no case requires more care on the part of the surgeon, in consequence of its liability to terminate in a most unmanageable form of stricture. The local treatment of the ulcer becomes a matter of the greatest difficulty, owing to the impossibility of maintaining suitable dressings in apposition with it, as well as of keeping up the influence of the applications we may select on a surface which is frequently exposed to the irritating qualities of the urinary secretion. Our object should be to

expedite the healing process as much as possible. I am in the habit of using the pencilled nitrate of silver, having previously dried the surface with a piece of lint. The muriate of antimony and nitric acid have been recommended by the late Mr. Colles, who has made some excellent practical remarks on this form of ulcer, and has proposed a very ingenious method of treating the stricture resulting therefrom.*

Ulcer with elevated margin, smooth surface, and devoid of fungus or induration.—This form of primary sore is not of frequent occurrence. It differs from the simple primary ulcer by its well-marked elevated margin and the absence of all fungoid appearance. There is no excavation, but the surface is flat, smooth, and devoid of granulation ; no induration of base or margin is perceptible. Mr. Carmichael, who has accurately described this ulcer, notices its more obstinate nature as compared with that just described ; between which and the phagedenic he has placed it ; being, as he remarks, "a juste milieu between the mildness of the one and the severity of the other." It commences in a pimple sur-

* Page 95, op. cit.

mounted by a vesicle, which soon becomes pustular, and proceeds to ulceration. Some time elapses before its characteristic symptoms are developed. Mr. Carmichael mentions the second or third week.

Treatment.—If we meet with this form of primary disease at the commencing or earlier stage, we cauterize freely, so as effectually to destroy the surface, and when the slough is detached we select such applications as are best suited to expedite the healing process. Mr. Carmichael has laid special stress on the injudicious adoption of stimulating remedies in this class of ulcer; and I am quite persuaded that a similar caution might be extended to the treatment of other forms, which are frequently rendered obstinate by ill timed and ill chosen stimulants. Let us in this case first use cold water dressin g and subsequently we may with advantage adopt weak solutions of nitrate of silver or sulphate of zinc.

The constitutional treatment during the early stages must be conducted on strictly antiphlogistic principles, perfect rest in the recumbent position, and such a selection of diet as will be least calculated to over-excite or stimulate; al-

ways taking care, however, to make such alterations from time to time as will prevent the system being unduly lowered, as nothing can be more calculated to delay the reparative process than neglect in this respect. Our therapeutic treatment consists, after having regulated the condition of the bowels, in the use of antimonials until all inflammatory action has subsided ; and subsequently we may direct the iodide of potassium combined with sarsaparilla. Mr. Carmichael has recorded special objections to the use of mercury in this form of ulcer ; and I presume he was confirmed in this view by the opinion he entertained as to its being allied to the phagedenic species. I am quite satisfied that this, as well as the simple primary sore, is curable by the non-mercurial plan ; but, notwithstanding the high authority quoted, I should not hesitate to adopt an alterative course of mercury if the case became tedious and stationary.

Phagedenic Ulcer.—We shall now proceed to the consideration of that form of primary syphilis, the distinguishing characters of which are so unmistakable as at once to enable us to recognise its formidable nature. So called from its de-

structive tendency, it proceeds sometimes slowly, but in other instances with alarming rapidity, involving in its progress the adjacent structures. It may exist in its simple form, or it may be complicated with a sloughing process, the sloughs varying both in extent and appearance. The result of these combined actions frequently leads to the most alarming consequences; sometimes threatening not only the total destruction of the parts, but also the very existence of the patient. Thus we have seen, when it attacks the prepuce, the whole of this covering melted away, if I may be allowed the expression, in the course of twenty-four or forty-eight hours. Again, when it involves both glans and prepuce, it may proceed, if not arrested by prompt and decided measures, until the entire organ becomes one mass of slough and disease as far as the pubis. In the female we have witnessed this formidable ulcer spreading from the labia to the perineum, the whole surface of which, after a short period, presented an extensive sloughing phagedena, from which repeated hemorrhages took place that eventually terminated the life of the unfortunate sufferer.

Now, without having recourse to the theory of a specific poison capable of producing the above

train of formidable symptoms, we have, I think, abundant evidence of other causes which are calculated to induce that depraved condition of the system which will dispose the ulcerative process to assume a most inveterate type. In the case of the unfortunate Lorimer, already detailed, we have an instance where habitual intemperance and irregularities had this effect. Every surgeon who has had experience of disease amongst the lower classes must have satisfied himself of this, even in cases of a non-specific nature. We are all familiar with the deep and extensive ulcerations of the legs, attended by partial sloughing and a peculiar fœtid, thin, ichorous discharge, to which brewers' draymen and habitual whiskey drinkers are subject, commencing in a "slight scratch" or "angry pimple," and surrounded by an unhealthy, dusky-red areola. A disease is developed which the poisoned condition of the fluids has disposed to, and laid the foundation of. This is an example of a vitiated state of the system, brought about by intemperance, and operating on a local affection which otherwise might have been harmless. In the same way we may account for many cases

of primary syphilis assuming a destructive and formidable type.

The very great influence exercised by the constitution in modifying local disease has been thus noticed by Mr. Hunter :—

"In speaking of the local or immediate effects of the venereal disease, I mentioned that they were seldom wholly specific, and that they partook both of the specific and the constitutional inflammation ; and therefore it is always very necessary to pay some attention to the manner in which chancres first appear, and also to their progress ; for they often explain the nature of the constitution at the time. If the inflammation spreads fast and considerably, it shows a constitution more disposed to inflammation than natural. If the pain is great, it shows a strong disposition to irritation. It also sometimes happens that they begin very early to form sloughs ; when this is the case, they have a strong tendency to mortification. These additional symptoms mark the constitution, and direct the future mode of treatment."

Simple Phagedena commences generally with

the appearance of an angry pustule, which is soon converted into an ulcer that evinces a characteristic disposition to spread and involve the adjacent parts. It presents an irregular jagged margin, devoid of induration, and a surface without any vestige of granular action, yielding a thin unhealthy fœtid discharge. This form of primary ulcer may attack any portion of the penis ; but I have seen it most frequently on the glans, where it sometimes causes deep and extensive destruction of the parts. It may encircle this portion of the organ with a deep ulcerated groove, leaving intact the surface adjacent to the urethral orifice, and also the neighbourhood of the corona. In other instances it will involve the opening of the urethra, laying the foundation for stricture ; and, lastly, it may open into the passage, either laterally, having destroyed half the glans, or towards its under surface, exposing a considerable portion of its trajet. The phagedenic ulcer may also spread backwards towards the corona, subsequently involving the prepuce, and causing extensive destruction of that covering. In addition to these local symptoms, a considerable degree of inflammatory fever may be present ; but in some cases

it is quite surprising the little constitutional disturbance we have to contend with.

Treatment.—When we consider the nature and progress of this formidable disease, the necessity for vigorous and decided measures will at once be obvious. Our first efforts should be directed to arrest the destructive process in progress. With this view, we must have recourse to escharotics. Some surgeons recommend the nitrate of silver in substance. I have been in the habit of using the concentrated nitric acid as the most certain and effectual agent. It should be applied carefully to the entire surface and phagedenic margin of the ulcer, having previously removed all moisture and discharge from the parts. After the operation, we shall find a portion of lint wrung out of cold spring water, and applied to the part, most agreeable to the patient for a few hours, after which we may direct the use of poultices. Should the first application of the acid not succeed in arresting the phagedenic action, we must have recourse to it again ; but if it should fortunately happen otherwise, and a simple ulcer be presented on the separation of the slough resulting from that agent, we then

proceed on the principles already laid down for the treatment of ulcers reduced to a healthy action.

In addition to this local treatment, we must, in the early stage, adopt active antiphlogistic means—tartar emetic to allay febrile action, and opium with the view of tranquillizing the system. The strictest attention should be paid to those rules we have already explained regarding diet and uninterrupted rest. Subsequently we shall derive marked advantage from the administration of the iodide of potassium in conjunction with sarsaparilla. Some surgeons have recommended mercury in this form of syphilis. I have not had much opportunity of testing its value, but in the hands of others I certainly have witnessed a few cases of phagedena without slough, where it was attended with successful results.

Sloughing Phagedena.—In the simple phagedena which we have endeavoured to describe we had but one morbid process in operation, by which the disease extended to the adjacent structures. But in the ulcer now under consideration we have an additional one to contend with, by

which the destruction of the parts is accomplished with an alarming rapidity. Besides these local consequences we have a train of constitutional symptoms, which require the utmost vigilance and attention on the part of the surgeon. I have stated elsewhere that this formidable ulcer is generally met with in those who have been addicted to excess and dissipation, and probably neglected the disease until it had assumed an aggravated condition. We therefore may not see it until it has arrived at such a state as to alarm the most reckless. It usually commences in an angry pimple or dark speck, surrounded by a high degree of local inflammation and swelling. When the patient presents himself, the ulcer, which may occupy the prepuce, or glans, or both, appears of an irregular form, with jagged edges, undermined in some places, and destitute of induration. The surface is uneven, devoid of reparative action, and occupied by a slough varying from a light-brown to a black or true gangrenous form. Should any hemorrhage have occurred, we shall frequently notice clots of blood incorporated with this slough ; towards the margins the surface is smeared with a dirty whitish fœtid discharge. In addition to these appear-

ances we shall find the body of the penis enormously swollen, and of a dusky-red hue. The degree of pain varies extremely ; in some instances it is very acute, but in others I have been surprised how little it was noticed by the patient. If the disease be neglected, and allowed to pursue its own course, the slough will separate, to be succeeded by another of perhaps larger dimensions ; at the same time, the phagedenic action will continue its ravages at the margin ; and thus these two operations, acting in concert, and increasing both the depth and extent of the ulcer, will proceed with fearful celerity, until the whole or greater portion of the penis shall be destroyed. Alarming and repeated hemorrhages will also take place from the surface of the sore, producing a degree of exhaustion requiring our most watchful attention. In the early stages of this formidable disease, the fever is of the inflammatory type, but it very soon assumes the asthenic, characterized by marked prostration of the system, feeble and accelerated pulse, brown furred tongue, and haggard expression of countenance. Where much blood has been lost, I have noted occasional delirium towards night.

The treatment of this formidable disease must

be as energetic as the symptoms are urgent. Having carefully absorbed all moisture and discharge from the ulcer, we apply the concentrated nitric acid to the surface and edges, after which the cold water dressing may be adopted for a few hours to assuage pain. Subsequently, poultices may be directed Should the first application of the acid not succeed in arresting the progress of the ulcer, we must have recourse to it again, and repeat it until the phagedenic and sloughing process shall have been arrested. In using this powerful agent we must be particular to select the concentrated acid ; it not only will be found more effectual in totally destroying the surface to which it may be applied, but it also produces less pain, in consequence of the celerity with which it acts, and accomplishes the destruction of the surface. The separation of the sloughs may be assisted, if necessary, by dressings medicated with balsam of copaiba or Peru, or castor oil.

One of the most urgent complications met with in this disease is hemorrhage, which during the progress of the sloughing process takes place, as we have already noticed, at repeated intervals, reducing the patient to an extreme state of de-

bility. This has been specially noticed by Mr. Hunter with reference to its occurrence when the ulcer attacks the glans; and he states that its frequency may be accounted for by the adhesive inflammation not taking place there sufficiently "to unite the veins of the glans, so as to prevent their cavities from being exposed." He might probably have added that the general state of prostration must seriously interfere with any such reparative efforts. With the view of arresting this alarming symptom, we have recourse to local styptics, such as spirit of turpentine or the tincture of matico. The leaves will also be found very effectual. Should these fail, we must adopt pressure, to be applied as I shall presently describe.

But our chief reliance in the treatment of this symptom must be placed in the liberal and repeated administration of opium, not only in consequence of its general anodyne powers, but also because it affords us the best chance of arresting the destructive progress of the ulcer, and thereby of preventing the occurrence of fresh sources of hemorrhage. We may administer a grain every fourth or sixth hour. The local application of lotions containing this anodyne

agent may also be used with advantage. Mr. Lawrence recommends, for this purpose, equal parts of Battley's sedative and distilled water applied by means of a piece of lint, and this to be covered with bread and water poultice. When the urgent symptoms have been arrested by these means, sarsaparilla in conjunction with the mineral acids will be found most beneficial. The iodide of potassium will also prove an agent of great value in some cases, but in other instances I must confess its results have disappointed me, so far as their *permanency* is concerned.

If a case of sloughing or gangrenous phagedena be presented to us at the early stage, and if there be much local pain and suffering, together with a high degree of inflammatory fever, indicated by a hard, full, and frequent pulse, &c. there can be no question as to the propriety of free abstraction of blood. The opinions of Rose, Carmichael, Bacot, and others fortify us on this point. After the bleeding, tartar emetic and opium will constitute our chief constitutional means. If, on the other hand, we do not see the case until a later period, when perhaps the fever has assumed an asthenic or typhoid type, our

efforts must be directed to allaying irritability and to supporting the patient; more especially if we learn that the constitution has been damaged by previous excesses and imprudence. A generous and nutritious diet, with a liberal allowance of wine, will then be required. These articles should be administered in divided quantities at stated intervals. In urgent cases a portion should be preserved for the night, when considerable exhaustion often sets in.

It will sometimes happen that the sloughing process will take a slower and more insidious course, yet one which it is hardly necessary to remark ought not to be overlooked by the surgeon. I allude to a case where the ulcer is situated on the corona and concealed from our view by a tightened phymosed prepuce. At first, when the patient applies to us, this covering is in a swollen inflamed condition, indicating the suspicion of a subpreputial ulcer, which is further confirmed by the character of the discharge from the orifice of the prepuce. Under active local treatment, combined with rest and general antiphlogistic means, the symptoms may subside in a great measure, with the exception of a slight redness and a boggy sensation in the locality of the ulcer. Now, if we

postpone decisive measures in this case, the consequence may be that the disease will burrow under the fibrous ligaments of the penis, and involve the corpora cavernosa, destroying some of their cells by slough, and agglutinating others into a hard indurated mass; thus creating a permanent defect in the organ, or perhaps it may be totally destroyed by slough. I have seen cases of this description where little more than the mere prepuce was left, covering an indurated mass. Now, some surgeons recommend us to treat such a case as an ordinary abscess, by cutting down on the dorsum of the penis, and giving free exit to the discharge. True, we can do this, but the nature and extent of the disease may still be concealed from us. We therefore recommend a free division of the prepuce, by which we shall at once be enabled to treat the primary disease.

Indurated Ulcer.—We shall now proceed to the consideration of that form of primary syphilis which is characterized by a state of induration, a condition looked upon by the late Mr. Hunter as essential to the purely specific ulcer. If we attentively study the symptoms and progress of

this sore, we shall observe that it is emphatically chronic, its peculiar features not being developed, in many instances, until the third or even the fourth week. Unless in the case of neglect or previous mismanagement, there is usually but little, if any, pain or surrounding inflammation, and the constitution seems tranquil and undisturbed. But the chief and distinguishing feature is the disposition to the exudation or effusion of lymph, which, becoming impacted into the adjacent tissues, results in a peculiar well-defined induration. As the amount or extent of this hardening will depend on physical causes, such as the laxity and abundance of cellular tissue in the seat of the disease, we attach the chief importance to the disposition to the lymphy exudation. Besides these distinctions, the indurated ulcer, as has been noticed by Ricord and others, is usually solitary. Of twenty-one cases noted by me, there were but three exceptions to this rule, and these were examples of that rare form of ulcer in which the induration is confined to the margin.

The indurated ulcer may occupy any part of the penis, but is usually found on the free margin of the prepuce, or on the corona glandis and its neighbourhood. It commences with the appear-

ance of a pimple surmounted by a vesicle, which subsequently becomes pustular. No pain or inconvenience, excepting perhaps a slight itchiness, accompanies this condition and if we gently seize the pustule between the two fingers we shall discover a thickening or hardening around it. When the pustule is ruptured either by artificial means or in its natural progress, ulceration sets in, and proceeds slowly, manifesting in its progress a disease essentially chronic. The induration, as we have already stated, is also slow in its formation, not being perfectly developed in some instances until the third week. The ulcer presents a surface uniformly indolent and inactive, devoid of granulation, and affording a thin scanty discharge. In shape and depth it varies considerably. Sometimes we shall observe it of an ovoid or circular form, with excavated surface, and in other instances it will present an irregular superficial ulceration surmounting an indurated base. The amount of induration will also be found to vary, bearing no proportion whatever either to the depth or extent of the ulcer. Thus, we may have a well-defined excavated ulcer resting on an indurated base not thicker than parchment, or we may meet with an induration of

considerable thickness and extent occupied by a superficial and irregularly shaped ulcer; such are the varieties we shall observe in the indurated primary syphilis. But it is remarkable the difference of opinion that exists as to the appearance the disease generally presents. We know that it has been repeatedly described as of a round or oval form, with excavated surface, &c. Thus M. Blandin states, "en général les ulcéres syphilitiques sont ronds . . . leur surface est enfoncée," &c. On the other hand, Mr. Lawrence, an authority second to none, states, in a letter to me on the subject, that "the ulceration is usually superficial not excavated;" and in another communication he says that it is not "peculiarly circular." In illustration of his views he has most obligingly furnished me with the following cases, which I insert with a degree of pleasure not unmixed with some pride, arising from the fact of his having devoted a portion of his valuable time to put me in possession of his opinions on the appearance of this form of the disease.

"CASE I.—On the 20th ult. a youth came under my care there [St. Bartholomew's Hospital] with a cartilaginous induration at least an inch in length, superficially ulcerated. The complaint had existed two

or three weeks, not only neglected, but aggravated by continued irregularities, so that the glans, prepuce, and integuments of the penis were inflamed, as well as the inguinal glans on both sides, with partial suppuration on the left. The ulceration was spreading, from the inflammatory state of the parts, still, however, continuing superficial. He was placed immediately on low diet, with calomel and opium three times a-day. The ulceration healed quickly, and I found yesterday that the induration, although more than usually considerable in amount, had nearly disappeared."

The second case is valuable not only for the well-marked characters of the primary ulcer, but also for the train of constitutional symptoms which had not been modified or interfered with by previous treatment.

"CASE II.—The patient, an Italian, was received into St. Bartholomew's yesterday. He has a primary sore of six weeks' duration; it was at first a superficial ulceration, and it has gradually passed into its present condition during the last three weeks. There is now an abruptly defined firm induration, the size of a filbert, at the base of the prepuce, on the left side of the glans, with a small superficial ulceration of irregular figure on its surface. It forms a conspicuous oval prominence, fully three quarters of an inch long, immediately behind the corona glandis. There is not and has not been any pain, no increased redness, nor

any change in the surrounding textures. In the left groin there is a glandular swelling, about the size of a walnut, as hard as the induration of the sore, and without pain. Scaly syphilitic eruption in rather small spots is irregularly spread over the body, being most abundant on the trunk, particularly at its posterior aspect. No treatment has been employed, and the man, a person of good constitution, is in his usual health."

With respect to the form of indurated ulcer described by Hunter, and since associated with his name, it is of extremely rare occurrence. During the whole period I had charge of the Military Hospitals but one example of it came under my notice. The chancre was on the dorsum of the penis, of an ovoid form, about the size of a small split bean. It was particularly chronic in its character, and had the peculiar cartilaginous induration of base and margin terminating abruptly, and not diffusing itself into the surrounding parts. The surface was excavated, devoid of granulation, and covered with a tenacious matter of a light buff colour. Mercury was directed in the form of blue pill, but neither the system nor local disease seemed obedient to its action. Mercurial inunctions were therefore combined with the treatment, and as

soon as the system became affected, the induration commenced to subside, granulations gradually made their appearance, the discharge became purulent, and under a steady perseverance of the same treatment in a modified degree, the ulcer contracted and ultimately healed.

That this form of disease, which has been termed the Hunterian chancre, is of rare occurrence must be admitted. The late Mr. Carmichael, whose experience both in hospital and private practice was very extensive, states, in his work on Venereal, that he had not met with more than "half-a-dozen cases of the disease as described by Hunter," during a long period. I have conversed with Sir Philip Crampton and Mr. Cusack, our most eminent surgeons in this city, and they are unanimous as to its infrequency. On referring to the communications with which I have been favored by Mr. Lawrence of St. Bartholomew's Hospital, I find that this distinguished and accomplished surgeon is not disposed to recognize Mr. Hunter's description of primary syphilis as adequate or perfect, but considers it both partial and defective ; and he naturally expresses his surprise how Mr. Palmer, his commentator, could have fallen into the strange and unaccountable

error of stating that the description handed down to us by Mr. Hunter "is applicable to forty-nine cases out of fifty."

But a question now arises. Did this peculiar form of indurated ulcer, in its pure and uncomplicated form, come under the notice of Mr. Hunter himself so often as is generally supposed? It certainly does not appear so. Although it must be admitted that a considerable degree of obscurity pervades various passages in the writings of that singularly great man, still, I think that if in this instance we separate for a moment his peculiar opinions from the facts that are deducible from his own admissions, we shall be inclined to follow the view I have laid down. The question is an important one, as involving the alternative whether the conclusions arrived at by one of the most accurate and philosophic investigators are to be considered as at variance with the universal experience of the present day, or as differing from it but in a very small degree. In his article on chancre Mr. Hunter has laid down certain symptoms which he considers as characteristic of the ulcer "of the true venereal kind;" or, as he elsewhere designates the disease, "wholly specific." And further on in the same volume he states that

" the local or immediate effects of the venereal disease were seldom wholly specific, and that they partook both of the specific and the constitutional inflammation," which latter inflammation, he remarks in another place, causes a "*diffused*" induration. Again, in his chapter on the treatment of chancres, he unreservedly affirms that " chancres are perhaps *seldom* or *never* wholly venereal, but are varied by certain peculiarities of the constitution at the time." It is needless to remark that Mr. Hunter would not have written thus had he considered the ulcer as described by him of frequent occurrence. The induration which in another place he states that venereal ulcers " commonly" have, is evidently of the diffused form, from the fact of his comparing it to that presented by many chronic sores.

Treatment.—In the observations we have offered on the treatment of other forms of primary syphilis, we particularly dwelt on the advantages to be derived from the use of escharotics in the first and earliest stage of the disease. The same remarks are applicable in reference to the local treatment of the indurated ulcer. There can be no question that, if we see the case at its very

commencement, we have in this class of remedies powerful and effectual means of at once arresting the symptoms and preventing the further progress of the disease. The remedy and object being the same in the local treatment of this as of the simple primary ulcer, it becomes unnecessary to repeat what we have already laid down; and we shall merely impress on the reader that the cauterization, to be effectual, should pass beyond the limits of the specific inflammation. After the operation a simple poultice may be applied ; and when the slough produced by the caustic has separated, the ulcer is to be treated by such local applications as our experience will direct. Solutions of different strengths, containing various metallic salts, have been used in this stage, also the black and yellow washes already referred to, and with which the surgeon is familiar.

The constitutional treatment consists in this, as in other forms of primary syphilis, of such remedies as are calculated to counteract the effects of the specific poison on the system generally. Although it must be admitted that even the indurated ulcer will heal without the aid of mercury, no practical surgeon will, I apprehend, deny that it, above all other forms of primary

syphilis, evinces a remarkable obstinacy in yielding to non-mercurial treatment. And so great is the risk of the occurrence of secondary symptoms under this plan, that we are scarcely justified in depending on its influence. Mercury, therefore, we conceive to be an indispensable agent in the treatment of indurated syphilis. A vast amount of statistics has, as we have already stated, been brought forward on the question of the comparative value of the mercurial and non-mercurial plan ; but, as I before suggested, the absence of any classification of the different ulcers takes away considerably from their value. Fortunately, however, we are provided with more tangible evidence in the present instance by Mr. Guthrie, who selected the indurated ulcer for his observations ; and he has distinctly stated that ulcers possessing the true character of chancre (induration) generally took from eight to ten, or even twenty-six weeks, when treated without mercury. It was such evidence, no doubt, that decided Mr. Guthrie's views as to the propriety of adopting mercury in modified courses, which he found to expedite the healing process. Again, we find Mr. Lawrence stating in his valuable lectures already quoted, that "the employment

of mercury is more particularly necessary in the cases of indurated chancre." There is, unquestionably, in this form of primary ulcer some distinctive condition requiring the full and decided operation of mercury on the system for its cure. I have carefully examined the cases noted by myself, and the result has been that, while I succeeded in other forms of primary disease with the non-mercurial treatment, I have not succeeded in bringing to a satisfactory result a single case of the indurated ulcer until the constitution was under the decided influence of mercury.

Previous to entering on a course of mercury, it will be advisable to adopt some preparatory treatment, with the view of securing the more favorable and beneficial effects of that mineral on the system. We accordingly commence by regulating the condition of the bowels, and reducing the diet to that standard which is least likely to promote constitutional or febrile excitement, a condition highly unfavorable to the healthy action of mercury. Indeed, when we consider the irregularities to which venereal patients have generally been exposed before seeking surgical advice, we shall at once perceive the necessity for such precautionary measures. We are not, therefore,

to look on this portion of our treatment as mere routine practice, to be adopted simply because it is usual, but as absolutely and essentially necessary for the success of our future treatment. In the field for observation to which I have referred at the commencement of these pages, I paid special attention to these preparatory steps, and carefully considered each article of diet; and on referring to my memoranda and the hospital register, I do not find a single case where the treatment was interrupted by even the most mitigated form of those untoward results, which I shall presently have to notice as occurring during a mercurial course. Undoubtedly, the strictest attention was also paid to proper ventilation, to the due regulation of temperature, and to personal cleanliness, which the hospital discipline enforced. These, of course, had their share in promoting favorable results, and deserve to be associated with the other measures I have laid down.

Mercury has been used in various forms and in different modes for the cure of primary syphilis. It may be introduced into the system either by internal administration or by inunction applied to the external surface; another mode of external

use is by fumigation ; but this plan is, I believe, not now frequently resorted to, owing, I should imagine, to the complicated apparatus required, as well as the doubts which are entertained as to its efficiency by many surgeons, amongst whom I may mention the late Mr. Colles.* The method by inunction is also objectionable, in consequence of its uncleanly and troublesome character. When, however, the internal administration of mercury disagrees with the patient, we shall often be obliged to have recourse to it, as also when the constitution evinces unusual obstinacy in resisting the mercurial action. In such cases we may be called on to combine the internal with the external use of mercury.

When it is proposed to mercurialize the system by inunction, half a drachm or a drachm of the unguentum hydrargyri fortius should be directed to be carefully rubbed in each morning. This operation may be performed by the patient himself ; or, in case he should be delicate or weakly, the office may be discharged by an assistant, who, for self-protection, should be provided with some soft covering for the hand. The late Mr. Colles recommended a pig's bladder softened

* Colles on Venereal, p. 58.

in warm water, turned inside out, and afterwards smeared with sweet oil. We usually select for the application of the ointment some part where the skin is thin and delicate, so that absorption may be carried on more effectually. With this view, the inner surface of the thigh is generally chosen. Flannel drawers are judiciously directed to be worn during the course, as thus the entire of the ointment is more likely to be absorbed; and in order to prevent any cutaneous irritation, the ointment is generally applied to each thigh alternately; and with the same object, and in order to provide a more favorable surface for absorption, the part should be occasionally cleansed with soap and warm water at bed-time, preparatory to the inunction on the following morning.

During my attendance at the Military Hospitals, I suspected, on a few occasions, that the patients, objecting to mercurial treatment, either applied the ointment inefficiently, or managed to remove by ablution any portion of it which remained on the surface after each inunction. In such cases I directed the hospital orderly to apply it while I was attending to the other cases in the ward; and when he had finished, I placed a flannel roller around the part, and sealed it with

my signet, so that deception became impossible. I observed the benefit of this precaution.

Various preparations of mercury have been used for internal administration ; blue pill, the chloride and bichloride of mercury, and hydrargyrus cum creta have each been used with reputed good results. The protoiodide and biniodide have also been recommended ; to the former of these M. Ricord gives a strong preference. He directs it to be taken in combination with extract of hyoscyamus, a grain of each in the pillular form every night ; and if it agrees, he orders a second and third pill after a while, in the course of the day. The preparation of mercury in most general use is the blue pill. I have sometimes selected the hydrargyrus cum creta with satisfactory results. When we purpose administering alterative courses, the compound calomel or Plummer's pill will be found a convenient and effectual preparation.

Should we determine on giving the blue pill, we may direct five grains to be taken twice or thrice daily ; and as a security against its disagreeing with the bowels, a quarter of a grain of opium may be combined with each pill. By steadily continuing this plan of treatment, we

shall produce the peculiar effects of the mercury on the system ; the well-known fœtor of breath will be perceptible ; the gums will become tender, and on examination will appear tumid, spongy, and slightly separated from the teeth. Incipient lines of ulceration may also appear on them. Pains in the jaws will be complained of, with inability to masticate. In addition to these symptoms, an increased flow of saliva will be observed, and the chain of glands providing this secretion will be tender and swollen. Besides these local symptoms, some slight febrile action, with acceleration of pulse, will be present. If the mercury exercises a beneficial and kindly action, a marked change is observed in the ulcer, its indurated character gradually disappears ; granulations start up at different points of the surface, and these ultimately coalescing form a red healthy surface that secretes a well-conditioned purulent discharge. This change being once established, cicatrization soon follows.

Now, it has frequently been asked how long are we to continue the mercury after its specific action has been manifested on the constitution ? Sir Astley Cooper used to say that " the great secret in the treatment of the disease is knowing

when to discontinue the use of mercury."* This I believe to be the truth. Mr. Hunter states that "when the sore has put on a healthy look, when the hard base has become soft, and it has skinned over kindly, it may be considered as cured." Now, although I am not prepared to advocate the immediate withdrawal of the mercury on the healing of the ulcer, I am certainly not disposed to adopt that protracted use of it which has been recommended by some after that event has taken place. It is not, I am persuaded, from its too limited use that failures in the cure so often result, but rather from the neglect of those precautions I have already laid down. The plan I usually adopt in cases of primary indurated syphilis is, after having induced a mild degree of ptyalism, to keep up the mercurial action, either by diminished doses of the mercury, or by prolonging the intervals between each administration, until the ulcer has healed, and all induration has subsided. I am glad, for many reasons, to have the authority of the late Mr. Colles for stating that we are not "to measure the efficacy of mercury by the amount of

* Sir Astley Cooper's Lectures, p. 510, 2nd edition.

salivation which it excites."* We therefore maintain a moderate degree of ptyalism for a certain period after the ulcer has healed ; the length of that period cannot be decided by any fixed rule, but rather by the circumstances of the disease and condition of the patient, which experience alone will teach us to appreciate. We cannot always assume even the induration as a guide ; because, as I have already shown, there are cases where it will be obstinately persistent, and prove perfectly innocent. We would not, therefore, be justified in persevering in the use of mercury beyond a certain period. Some have proposed to excise these indurations. We have the authority of Mr. Carmichael for stating that Professor Delpech was in the habit of destroying them with lunar caustic, without ever having experienced any ill effects from this practice. Several successful cases of the kind were pointed out to him by the Professor at the Montpelier Hospital.† However, as I have never tried this plan, I have nothing further to say respecting it.

In the course of these pages I have laid parti-

* Colles on Venereal, p. 33.

† Carmichael's Lectures, p. 158.

cular stress on the great value to be attached to certain restrictions as to diet and rest in the treatment of primary syphilis, and have discussed the propriety of confining the patient to the recumbent position until the primary ulcer has healed. I know well the difficulty that would be attendant on this rule in private practice, but at the same time this constitutes no solid objection to our insisting on such views, if they hold out the prospect of permanent advantages. Now, during my connexion with military hospitals, I have been forcibly struck by the beneficial effects of modified courses of mercury in the treatment of this disease ; in fact I used at first feel incredulous on hearing the opinions of some regimental surgeons on the subject ; but when we come to consider it, we shall at once understand the valuable adjuvant that confinement of the patient presents. We know that in warm climates the disease is not only more manageable, but also that smaller quantities of mercury are required to produce its peculiar effects ; and therefore the more we approximate by artificial means in this variable climate to the advantages of a mild uniform temperature, the nearer we shall approach to corresponding good results. In offering these

observations, I must not be considered as advocating the use of heated apartments ; on the contrary, carefully arranged ventilation will be essentially necessary ; and there can be no greater mistake than supposing that such is incompatible with a due and proper supply of warmth.

If I am correct in these views as to a reduced proportion of mercury being efficient under certain restrictive measures, I feel quite satisfied that the generality of patients would cheerfully submit to them, if the prospect was fairly placed before them of the permanent results to be expected from a mild and gentle course of that agent, to the protracted use of which there exists such universal repugnance. At all events, they would be reconciled to confinement to their apartment during treatment.

In the preceding pages I have endeavoured to explain the principles which ought to guide us in the treatment of primary syphilis. Wishing to test the results from my practice in military hospitals, I have examined the notes of eighty-six cases, uncomplicated by bubo, that were treated by me in the regimental hospital of the 60th Rifles and the General Military Hospital ; and I find that the average period of their treatment,

after which they were fit for regimental duty, was $30\frac{34}{43}$ days. This does not differ very much from the result of the official circular signed by Sir James McGregor and Sir William Franklin, from which it appears that the average period required for the cure of 2,827 cases, uncomplicated by bubo and treated with mercury, was 33 days. Of the 86 cases treated by me, many were complicated by a high degree of local inflammation, some by phymosis and paraphymosis, some by sloughing, and three by gangrene.

Having treated of that form of primary syphilis in which we consider the administration of mercury to be indispensible, and having described both the local and constitutional results of that agent when it produces its desired effects on the system, we shall now briefly allude to certain unfavorable consequences that follow its operation, and oblige us, for a while or altogether, to relinquish its use. These consequences are sometimes of an alarming nature, and require the most prompt and serious attention on the part of the surgeon. Unfortunately we can never anticipate them, for we have no guide by which we can establish a rational apprehension of their

occurrence. All we know is that some individuals are intensely susceptible of the influence of certain medicinal agents. For instance, I knew a lady in whom the slightest odour of ipecacuanha produced the most distressing paroxysms resembling asthma ; and I have known others in whom the most minute doses of tartar emetic caused a state of extreme exhaustion. So it is with mercury ; the most alarming symptoms may result from the smallest quantity ; and therefore we ought never to neglect the advice which has been so judiciously laid down by the late Mr. Colles, "that before we commence a course of mercury we should inquire had the individual ever used mercury on a former occasion ; and if so, whether it had produced any peculiar or dangerous effects."

Hypersalivation.—The result of excessive mercurial action consists in a profuse secretion of salivary fluid, which flows incessantly from the mouth in such abundance as to cause considerable distress and annoyance to the patient. The lips and cheeks present a swollen condition, and great tenderness of the salivary glands and neighbouring parts is complained of ; the mouth

remains partially open, and the tongue protrudes from it, in some cases so enormously enlarged and so tumid as to interfere with respiration and endanger life. Should we succeed in obtaining a view of the interior of the mouth, we shall find the mucous membrane investing the cheeks and tongue extensively ulcerated ; and in some instances sloughs may be noticed. In this condition the unfortunate sufferer is incapable of articulating, and the fœtor of his breath is offensive in the extreme ; he is unable to use even the softest forms of food, and we shall often observe even the blandest description of fluids cause intense suffering, from the motion produced in the parts during the efforts to swallow. In addition to these symptoms acute pains in the jaws, sometimes shooting upwards towards the sides of the head, will be complained of ; in extreme cases sloughing of the internal surface of the cheeks and exfoliation of the alveoli have occurred. Under these accumulated sufferings, protracted, perhaps, for weeks and causing sleepless nights, we cannot be surprised that the patient should sometimes be fretful, peevish, and desponding to a remarkable degree. Now we are to recollect that this train of symptoms, than which nothing

can be more distressing, does not necessarily bear any relation or proportion in its intensity to the quantity of mercury exhibited. We shall sometimes find excessive salivation result from the simple application of some mercurial preparation to an ulcerated surface. One of the worst cases I ever witnessed was of this description. The patient, a young girl of healthy and robust appearance, had a chronic ulcer on the front of the leg over the tibia. In the course of treatment the red oxide of mercury finely levigated was applied to the sore, and the consequence was that symptoms of the most urgent character, such as I have endeavoured to describe, set in. The tongue became enormously swollen, and the dyspnœa so excessive as to render it necessary to make deep incisions into that organ. By this measure, in conjunction with other active means, the patient was eventually relieved.

When a case of excessive salivation occurs during a mercurial course, we at once relinquish the original treatment, and remove the patient, if practicable, to another apartment, and give him the advantage of pure air. If the tumefaction of the tongue be so excessive as to interfere seriously with respiration, we must make

incisions into its lateral regions, with the view of reducing the swelling by the local abstraction of blood. Saline aperients are to be administered occasionally, in order to preserve a free state of the bowels. To the ulcerated surfaces on the interior of the cheeks and tongue we carefully apply, with a camel's-hair-brush, a solution of nitrate of silver of the strength of from five to ten grains to the ounce of distilled water. The subsequent use of gargles, containing solution of chlorate of soda or one of the mineral acids, will be found beneficial. During this local treatment we must attend particularly to the state of the under surface of the tongue, which is liable to become deeply ulcerated if permitted to rest on the lower incisor teeth, without the intervention of a portion of lint, or some other soft protecting material. I recollect a case of this description resulting from the neglect of the surgeon ; the tongue was very deeply indented and ulcerated, and the case proved most troublesome.

Mercurial Dysentery.—We shall sometimes observe very distressing dysenteric symptoms set in during a mercurial course. The patient will be seized with severe cutting pains in the bowels,

and frequent desire to go to stool; but only passes small quantities of fecal matter, mixed with slimy mucus and tinged with blood. Besides these symptoms we have some febrile disturbance, and a feeling of sickness is complained of. Under these circumstances we at once relinquish the mercury, and direct our attention to the state of the intestinal mucous membrane, which we shall generally succeed in tranquillizing by the judicious administration of opium. It is worthy of remark, as has been noticed by Mr. Colles, that after these symptoms have passed away, the mouth becomes a little more affected, notwithstanding the omission of the mercury. In fact, the supervention of dysenteric symptoms would appear to have arrested or interfered with, for a while, the influence of mercury on the salivary organs; as I have observed in cases of subacute dysentery, in which I have been in the habit of administering, with admirable effects, Dover's powder in combination with hydrargyrus cum creta in repeated doses; and in about two or three days after all symptoms had subsided, well marked mercurial salivation has set in. Doubtless, this has been noticed by others.

Erythema Mercuriale.—This disease, which was first treated of by our countryman Sir George Alley, and subsequently by Pearson and M'Mullen, was, as Sir George candidly states, known to Surgeons Henthorn and M'Evoy long before any printed publication appeared on the subject.* It has been treated of under several appellations, as mercurial lepra, mercurial herpes, erythema mercuriale, and lastly, the mercurial disease, as adopted by the earliest author on the subject. The designation I have retained has been given to the disease from one of its chief characteristic features. We learn from the account published by Sir George Alley that it was originally supposed to be of a venereal origin, an error which, as we might anticipate, was followed by the most disastrous results, owing to the continuance of that agent which was the actual cause of the disease ; and which we learn from the same publication uniformly tended to aggravate the symptoms. Doubtless, we can thus account for some of the fatal cases that have been recorded. The eruption, which is essentially vesicular, is usually

* Sir George Alley, in his Essay, which appeared in 1803, states that to these gentlemen it first became known in the year 1789. Mr. M'Mullen's publication did not appear until 1804, and Pearson published in 1807.

preceded by a tingling sensation of the skin, and generally makes its first appearance on the inner surface of the thigh. It presents a bright-red hue, studded over with numerous minute vesicles, which causes the "rough feel" noticed by Sir George Alley.* The disease subsequently spreads to other parts of the body, passing upwards on the trunk, and extending to the face and eyes. Considerable constitutional fever accompanies these symptoms in some instances; while in other cases there is but little disturbance. Shortly after, the vesicles burst, and give exit to a discharge emitting a heavy and most disagreeable odour. In some places thick scabs are formed, but generally extensive desquamation of the cuticle ensues. This formidable affection, like that we have just treated of, does not appear to be due to an excessive use of mercury. Mr. Carmichael has "often known a few grains of calomel or blue pill to produce this eruption, and even knew one instance in which indications of it would occur from the use of black wash on a

* Vide Sir George Alley's admirably descriptive "Essay on a peculiar eruptive disease arising from the use of mercury."

primary ulcer."* The same remarkable circumstance has been noticed in the history of erythismus mercurialis published by the late Mr. Pearson. The treatment of this disease is obvious. We at once relinquish the use of mercury, pay the strictest attention to cleanliness, change of bed-linen and clothing, recommend the patient to be transferred to another and a well-aired apartment, or to the country if the weather be favorable, and direct generous but not stimulating diet. The occasional use of tepid baths will also be of service in restoring the healthy condition of the skin. If the case be of a more formidable type, accompanied by fever, we must of course be guided in our management of it by the character of the fever.

Erythismus Mercurialis.—The next unfavorable train of symptoms I shall notice, as resulting from the use of mercury, has been so accurately described by the late Mr. Pearson, that I gladly avail myself of his description. The disease is most alarming in its character, sometimes terminating fatally and in the most unexpected manner, on the patient making some slight

* Carmichael's Lectures, p. 174.

effort or exertion. It is ushered in by "paleness of the countenance, a state of general inquietude, and frequent sighing; the respiration becomes more frequent, sometimes accompanied by a sense of constriction across the thorax; the pulse is small, frequent, and often intermitting, and there is a sense of fluttering about the precordium."

In the treatment of this affection we at once abandon the use of mercury, expose the patient to free open air, and administer stimulants, so as to restore the vital energies. After this we direct a generous and supporting diet, with a liberal allowance of wine. We must also attend particularly to a total change of bed-linen and clothing. The last example of this formidable affection that came under my notice was in the case of a gentleman who had been undergoing a modified course of mercury for primary syphilis. On the supervention of the untoward symptoms, I at once had him carefully removed some short distance out of town, where he remained until finally cured.

An erythematous condition of the throat and fauces sometimes results from the use of mercury. In this affection the tonsils are swollen and red, and a superficial ulceration occupies their surface;

the velum is also affected ; considerable pain and difficulty of swallowing are experienced. We, of course, will not confound these appearances with a syphilitic disease ; the history of the case will be, perhaps, our best guide. The above condition may either occur during the mercurial course, or appear some days afterwards from exposure to cold. Extensive sloughing of the throat has also been induced by the action of mercury.

I must not omit to mention that the primary sore under treatment may exhibit serious indications from the untoward action of mercury. An unhealthy inflammation may be set up in it during a mercurial course, and a sloughing or phagedenic process be the result. The same may attack an ulcerated bubo under similar circumstances. We must, therefore, carefully watch the condition of the local disease, taking it as an index of the effects of our treatment.

CHAPTER III.

PRIMARY SYPHILIS.—BUBO.

We shall now proceed to consider the disease as it affects the inguinal glands, causing an enlarged condition of these bodies, and constituting the primary symptom termed bubo. In conjunction with this, the lymphatic vessels intervening between the primary ulcer and diseased gland may be inflamed, or present that thickened indurated state which Mr. Hunter considered to be essentially venereal, and which more recently M. Ricord has associated with the bubo resulting from the indurated ulcer. The late Mr. Wallace, in noticing this affection of the lymphatic vessels, states that for one case in which we shall find it occur, we shall find two hundred in which the gland alone is affected.* Although my experience has not satisfied me as to the frequency of the lymphatic disease, which I understand M. Ricord to uphold, I certainly cannot coincide in the

* Wallace on Venereal, p. 343.

opinion which has been laid down by Mr. Wallace on its comparative infrequency.

Enlargement of the inguinal glands is by no means a necessary consequence of primary ulcers. Neither does it follow that secondary symptoms must be preceded by a manifestion of disease in these bodies, which may remain in their apparent natural state notwithstanding the absorption of the virus into the system. Some forms of primary ulcer are less liable than others to be followed by bubo. Thus the gangrenous or sloughing phagedena is seldom succeeded by this affection. The last instance I saw of it was in the case of a private of the 55th, who was under the care of Dr. Blake, of that corps. The ulcer had destroyed a considerable portion of the left side of the glans penis. It presented the well-marked phagedenic margin, and the sloughing process was in operation at the centre. A bubo of three days' standing and of considerable size was seated in the inguinal region of the same side. The inguinal disease, as has been correctly noticed by Mr. Bacot, generally arises in those cases where the progress of the sore is slow. According to the experience of Ricord, bubo inevitably results from the indurated chancre. He also states

that the bubo in this instance partakes of the indolent indurated character of the primary sore, and that if it suppurates, which rarely occurs, it never furnishes pus of a specific character. The inguinal disease resulting from the non-indurated ulcer is, according to the same authority, inflammatory and essentially suppurative. This form of bubo, the result of absorption, is not, according to him, pernicious to the constitution. It may be attended with or preceded by an inflammation of the lymphatics.*

Symptomatic bubo varies as to the period of its appearance. In this respect, also, M. Ricord has laid down a distinction between the bubo resulting from the indurated and that resulting from the non-indurated ulcer ; the former being, according to his experience, earlier in its occurrence after the appearance of the primary sore, seldom exceeding the second week ; whereas the latter, he states, may be deferred for weeks or even months. The disease is confined to the superficial glands, and usually involves but one of these bodies, whilst the sympathetic enlargement, as that resulting from a gonorrhœa, involves the deeper seated glands, and is not confined to one.*

* Ricord's Lectures, by Stapleton.

With the view of establishing a true pathognomonic sign by which we might distinguish the bubo resulting from virulent absorption, M. Ricord instituted a series of interesting experiments by inoculation, the result of which was, that whilst other forms of bubo were incapable of furnishing inoculable matter, the operation performed with the virus procured from the specific species was followed by positive results, or the appearance of the characteristic pustule. In conducting these experiments, and testing their true value, the virus is to be procured from the very gland that is specifically diseased, and not from the surrounding tissues in which the inflammation is not specific.* These experiments have been repeated by Mr. Hamilton of this city, and with results corresponding to those detailed by M. Ricord. They have also been performed by Dr. Egan, late surgeon to the Lock Hospital, and the conclusion he has arrived at is that although this test by inoculation will in many cases serve to distinguish the nature of the cause which produced the secondary effect, "it does not form an unexceptionable pathognomonic sign."*

* Traite des Maladies Vénériennes, p. 140 et seq.

Astruc, Swediaur, Bertrandi, and others describe a distinct form of bubo as occurring after impure connexion, without the appearance of any previous disease on the external genital organs. Mr. Hunter also affirms that he saw similar instances, and M. Ricord until a late period included this species in his classification, which he designated the primary non-consecutive bubo (bubo d'emblée). His opinion as to the existence of any such disease has since, however, undergone a total change, as we learn from his letters just alluded to. Considering the very minute and inconsiderable ulcers which sometimes give rise to buboes, we can readily understand how the erroneous opinion in question might have originated.

The syphilitic bubo generally occurs on the side corresponding to the primary ulcer, though not universally so. Mr. Hunter states that he has known a few instances in which it was on the opposite side, "a proof," as he observes, "that the absorbents either anastomose or decussate each other." Its occurrence appears to be most frequent when the primary ulcer is located on the prepuce; thus, of 23 cases of syphilitic bubo noted by me, the ulcer occupied the prepuce

in 15. According to Mr. Bacot, when the glans penis alone is the seat of the ulcer, bubo seldom takes place. The disease usually commences as a small, hard, moveable tumour, having at first no connexion with the investing skin, which presents its natural colour and freely moves on the subjacent tumour. Presently the tenderness which was at first complained of is converted into pain, which grows more acute as the bubo enlarges and becomes fixed. More or less febrile disturbance also sets in at this period. If we watch the progress of the swelling, it will be observed gradually to increase, and exceed the specific distance; the skin will become red, and adherent to the tumour; the surrounding cellular tissue is soon involved, rendering the local disease more diffused and of larger dimensions. As the tumefaction increases, the surface becomes tense, bright, and glistening. The pain changes from an acute to a throbbing character and the febrile action becomes more urgent. If at this stage we examine the swelling, we may observe one part more prominent than the rest, and a distinct fluctuation will be perceptible. Presently the cuticle that was before tense and shining becomes shrivelled, and ultimately yields

before the ulcerative process, by which exit is afforded to the contents of the suppurating tumour.

But the syphilitic bubo does not always exhibit the above symptoms and acute progress. It will sometimes appear as a hard, indolent tumour, circumscribed, confined to one gland, devoid of pain, and slow to suppurate. A well-marked instance of this class of bubo is presented to us in Mr. Lawrence's second case, already detailed. It will be observed that it closely resembles the primary ulcer in its indolent indurated condition, and the total absence of all pain.

In the treatment of bubo our chief object should be to procure resolution ; this we attempt by constitutional as well as local means, enjoining at the same time uninterrupted quietude in the recumbent position. If there be much local inflammatory action, the application of leeches will be advisable, after which the constant use of evaporating lotions may be directed. In some instances warm fomentations, followed by cataplasms, will exercise a powerful discutient influence over the tumour. Besides these local measures, we adopt such constitutional means as are calculated to allay febrile action and di-

minish the local disease. For this purpose purgatives, followed by antimonials and strict attention to diet, are resorted to. If, under these measures, the acute symptoms should subside, and the glandular disease assume a chronic character, we may have recourse to the local application of the compound tincture of iodine, and the internal administration of the iodide of potassium in conjunction with sarsaparilla. At this stage we must recollect to improve the diet of of the patient, as neglect of this would be likely to produce a state of the system favorable to unhealthy suppurative action. I shall presently have to refer to the great importance of this precaution in favoring the resolution of the chronic form of bubo. With respect to the use of mercury, I have not, generally speaking, found it necessary to have recourse to it ; but if the bubo should be indolent, and a syphilitic ulcer of an indurated type be co-existent, I should have no hesitation in adopting it, especially if the general health was otherwise good, and mercurial treatment had not previously been used. The late Mr. Hennen objected altogether to its use in the early stage of the disease. When bubo is the only symptom present, I quite agree

with Mr. Bacot that we ought not to give mercury, because the disease may be mistaken in such a case.

In addition to the local applications just detailed, other means have been proposed with the view of promoting resolution of these tumours when the inflammatory symptoms have subsided. Amongst these may be enumerated blisters, which in many instances we have found most efficient. In the *Archives Générales de Medicin* for March, 1832, we shall find an account of a method proposed by M. Malapert, which consists in blistering the bubo, and afterwards dressing the surface with a solution of the bichloride of mercury (℈j. ad ℥j. aquæ distillatæ) ; the result of which, after two or three hours, will be the production of a brownish slough, the separation of which is to be assisted by poultices ; and when this is effected, some simple cerate may be used to the exposed surface. Should the tumour not yield to the first use of this remedy, its repetition will be required, provided, as has been judiciously observed by M. Ricord, who reports most favorably of the plan, symptoms of acute inflammation do not supervene. I have had opportunities of testing this plan, and I am

satisfied as to the efficiency of its operation. My friend Dr. Egan, who has adopted it for some years " in all stages of the disease," states that in most cases he has " effected resolution of the tumour and absorption of the matter, even where suppuration had advanced to a considerable extent.* The great objection to this plan of Malapert consists in the acute and intolerable pain caused by it, and the permanent deformity resulting from the cicatrix. For these reasons M. Ricord confines its adoption to those cases of bubo preceded by chancre.†

Graduated compression, carefully and firmly applied to the surface of the tumour, will also be found efficacious, provided inflammatory symptoms do not complicate the case. M. Ricord has been most successful in this treatment in cases of indolent bubo, and in other forms after the inflammatory stage has passed away; and he has described a very ingenious contrivance for its application.

But if the acute symptoms should not subside under the treatment we have laid down for the early stage; if we find the bubo to advance,

* Egan on Syphilitic Diseases, p. 270.

† Traité des Maladies Vénériennes, p. 587.

becoming more prominent and softer, and the investing skin of a redder hue ; we look forward to suppuration, and the evacuation of the contents of the abscess. Now the period at which we should open a suppurating bubo is a matter of considerable importance. I shall not discuss the propriety of the proposal of the late Mr. Wallace to make a free incision into the tumour even before matter has formed ; because, whenever I knew the operation to be performed too early—before the bubo had advanced sufficiently —I generally observed delay in the curative process, and in some instances an unhealthy, irritable inflammation was set up. In one case the diseased gland, half detached from the surrounding parts, was presented floating on an accumulation of unhealthy matter, and the surrounding skin was irritable and inflamed. I shall not refer further to the extreme practice proposed by Mr. Wallace, whose experience, I am glad to find, was that " few patients would submit to it."

To avoid the unfavorable consequences I have pointed out, we wait until fluctuation is distinct, and then evacuate the matter by means of an ordinary bleeding lancet ; the opening need not be extensive. The line of incision is of consider-

able importance ; that usually adopted is, I believe, the transverse. M. Ricord advises us in all cases to open in the direction of their greatest diameter (dans le sens de leur grand diamètre) ; but we shall find the perpendicular line of incision infinitely preferable, inasmuch as it is less calculated to favor either the lodgment or burrowing of the matter. This we will understand by considering the effect which flexion of the hip will have on each of these incisions. It must tend to separate the lips of the perpendicular wound, and thus facilitate the free exit of the discharge ; whilst, on the other hand, it will have the effect of closing the transverse wound. The importance of this will be best appreciated if we remember that during the state of quietude in bed the hips are generally flexed. This is no mere speculation. I have tried both plans, and found that buboes opened in the perpendicular direction healed much sooner than those operated on in the usual manner. The advantage of the former plan in the chronic suppurating bubo, where we apprehend the formation of sinuses, will at once occur to the practical surgeon. When the purulent matter has been evacuated, we shall generally find that the constitutional disturbance will

subside, and then we treat the local disease on such principles as will favor the filling up of the abscess, and the consequent obliteration of its sac. The administration of sarsaparilla with the iodide of potassium may be adopted in conjunction with nutritious diet until this is effected.

In order to avoid the tedious suppurations, extensive destruction of integument, and consequent disfigurement, &c., a very ingenious method of evacuating these abscesses has been proposed by Mr. Milton of London, and practised by him with considerable success. My attention was first called to this operation by Mr. South of St. Thomas's Hospital, London, who obligingly sent me a copy of Mr. Milton's Essay on Bubo, in which the subject is treated of. Mr. South, in a private letter to me, states regarding the method in question, "I have tried it fairly, and think it a capital proceeding. . . . . I have successfully followed this practice at St. Thomas's, almost from the first." The following extract from Mr. Milton's Essay will explain the operation, which the author states "rarely if ever fails." "So soon as matter is perceived, a small lance-headed needle, such as is used in hair-lip, is inserted into the skin half an inch below the abscess, and

pushed up into it. When fairly in, pressure is made with the left thumb on the swelling, and kept up while the needle is withdrawn. A small stream of pus follows ; and if it does not, the needle should be introduced in another place. When all the pus is expelled that gentle pressure will bring away, the wound is immediately closed by a very small piece of flax or lint, not larger than the head of a large pin. The next day the lump will be found as prominent as ever, but when its contents are drawn off, they are found to be principally clear fluid (lymph), with perhaps a little pus. Great relief will have been obtained, the pain and weakness abated, and the redness lessened. After this the puncture is repeated only every third or fourth day, a smaller quantity being yielded each time in consequence of the lessening of the cavity. Some of the punctures may slightly ulcerate ; but I have never seen this extend beyond the size of a split pea. All they require is a little water to keep them thoroughly clean, and the re-application of the lint."* During this local treatment Mr. Milton administers the iodide of potassium in calumba

* Essay on Bubo and Perineal Abscesses, by John Milton, M.R.C.S. : London.

infusion. I have nothing to offer on this operation from my own experience.

In the *Dublin Quarterly Journal* for November last, "Observations on the treatment of Acute and Chronic Abscess by the method of Drainage Tubes," a system of treatment invented by M. Chassaignac, have been published by Dr. Thomas Ledwich of this city. In that interesting communication the author has specially directed attention to the great success attending this plan when applied to the treatment of the acute suppurating syphilitic bubo, and especially to that of a more chronic form of the disease which he describes at length, and of the treatment of which by drainage he states, "its great advantage is demonstrative as a curative agent in combating a tedious if not formidable affection." The instruments used in this operation consist of a canula and trocar about ten inches long, the shaft of this latter being moveable in the handle, and a portion of caoutchouc tubing, somewhat smaller in calibre than the canula, with a number of lateral perforations. In operating we cautiously plunge the sheathed trocar into the abscess, and then make a counter puncture from within at some distance from the first. The trocar is now re-

moved, and the tubing passed along the canula, which is then to be withdrawn. The ends of the tubing projecting from the openings are then tied together, and light dressing applied. If the abscess is large an additional tube may be passed across its sac. The tubes should be allowed to remain until all pain subsides, the discharge diminishes, and the cavity becomes small and solid, with inversion of the margins of the tube apertures.*

It has also been proposed to promote closure and adhesion of the sac by injecting some stimulating fluid into its cavity. My friend Dr. Dempster, Deputy Inspector-General of Military Hospitals, tells me he has experienced the greatest success from this plan. He has adopted it even where the skin covering the abscess was so thin as to allow of the exit of matter at points where leeches had been applied, and through one of these openings he has introduced, by means of a syringe or elastic bottle, some tepid water in order to cleanse the sac ; and when this was accomplished, he injected about a drachm of tincture of iodine, which he allowed to remain. Perfect quietude, with steady uniform pressure on the part, com-

* Vide Dr. Ledwich's paper.

pleted the obliteration of the sac. Dr. Dempster has informed me that he tried this plan in upwards of a dozen cases, and that after an average period of from ten to fourteen days the men were discharged to regimental duty.

Subsequent to the opening of a bubo, either by a spontaneous process or an operation, it may happen that one of the inguinal glands will protrude from the cavity, presenting a considerable fungus above the level of the skin. I had a remarkable case of this during the period of my charge at the General Hospital. It occurred in the case of private Thomas Wherritt, 2nd Dragoon Guards, noted in the Register. The gland presented an extremely swollen condition, and protruded through an opening in the integuments about the size of a crown piece. I applied potassa fusa liberally to the surface, and on the separation of the slough the tumour was much reduced. The application was repeated with equally beneficial results, and on the eighth day after admission it was reported that the diseased structure was nearly on a level with the skin. Subsequently I used the blue lint, accompanied by well-adjusted pressure. The constitutional means consisted in the internal administration of

bark with the iodide of potassium, assisted by generous diet and a liberal allowance of porter. Ultimately the man was discharged to duty.

It will sometimes occur that a bubo will proceed to suppuration by a slow process, the skin thinning not at any particular point, but in a more diffused and general manner. Now this is a case peculiarly adapted for opening by means of potassa fusa, by the adoption of which we shall not only expedite the discharge of the matter, but also destroy a large portion of integument so thinned that we could scarcely expect to preserve its vitality, and which, if not removed, would in a subsequent stage very much delay the curative process. The escharotic also produces another beneficial effect by exciting a healthier action in the sac of the abscess, which disposes it to contract and heal more rapidly.

A bubo may assume a sloughing or phagedenic action, which, spreading extensively and deeply, will threaten the integrity of the femoral vessels; and it is quite surprising the little constitutional disturbance or local suffering which will be manifested in some of these cases. Although, generally speaking, it is quite true, as has been stated by

Mr. Carmichael, that "a bubo seems obviously to evince the same mildness or malignity as the primary venereal ulcer from which it originated,"* still we are to recollect that it may present a very different character from the primary sore; owing, perhaps, to causes irrespective of the original disease. I certainly have seen instances, few I grant, of sloughing buboes that followed ulcers of a mild and chronic form. Dr. Blake of the 55th has kindly supplied me with notes of four cases that occurred in the regiment when stationed at Gibraltar. In three, no appearance of primary sore was to be detected; from which I would infer, as Mr. Carmichael himself was inclined to conclude in cases of bubo not traceable to a primary sore, that "the ulcer was of so trifling a nature as to escape the patient's attention, and afterwards spontaneously healed."* In the fourth case "a small primary sore with indurated edges existed on the prepuce, and a bubo in each groin. Extensive sloughing attacked the one on the left side after being opened. The original sore had healed some time previous to this, but never indicated any similar disposition. Dr. Blake attributed the unfavorable character of the above

* Lectures by Gordon, p. 109.

cases to the influence of unhealthy winds which prevailed at the time; and no doubt such cases may be thus operated on, independent of the natural tendency of the specific disease.

The treatment of this form of bubo must evidently be decisive. Having carefully absorbed, by means of a portion of lint or sponge, all moisture from the surface, we carefully apply the concentrated nitric acid to the edges, and wherever the destructive process is visible. A fold of lint saturated with cold water is then to be laid on the part; this will prove agreeable to the patient by tranquillizing pain. Subsequently, poultices may be directed; a full opiate should be administered after the operation. The late Mr. Colles used to apply the muriate of antimony to the phagedenic bubo, and stated that, however large the surface, it will begin to heal even if the edges alone have been touched. This preparation should be procured in the recent state, when it is opaque and of the consistence of soft butter; hence it is called butter of antimony. When the disease has been arrested by the escharotic, the application of which must be repeated if necessary, we select such dressings as are best calculated to promote healthy granular action. Our constitu-

tional treatment will consist in the internal administration of iodide of potassium, with sarsaparilla and generous diet. In some cases quinine will be found beneficial.

Ulcerated buboes may be complicated with fistulous sinuses, which burrow in various directions, but more frequently inwards towards the scrotum, between which and the thigh they may pass backwards to the perineum. The ulcer will present a glassy indolent appearance, overhung at its margin by livid flaps of skin. I scarcely know of any form of the disease more tedious or unmanageable than this. We shall generally observe it in such as are of a delicate and strumous habit. In fact, there appears to be a peculiar state of constitution which operates most unfavorably in complicating this disease. I have seen almost every expedient tried to effect a cure, and success result only after a considerable time. Stimulating injections will prove uncertain, and if we lay open the sinus with the hope of promoting healthy action and ultimate cicatrization, we shall often be disappointed. The fistulous canal thus exposed will frequently persevere in maintaining a glassy inactive surface, notwithstanding the most attentive local and constitu-

tional treatment. In some instances the ulcer will be found exquisitely sensitive and painful on the slightest touch, especially towards the margin. This was remarkable in the case of private Hayner of the 41st regiment, who was in one of my wards at the General Hospital. Even the most gentle and cautious application of the dressings caused acute pain. Sometimes we shall have to encounter in this form of disease small but repeated hæmorrahages, chiefly venous, which prove extremely distressing and debilitating to the patient.

The sinuses, as we have stated, usually take an inward course in this form of the disease. They may, however, follow an upward direction towards the abdomen, and result in serious consequences. I have noted a case where a sinus passed upwards and inwards at right angles with the spermatic cord, which I concluded became involved in the disease, as some time subsequently the testis of the same side began to waste, and ultimately atrophied.

In the treatment of this complicated disease our best plan is at once to reduce the sinus to an open surface, that it may be the more amenable to such local applications as we may select.

We accordingly, with the aid of a bistoury and director, expose the fistula in its entire trajet. If it should happen that it extends not only some inches, but also, as I have known it, deep amongst the parts, so as to give rise to hesitation in adopting this treatment, there can be no objection to making a counter opening at the extreme end, and trying the effects of a seton. In some instances the formation of the counter opening will of itself expedite the cure; when the sinus has been laid open, our subsequent attention must be directed to the selection of such remedies as are suited to the character of the ulcer. If there be much irritability, t may be necessary to cauterize the surface with the solid nitrate of silver ; otherwise we may simply dress the ulcer from the bottom with weak solutions of this salt or the sulphate of copper. I have also used the blue lint with marked benefit.

We shall frequently find considerable delay in the healing process, resulting from loose flaps of livid integument overhanging the ulcer. Some recommend the removal of these by escharotics ; but this mode I have found so tedious and uncertain, as well as painful, that I have latterly given the decided preference to excision by means of the

scalpel or fine scissors. The late Mr. Wallace reported most favorably of the effects of "vesication of the diseased integument, and also of the sound skin for a little way beyond them, by the nitrate of silver," to be repeated every three or four days, or as often as the surface of the integuments to which it may be applied becomes covered with a new cuticle." By this means he states that he has observed "integuments which had been separated so as to form a flap of several inches diameter, and which were so diseased in their structure that they lay on the extensive ulcer like a layer of dead matter, to have their energy restored, and their surface agglutinated to the subjacent parts."* Not having tested this plan, I am not warranted in giving any opinion on it, further than to remark on the more expeditious character of the treatment by excision. Unquestionably the preservation of integument and the prevention of unsightly cicatrices and deformity are worthy of consideration.

But the constitutional treatment is of the first importance in this disease. We should direct all our efforts to invigorate the system without inducing feverish excitement. Sarsaparilla, bark,

* Wallace on Venereal, pp. 380–1.

the iodides of potassium and iron will each in particular cases prove beneficial. With respect to diet, it ought to be nutritious, but not so heavy as to tax the efforts of the digestive organs. If, in a case of this kind, where the patient is confined to bed, we continue daily to allow large quantities of animal food, it will have the very opposite effect from invigorating. During my medical charge in Dublin garrison, I had a few cases of a most tedious character, in which the change from animal to milk diet resulted in marked and beneficial effects. In some instances change of air will become necessary.

A bubo, instead of occupying one or two glands, may involve a large mass of these bodies, forming a chronic indolent swelling in the inguinal region, sometimes of considerable magnitude. It is universally firm to the touch, the surface is devoid of discoloration, and there is a total absence of pain. The general health appeared but little affected in some instances that came under my notice. If such a case be neglected and allowed to take its own course, it will probably proceed to an unhealthy form of suppuration; but by some patience and attention I think we shall

succeed in obviating this, and procuring resolution At the same time we must be prepared to contend with a most tedious form of disease. The local treatment I usually adopt consists in brushing the surface with the compound tincture of iodine or the acetum lyttæ. I have also used a combination of both in equal proportions. The object of this is to keep up moderate irritation, so as promote absorption. Sometimes an undue excitement was produced on the part; and in this case I postponed the repetition of the remedy until the surface was prepared for a re-application. In the interim poultices were applied. The constitutional treatment consisted in the administration of iodide of potassium with sarsaparilla or bark, and nourishing diet with a reasonable allowance of porter. Under this plan, steadily pursued, we shall succeed in procuring, resolution of the bubo, even when it has attained considerable magnitude.

In some of these cases of indolent bubo, where all the ordinary measures have failed in reducing the tumour, we shall often derive considerable benefit from the internal exhibition of Donovan's solution (liquor arsenici et hydrargyri hydriodatis) combined with its external use in a diluted

form as a lotion. I have preserved notes of one case which was of two years duration. The patient was a young man about twenty years of age. The superficial inguinal glands of the right side formed a considerable swelling, and the surface of the skin was irritable and ulcerated. To this a solution of nitrate of silver, in the proportion of twenty grains to the ounce of distilled water, was applied, and subsequently sedative lotions were directed. Sarsaparilla, iodide of potassium, and bark were administered internally, but without any good effect. After four months the disease ultimately yielded to a course of Donovan's solution used internally and externally. The treatment was suspended for a while in consequence of the supervention of gastric symptoms, but was resumed on their subsidence. Milk and vegetable diet was used at the same time.

A lupoid form of ulceration, obstinate in the extreme, sometimes attacks the inguinal region, which on one or two occasions I suspected to be connected with a syphilitic taint. The surface for a considerable extent presents a red, smooth, shining appearance, as if cicatrized. On different

parts of it tubercular elavations appear. These tubercles ulcerate superficially, and heal only to break out again. No pain of any moment is complained of. I cannot say as a rule that the patients appeared to suffer much in health. I have tried in this disease sarsaparilla, acids, iodide of potassium, bark, various preparations of iron, and mercury in alterative courses, but without success. I have also on two or three occasions destroyed the surface with potassa fusa, and without benefit. In this disease I think I have observed benefit to be derived from Donovan's solution.

A very unmanageable consequence of bubo has been described by the late Mr. Colles. It consists in an ulceration spreading superficially "along the inside of the thigh, in some cases even to the anus; in others it extends upwards on the abdomen, and in some it occupies both situations. One edge of this ulcer is deeply and slowly increasing or eating away, while the opposite is thin and may be healing. This is what has been described as the horse-shoe ulcer. It is often very sensitive." Mercury in general, according to

Mr. Colles, does not serve this symptom; it sometimes even seems to cause its rapid extension; yet in some cases, he adds, very minute doses of it will be found most useful in disposing the ulcer to heal. The black wash has been particularly recommended by the same authority in this disease.

CHAPTER IV.

CONSTITUTIONAL SYPHILIS.

It will sometimes happen, notwithstanding all our efforts, and the adoption of all the means at our disposal, that certain sequelæ will set in, consequent on absorption of the specific poison from the primary sore into the system. These sequelæ or visible signs, the result of that latent process which our earliest efforts were directed to counteract, appear in a variety of forms, involving tissues hitherto in a healthy condition, and observing a remarkable regularity in the order of their succession ; the earlier symptoms, including eruptions, affections of the throat, eye, &c. and the bones with the fibrous tissues being engaged at a more remote or later period.

In the following observations I shall endeavour to describe those forms of secondary syphilis which have come under my own notice, and which the practitioner will chiefly have to contend with.

I do not promise to include all the different species of cutaneous affections that occur in this disease, and which hitherto have defied every effort at classification. The great variety in these appearances has been pointed out by Bateman and others. The experienced surgeon is prepared for it, and therefore the student must not be disappointed when he fails to discover authoritative descriptions of rare and anomalous forms of syphilitic eruptions which may chance to be brought under his notice.

But the difficulty does not terminate here; for although I have in general terms described constitutional syphilis as presenting certain visible signs, the disease may nevertheless exist in the system, and be capable of producing the most disastrous consequences, and yet not afford a single trace or outward symptom of its presence. This I shall illustrate on the high authority of Mr. Colles, who has met with more than five or six instances of it. "A newly married man, who is himself free from every appearance of syphilis and every other disease, shall yet infect his wife in such a manner that secondary symptoms shall appear in her in a few months after marriage, and these not preceded by any primary symptoms,

or by any discharge whatever from the genitals.* These difficulties I put forward, not with the view of discouraging future enquirers, but rather with the object of marking out the extensive field which is presented to us for investigation.

The question of the infectious nature of constitutional syphilis, which has been maintained in the negative by all the genius and talent of Hunter, and more recently by the experimental researches of Ricord, presents a wide and interesting topic for discussion of the highest practical importance ; and I am glad to find that the subject has been so ably taken up by Professor Porter in the admirable series of essays already alluded to. In these productions a mass of evidence has been adduced on the affirmative side of the question which seems to me unanswerable. My attention was first attracted to this subject very shortly after I had served my apprenticeship. About that period I was requested to see a lady affected with an extensive eruption on the forehead and back of the neck, which after some hesitation I suspected to be syphilitic. Mr. Peile, late Deputy Inspector General of Hospitals, and surgeon to the Richmond Hospital in this city,

* Colles on Venereal, p. 263.

to whom I had been apprenticed, saw the case with me. I freely told him my suspicions, but stated at the same time that the lady's husband had no trace of primary sore, but simply an eruption, apparently syphilitic, on the surface of the body. I shall never forget the energetic manner in which Mr. Peile then asked if I had any doubt on that account, "for," said he, "I never had." This opinion coming from one who possessed such ample and extended opportunities for observation made a strong impression on me, and, coupled with the case then before us, and which I should state Mr. Peile at once decided to be syphilis, formed the starting point of that experience which led me to adopt the affirmative of this important question. From conversations I have had with some eminent men in this city, I have reason for supposing that their views are similar. Mr. Carmichael states that "the matter of constitutional eruptions *may* be contagious;"* and if we consult the lectures delivered by Mr. Lawrence at St. Bartholomew's Hospital, we shall find that eminent surgeon, (in alluding to the opinion of Mr. Hey of Leeds, viz. that the husband labouring under secondary syphilis may

* Lectures, edited by Dr. Gordon, p. 51.

by cohabitation communicate the disease to his wife ;)* stating, "I acknowledge that also is the impression on my own mind, from the circumstances that have come under my observation."†

With regard to the opinion which has been so ably sustained by Mr. Carmichael, that certain eruptions are naturally associated with particular forms of primary sores, there can be no doubt that the great majority of cases we witness will go to support this view ; and if it be true, as I have stated, that the constitution influences the latter, it is as probable that the former or secondary appearances are as much under its control ; and thus we may be able to account for the grouping of symptoms—the same modifying causes which dispose the primary ulcer to assume a mild or destructive form influencing likewise the type of the secondary disease. Unquestionably we sometimes meet with instances which would appear to contradict this rule ; and I have myself witnessed very complicated forms of secondary syphilis in individuals who represented the primary sore to have been of the most simple

* Medico-Chirurgical Transactions, vol. 7.

† Lancet, vol. 1, 1829-30.

and manageable character. Such was the case of the tradesman's wife which I shall presently detail. That woman laboured under a most malignant form of secondary phagedena, and ultimately sunk in a miserably exhausted state under phthisis. Yet the unfortunate creature repeatedly assured me that the primary sore was of the simplest form, and caused her but little distress. I am not in possession of the treatment that was adopted in hospital before I saw her, but I have strong reasons for believing that she was not sufficiently careful of herself, and that both to imprudence and mismanagement on her own part was due that state of the general health which disposed to the symptoms that subsequently ensued. A case very similar to this is recorded by Mr. Wallace ; that of a man named Peter Hatchet, who was affected with the worst and most extensive phagedenic ulceration of the skin and throat, yet the primary symptoms were so very mild that he did not deem it necessary to apply on their account for any medical assistance. It is to be regretted that Mr. Wallace does not give the history of the man's case during the interim between the primary and secondary disease, that we might know how far the malig-

nancy of the latter might be attributable to constitutional causes.

Again, with respect to these syphilitic eruptions, they are not invariably presented to us in a state of unity or purity, although the exceptions I believe to be rare. I have myself seen pustules combined with lichen, and Mr. Lawrence has recorded combinations of tubercular and scaly eruptions.

We shall now proceed to the consideration of those eruptions most usually met with by the surgeon, and endeavour to point out the characteristic and distinctive features of each. The period at which these secondary affections present themselves, after the appearance of the primary symptoms, is subject to much variety. The average I consider to be about the sixth or eighth week. Mr. Lawrence lays down the interval to be from the sixth to the twelfth week generally; and he gives two instances in which the secondary symptoms did not make their appearance until the expiration of fourteen months in one of the cases, and of nearly two years in the other. In a subsequent part of the same lecture he has recorded even more extended periods, viz. eight

and ten years.* One of these instances occurred in the case of a gentleman who consulted him in private. On the other hand, M. Ricord asserts that when the disease is left to its natural course, "six months never elapse without syphilitic poisoning manifesting itself."† After all, it is, as Mr. Lawrence remarks, a matter of experience.

The Papular Eruption, which according to Mr. Carmichael follows the simple primary ulcer, presents itself in numerous red papulæ about the chest and shoulders, and subsequently spreads to the face and extremities. Minute vesicles sometimes appear in great abundance on these papulæ, which gradually dry up and terminate in desquamation. More rarely pustules will be seen, which subsequently shrink and form thin brownish scabs that ultimately separate, leaving a smooth cuticular surface of a pale pink hue. As the first eruption fades, which will be towards the third week, fresh crops will make their appearance, and thus successive clusters may follow each other for a considerable period, rendering the disease in some instances most tedious. The follicles

* Lecture 26th, *Lancet*, 1829-30, p. 772.

† Ricord's Letters, by Stapleton.

concerned in the production and growth of the hair may also be affected in this as in other forms of constitutional syphilis, and baldness result. Unlike other syphilitic eruptions, the papular is usually ushered in by well marked febrile disturbance, accompanied by a sense of constriction across the chest and sometimes slight cough ; the throat and tonsils are swollen and erythematous ; and we shall frequently observe a tumid state of the perpendicular chain of cervical glands. In addition to these symptoms, pains in the larger joints, resembling rheumatism, may be complained of.

On perusing some of the descriptions which have recently been published of the papular venereal eruption, I have remarked the total omission of any notice of the vesicles and pustules which are occasionally to be seen on the summits of the papulæ ; and their distinct appearance is so very obvious to the observer, that I am at a loss to explain how they could have been passed over. Willan alludes to the appearance of small vesicles in syphilitic lichen, and to the papulæ in several clusters assuming the pustular form ; and in Wilson's "Portraits of Diseases of the Skin," we find the subject thus noticed :—"The occurrence

of a sero-purulent fluid or pus in the summits of the papules of syphilitic lichen is a common character when the eruption is severe, has lasted for a long time, or has been aggravated by exposure to cold or the undue or injudicious administration of mercury. I have seen instances in which the greater number of the papules were capped by a white summit of pus. When the pus dries up, it forms a scab of some thickness, and occasionally though rarely on the fall of the scab there remains behind a trifling degree of ulceration. When seen in this stage, the eruption might be mistaken for one of a vesicular or pustular kind." The above appearances coincide with what I have myself noticed, with the exception of ulceration, which I do not recollect to have seen in the papular discase, although I can readily understand how such might occur from neglect or mismanagement.

The treatment during the first or febrile stage must be based on antiphlogistic principles. Due attention having been given to the state of the bowels, tartar emetic in minute doses in solution should be administered, to allay febrile action and determine to the skin. Perfect quietude and observance of the rules regarding diet, already

laid down for the first stage of the primary symptoms, must be enjoined until all fever and constitutional excitement have subsided. When this change has taken place, and the eruption has commenced to decline, the scale of diet may be improved, and the iodide of potassium administered in conjunction with sarsaparilla. Vicissitudes of temperature, and especially exposure to night air, should be scrupulously avoided until the eruption has totally disappeared. Should the disease at the period of its decline evince obstinacy or a disposition to recur in isolated clusters, an alterative course of Plummer's pill, as suggested by Mr. Carmichael, will be advisable. The occasional use of warm baths will also be beneficial.

Iritis.—An inflamed condition of the iris is by no means an uncommon symptom in secondary syphilis, and although we usually encounter it in association with the papular eruption, it may also be met with in other forms of the disease. The earliest British authority to whom we are indebted for a description of syphilitic iritis is Mr. John Cunningham Saunders, whose posthumous work, edited by Dr. Farre, was published in 1811. Prior to this, however, the disease was

known in the Vienna school. Mr. Lawrence, in his truly valuable and practical work on Venereal Diseases of the Eye, informs us that the Germans in general have been well acquainted with iritis and its varieties since the appearance of Schmidt's Essay "On Secondary Cataract and Iritis following Cataract Operations,"* which was published in 1801, and from which it appears that this as well as other forms of iritis was known to the author.

Syphilitic iritis generally sets in with well-marked inflammatory symptoms. I recollect, however, one case in which its occurrence was most insidious. There was no complaint on the part of the patient, and its presence was first discovered by the surgeon, who was attracted by a peculiar haziness of the pupil and sluggish condition of the iris. A very remarkable example has been recorded by Mr. Lawrence, in which, although a mass of lymph was diffused on the iris of the right eye, the patient not only had experienced no pain in the organ, but was not even aware that any disease existed.† The symptoms usually commence with more or less indis-

* Ueber Nachstaar und Iritis nach Staar-operationen, 4o.

† Treatise on Venereal Diseases of the Eye, p. 147.

tinctness of vision, and an irritable suffused condition of the eye, with some intolerance of light. On inspecting the pupil, it appears muddy and contracted, and the motions of the iris are sluggish and deficient, or even totally impeded. Its pupillary margin seems puckered and thickened, and its anterior surface somewhat convex. An alteration in its colour is also observable, on comparing it with the opposite iris. This is due to the early effusion of lymph. As the disease advances, an irregularity of the pupil will be noticed, owing to an angular displacement superiorly and towards the nasal side maintained by the adhesive process. The texture of the iris now becomes more altered by the lymphy exudation, which exists in great abundance, assuming various appearances, the most remarkable of which is that of a prominent tubercle, which is generally seen towards the pupillary margin, marking the greater intensity of the inflammation in this direction. These tubercles will sometimes break into shreds or flocculi, which may be either suspended or detached in the anterior chamber. Sometimes they interfere with the pupillary opening. In very acute cases clots of blood have

been observed in the tubercles.* Combined with these symptoms increased intolerance of light is complained of. On turning our attention to the surface of the globe, a vast number of vessels appear under the conjunctiva, taking a parallel course towards the margin of the cornea, and at a slight distance therefrom. The characteristic plexiform zone indicating sclerotic inflammation is also apparent. To these symptoms may be added pain in the eye, extending up the forehead, which is most severe at night, thus presenting a remarkable characteristic symptom of syphilis.

The unfavorable results to be apprehended from this disease, which is an early complication of secondary syphilis, are either impairment or total destruction of vision. The pupil may become partially or completely closed by the adhesive process, and the iris adherent to the posterior surface of the cornea, or to the capsule of the lens behind. A slow process of disorganization may also be set up in the contents of the globe generally, consequent on the extension of the inflammation to these structures ; or the functions of the retina may be damaged by the same occurrence, and the consequent effusion of lymph

† Lawrence on Venereal Diseases of the Eye, p. 135.

into its delicate tissue. Suppuration of the globe has been mentioned by Mr. Carmichael as one of the results of syphilitic iritis ;* I have never seen an instance of such a termination, and I should think it must be very rare, as it has not come under the notice of Mr. Lawrence.†

Treatment.—The objects of our treatment are to subdue inflammatory action, and thereby to arrest the exudation of lymph, and to promote absorption of the effusion which may already have taken place. We therefore commence by abstracting blood generally from the system ; but if the symptoms be not very urgent, cupping over the temples, if expeditiously and skilfully performed, will answer the purpose. I place particular stress on the mode of performing this operation, because if there be any embarrassment or disappointment in obtaining *quickly* the desired quantity of blood, it will prove injurious instead of beneficial. After the bleeding, which can be repeated by means of leeches around the eye, we must have recourse to mercury, the bowels having been freely evacuated in the first

* Clinical Lectures by Carmichael, edited by Gordon, p. 119.

† Lawrence on Venereal Diseases of the Eye, p. 137.

instance. Two grains of calomel with a quarter of a grain of opium may be given every fourth hour, with the view of bringing the system speedily under the influence of that medicine ; or we may administer three grains of hydrargyrus cum creta at the same intervals. Blue pill has also been prescribed in these cases. We shall often succeed in inducing rapid mercurialization by the use of minimum doses at shorter intervals, say a grain of calomel with the eighth of a grain of opium every second hour. Having produced the desired effect on the system, we maintain it by diminished doses repeated less frequently, so long as the local symptoms may direct. During this treatment we cannot be too vigilant in preserving a dilated condition of the pupil, to prevent its permanent contraction and obliteration by adhesion. This we effect by the extract of belladonna liberally applied around the eye. If this be objectionable to the patient, we may direct it in the form of lotion (ʒj. of the fresh extract to ℥viij. of distilled water), to be applied constantly over the eye by means of a fold of lint. This will also serve to allay the frontal pains that so frequently harass the patient. Belladonna in solution may be dropped into the eye to pro-

cure the same object. Mr. Guthrie recommended it to be used in this manner, in the proportion of a drachm and a-half to the ounce of distilled water; and Mr. Lawrence used it similarly in the proportion of a scruple of the extract to the ounce of water. This latter authority has also directed the extract of hyoscyamus to be used in solution of the same strength, and in the same manner.* In both cases the fluids are to be filtered, and two or three drops are to be introduced between the lids. The lauro-cerasus and the datura stramonium also possess the power of producing dilatation of the pupil.* A solution of atropia has been dropped into the eye with the same object. I have myself used it in the form of the nitrate in solution, and have remarked the rapidity with which it acts, as also the length of time two drops of the solution will maintain its peculiar action on the iris. Its visible effect on this structure will be produced in the course of a few minutes, and I have known it not to subside until the expiration of a fortnight or

* According to Mr. Lawrence, the influence of hyoscyamus niger was first noticed by Professor Himly in 1799. The same authority informs us, in reference to the lauro-cerasus, that Conradi saw full dilatation of the pupil produced by the external application of cherry-laurel water.—Page 185, op. cit.

nearly three weeks. I have a case at present under my care which exemplifies this.

Notwithstanding the almost certain and beneficial influence of mercury in subduing this disease, there are constitutional circumstances, such as general delicacy or tendency to pulmonary disease, which may render its use objectionable. In this dilemma we have a most valuable resource in turpentine, as first recommended by my friend Mr. Hugh Carmichael of this city. I have had the pleasure of witnessing the favorable results of this medicine in iritis, and I can testify with confidence as to its powerful influence in controlling the disease. "When the local inflammation is high, and acute pain is present in the eye and side of the head, the abstraction of blood from the temple by cupping, or the more immediate seat of the disease by leeching, may be resorted to." Nevertheless, he has "frequently, when these are very high, relied solely on turpentine mixture, and with the most decided and expeditious relief."*

* "Observations on the Efficacy of Turpentine in the Venereal and other deep-seated Inflammations of the Eye, with someremarks on the influence of that medicine on the system; accompanied by cases." 8vo. Dublin, 1829.

The Pustular Eruption, according to Mr. Carmichael, holds a middle place between lichen and the pustule which terminates in crusts. It has by the same authority been associated or grouped with the second form of primary sore we have described. The eruption presents numerous pustules over the surface of the body, extremities, and face; on this last, however, not so abundantly. The pustules proceed to superficial ulceration or the formation of scabs, and are by no means so tractable as the papular form of disease. Severe pains in the joints and shafts of the bones, particularly distressing at night, are complained of, and slight ulceration of the throat is also to be observed. These symptoms are ushered in by some febrile disturbance.

Treatment.—If a case is presented to us at the first or early stage, our treatment must be conducted for a short period on antiphlogistic prin-

The following is Mr. Carmichael's formula :—

℞. Olei terebinth. rectificat., ℥j.
Vitellum unius ovi tere simul, et adde gradatim
Emulsionis amygdalarum, ℥iv.
Syrupi corticis aurantii, ℥ij.
Spiritûs lavandulæ comp., ʒiv.
Olei cinnamomi guttas, ij. vel iv. ℥j. ter in die st.

ciples. When the febrile symptoms have subsided we may direct the iodide of potassium in conjunction with sarsaparilla, at the same time improving the scale of diet by a reasonable allowance of animal food. If the nocturnal pains be very distressing, ten grains of Dover's powder may be ordered at bed time. Warm baths will assist in the same object, besides correcting the morbid condition of the skin. Mr. Carmichael reports most favorably of baths impregnated with sulphuretted kali, or with nitro-muriatic acid. Should the ulcers resulting from the pustules prove troublesome or tedious, they may be brushed with a weak solution of nitrate of silver, and dressed with some mild cerate. Those in the throat may be treated with the twenty-grain solution, after which gargles containing nitrate of potash, or composed of decoction of barley acidulated with nitro-muriatic acid, may be used.

Should the joints become swollen and acutely painful, the local abstraction of blood by cupping or leeching will be necessary ; after which counter-irritants in the form of liniments, such as the compound camphor liniment, with the tinctura lyttæ, or the linimentum crotonis, may be employed. Repeated small blisters may also

be of service, or brushing the surface with the compound tincture of iodine and acetum lyttæ in equal parts, or with either separately. The tartar emetic ointment has been favorably reported on, but I have not selected it for use in these cases.

Phagedenic Eruption is characterized by symptoms of the most inveterate and destructive nature ; and, whether we regard its local effects on the tissues it involves, or its malignant operations on the system generally, deserves our most careful and serious attention. I do not profess to know what may be the individual opinions of the profession on the question of prognosis or result in this disease ; but so far as my own experience and recollection reach, I do not remember the case of a single individual once the subject of secondary phagedena who entirely recovered and regained his original healthy condition. Life generally is spared, but the unfortunate sufferer remains either a wretched object from the ravages of the disease, or his health is so impaired as to require constant and unremitting care. Many, I know, will say that these symptoms do not arise from syphilis alone, but

that they are due to the abuse of mercurial treatment. Undoubtedly, to this cause may be attributed many of the formidable instances we meet with ; but to receive this proposition as a rule would be totally at variance with experience.

Phagedenic secondary syphilis may assume an acute form complicated with sloughing, and pursue a rapid destructive course ; or it may present a more chronic character, involving in regular succession the tegumentary, fibrous, and osseous structures, continuing even for years, and, unless checked, reducing the wretched sufferer to the last state of exhaustion. It commences with the appearance of pustules, some of which are converted into scabs, whilst others become ulcers that spread by a phagedenic margin, frequently to a considerable extent ; observing generally, though not always, a circular or oval form ; and after a while evincing a disposition to heal at the centre. The ulcers are sometimes covered with thick crusts, presenting either a flattened convex prominence, or a conical protuberance resembling a horn. These latter are seen best marked on the nose, forehead, and other parts of the face. The conical shape may be accounted for by the mode of their increase or formation, which pro-

ceeds from the base, where successive crusts form as the area of the ulcer progressively increases. These elevations have been termed rupial prominences. On the surface of the body they are more flattened, owing to the pressure of the clothing, or other physical causes as the patient lies in bed. Besides these appearances we may have tubercular elevations interspersed in various situations, of a hard, indolent nature, seemingly deep-seated in the skin, and of a pale-red or pinkish hue. These tubercles are, however, so far as my observation goes, usually more conspicuous and numerous when the secondary disease has existed for some time ; in other words, they are rather late symptoms. We shall find them on the face about the extremity of the nose, and also on the trunk towards the shoulders, &c. They sometimes proceed to a slow and tedious ulceration, peculiarly obstinate in yielding to treatment.*

* Although I hesitate to withdraw the student's attention from the real representations of disease which are only to be seen at the bed-side of the patient, I cannot resist the present opportunity of inviting those who have not seen this loathsome disease, to examine the beautiful and faithful delineations of it in Erasmus Wilson's "Portraits of Diseases of the Skin," London, 1855. This magnificent work, evidently the result of extraordinary labour and acute observation, will instruct and interest the most experienced.

Such are the symptoms of this formidable disease as it attacks the skin. They are usually preceded by some feverish excitement and general indisposition. Rest, appetite, and energy are all deficient, indicating in a marked degree the incipient though latent operation of the virulent poison.

The extent to which secondary phagedena may spread if not checked by decided measures is truly alarming. A few years ago, I was asked to see the wife of a tradesman in this city who laboured under the disease contracted from her husband. Almost the entire left side of the face was occupied by one continuous surface of sloughing phagedena, reaching from the angle of the mouth, which it involved, backwards nearly to the ear; and from a little above the base of the jaw to the margin of the orbit. I at once applied the concentrated nitric acid to the surface and margin of the ulcer, and put the patient under the influence of large doses of opium. The iodide of potassium with sarsaparilla were administered, and eventually the ulcer healed; but the contraction of the cicatrix was so great as to reduce the mouth to a fistulous opening about the size of a small quill. Subsequently she went into

Baggot-street Hospital, under the care of my friend Dr. Orr, who enlarged the orifice by a free division of the cicatrix. The operation, I understand, was successful, and the woman left the hospital, but was subsequently carried off, as I am informed, by phthisis. Now the previous history of this case is both interesting and instructive. The husband, on whose statement I have reason to rely, informed me that about three months before marriage he had, without the aid of constitutional treatment, healed by means of caustic a small superficial sore, "about the size of a pin's head." "A hard, reddish, itchy wart," as he called it, remained; two months after marriage his wife was attacked with a few minute ulcers, occupying a space the size of a sixpence, on the labium. A medical gentlemen in Liverpool, where she then was, declared it not to be venereal, and, saying that it was of no consequence, gave her a few powders "like rhubarb," as her husband stated, and also a wash. No effect was produced on the gums, so that we are warranted in assuming the treatment was not mercurial. Seven months after this, the sores remaining still unhealed, she gave birth to a putrid child. Shortly afterward the sores healed, and I have her hus-

band's assurance that no appearance of secondary symptoms occurred for two years, at the expiration of which a number of ulcers appeared about the head and face ; the throat was attacked also. This occurred in Dublin, where she underwent hospital treatment before I saw her. While preparing this work for press, I made it a point to see the husband, who resides out of town, and his statement differs in no respect from what he told me some years ago.

But in no instance does the disease evince a more dangerous or destructive tendency than when it attacks the throat. Commencing posteriorly at the pharynx in a small irritable ulcer surrounded by a dusky redness, it will spread laterally to the tonsils, soft palate, and uvula, involving these parts in one continuous sloughing ulcerated surface. From thence it may proceed upwards towards the nasal cavities, destroying the soft spongy bones, and at a later period invading the bones and cartilages forming the nasal prominence, and causing a sinking or falling in of that part ; or the disease may take a more serious course, by passing towards the larynx, involving the epiglottis and other important structures in that region.

The sufferings sometimes entailed on the unfortunate patient by the disease when it involves the larynx are of so painful a character, that it would be difficult for the surgeon who has once witnessed to forget them. The unceasing restlessness and anxiety ; the constant fits of suffocative dyspnœa produced by the passing of foreign substances into the larynx, when the epiglottis has been destroyed and its valvular protection is lost to that tube ;* the incessant cough ; the expectoration ; the extreme wasting of the system ; and the articulation, feeble and at times scarcely intelligible, are so painfully impressed, that our experience does not require to be multiplied, to renew the recollection of the symptoms and progress of the disease.

Again, this formidable ulceration may extend in depth, involving an important artery, and causing immediate death from hæmorrhage. An illustration of this may be seen in the valuable collection in the museum of the Richmond Surgical Hospital, where the lingual artery was

* In the second edition of Mr. Carmichael's work on Venereal, page 175, we shall find two cases of sudden death from this cause.

opened, and the result proved fatal.* There is also in the same museum a preparation displaying caries of the bodies of two or three cervical vertebræ, consequent on the phagedenic disease in the neighbouring part of the pharynx. Abscesses posterior to the pharynx may form another complication; and, in connexion with this subject, I would refer to a very interesting paper by the late Mr. Carmichael, published in the third volume of the *Transactions of the Association of the College of Physicians.*

Treatment.—When we reflect on the tedious as well as the destructive tendency of this disease, and the distressing influence of its poisonous effects on the system, it must at once occur to us that it should be our special care from the beginning to avoid lowering the general tone of the constitution; and that we cannot, unless under peculiar circumstances, proceed on antiphlogistic principles. In endeavouring to correct the poisoned condition of the blood, we ought to soothe and tranquillize at the same time; whilst, by a judicious selection of diet, we give that support to the patient which hereafter he will

* Carmichael's Lectures, by Gordon, pp. 143-4.

stand so much in need of. Mercury I dismiss altogether from consideration. Its use will tend rather to aggravate than to allay the symptoms of secondary phagedena. Opium and its different preparations will be found powerful agents in counteracting irritation, and checking the destructive progress of the constitutional as well as the primary disease. Sarsaparilla and its compounds, the iodide of potassium, and the mineral acids will each produce their well-known beneficial effects. With respect to the iodide of potassium there cannot be a question as to its very great value in most cases; yet I am disposed to think there are some grounds for the opinion which has been given by Dr. Todd as to the uncertainty of its permanent effects.* Before I had the pleasure of perusing his excellent lectures, I experienced the disappointment he complains of. In one case in particular of secondary phagedena, I directed the iodide, and under its use all the ulcers healed; but the disease reappeared some time after in the same form, and this uncertainty as to its results has induced me frequently to recommend alterative

* Clinical Lectures on Paralysis, &c., by Robert Todd, M.D. page 396.

courses of Plummer's pill, with the iodide of potassium mixture in such other forms of syphilis as I considered mercury likely to benefit.

In our local treatment of the ulcers after the scabs or crusts have separated, which may be promoted by small poultices, we may use zinc ointment or the citrine largely diluted. In some instances solutions of nitrate of silver, sulphate of copper, and other metallic salts will be beneficial. The black wash and also the yellow wash are in deserved reputation as remedies for secondary as well as primary sores. Each of these must, however, be selected according to the judgment of the practitioner. Lotions containing nitric or nitro-muriatic acid have been used with excellent results ; but these we shall find best adapted where the ulcers are fungoid and disposed to bleed. In cases were the sloughing process is going on, and the discharge very fetid, portions of lint moistened with a lotion containing the solution of the chloride of soda, and interposed between the sore and an ordinary linseed-meal poultice, will be of great service in correcting the condition of the parts.

When we consider the formidable nature of the disease as it affects the throat and neighbouring

parts, it must be obvious that the most energetic and decisive means will be necessary to arrest its progress. For this purpose we should apply carefully to the margins of the ulcer the concentrated nitric acid, taking care to have at hand a solution of bicarbonate of potash to neutralize it when it spreads. This we can apply by means of a portion of sponge or lint attached to a piece of whalebone. Besides the nitric acid, the acid nitrate of mercury and the muriate of antimony have been used in these cases. The best mode of applying the muriate, according to the late Mr. Colles, is by means of a piece of lint firmly attached on the eye-end of an aneurism needle, taking care that the application be confined to the ulcer, so as to protect the larynx. Subsequently we may direct gargles containing nitro-muriatic acid or some other detergent.

Local fumigations, with sulpuret of mercury, have also been used when the disease attacks the throat and neighbouring parts. Sometimes, however, the patient will not be able to tolerate the fumes, which may produce a suffocating effect. In such instances we can substitute with advantage hydrargyrus cum creta. In using these fumigations, which constitute a valuable remedy,

but which it is to be recollected are merely intended to act locally, we should take care that mercurialization does not result. They may be used twice or thrice daily.

When the disease affects the nose, which Mr. Carmichael regards as a characteristic symptom of constitutional phagedena, it will be indicated by tenderness on pressure externally, by the peculiar fetid discharge tinged with blood, and the occasional appearance of scabs or crusts from the nares. We treat it by frequent injections of black wash into these cavities, relying chiefly, however, on the constitutional treatment already pointed out. When we can obtain a view of the parts, the careful application of citrine ointment largely diluted to the surface, by means of a camel hair brush, will be most beneficial.

Should the larynx be attacked by the ulceration, and the destruction or exfoliation of the small cartilages of that apparatus be threatened, we should direct counter-irritation to be applied to the neighbourhood of the tube ; small blisters, the application of acetum lyttæ or compound tincture of iodine, have been used for this purpose. It has also been recommended to apply a solution of nitrate of silver (gr. 20 to ℥j. of distilled water)

internally, with the object of acting immediately on the ulcerated surface. Mr. Carmichael reports most favorably of this treatment; he recommends a long bent probe, or metallic bougie, covered with lint moistened in the solution (six to ten grains to the ounce of distilled water), to be passed down.

With the view of affording repose to the diseased organ, by enabling respiration to be carried on through an opening below the affected parts, the operation of tracheotomy has been proposed and successfully performed by the late Mr. Carmichael.* We must not, however, be over sanguine as to the result of this proposition. In one instance I have known the patient to die just as the surgeon had opened into the tube. We shall find some very important observations on this subject by Professor Porter, in his excellent work on Diseases of the Larynx.

Sometimes an abscess will form at the back of the pharynx, producing considerable distress and difficulty of swallowing. It will readily be distinguished by the projection which it forms towards the œsophagus, and the tense, elastic feel which it communicates to the finger of the sur-

* Carmichael's Lectures, edited by Dr. Gordon, pp. 142–143.

geon. Our treatment in this case consists in the early evacuation of the matter. The last instance I witnessed was in the case of a gentleman who had suffered severely from syphilis in its constitutional form, and was much reduced. On inspecting the throat, the posterior wall of the pharynx formed a fulness forwards towards the root of the tongue, and on passing the right index finger into the mouth and against the tumour, the surface felt tense, and afforded a sense of obscure fluctuation. I opened the abscess by means of a sharp-pointed bistoury ; at first the matter did not issue freely, but on passing a probe into the wound the discharge obtained easy exit. For some days the abscess discharged purulent matter of a very fetid character, but ultimately the gentleman did well. When the puncture is made, the patient should be directed to incline the head forward, to prevent the matter passing towards the larynx ; and for the better security against this occurrence, some surgeons, amongst whom may be mentioned the late Mr. Carmichael, use a curved trocar. An abscess in this situation may be connected with disease of the bodies of the cervical vertebræ.

Pains in two or three of the larger joints, par-

ticularly distressing at night, are frequently complained of in secondary phagedena; and in this form of the disease affections of these structures are of a more serious and permanent character than those met with in the papular disease. The synovial membranes are liable to become thickened, and the surrounding fibrous tissues may, as the disease progresses, assume the same state, causing an enlarged condition of the joint. Counter-irritation, with the internal administration of the iodide of potassium and sarsaparilla, will constitute the treatment. Dover's powder at night will be of service in relieving pain.

In concluding these observations on the treatment of constitutional phagedena, I must not omit to mention change of air as a resource of the utmost value, and which ought always to be adopted when practicable. I recollect a case which the late Mr. Carmichael attended with me, shortly after I entered on the profession. The gentleman who was our patient laboured under several large phagedenic ulcers on the surface of the body: the larynx was likewise threatened. In this state he was removed to Dundrum, a short distance from Dublin, and the progress he made under the change was most satisfactory. I have

also known the substitution of milk diet for animal food prove highly beneficial.

Scaly Eruption.—This disease presents in its local characters the same chronic and indolent disposition as the indurated ulcer, which it usually follows. It is not preceded or ushered in by those well-marked constitutional symptoms which we have noted in connexion with other forms of secondary syphilis; yet if we examine attentively, we shall notice that for some time previous to the appearance of the eruption, the patient will seem indisposed, and not enjoying his usual health; his appetite will be defective, his sleep deranged, and his general condition sickly and indifferent. The eruption is usually found best marked about the forehead and back of the neck towards the mastoid processes; also on the shoulders, upper part of the chest, and inguinal regions. When it occurs on the palms of the hands and soles of the feet, where the cuticle is very thick, the scaly character of the eruption is not so well marked as in other situations; the cuticle separates in patches, and not in small thin scales as elsewhere. On the fronts of the wrists, however, we shall frequently have the peculiar well-marked, copper-coloured,

scaly spots, and thus we may have an opportunity of contrasting the two morbid conditions in close proximity to each other. Previous to the appearance of the characteristic eruption the skin does not present a uniform colour ; reddish patches are developed, giving the surface that "mottled aspect" noticed by Hunter. This would seem to be the forerunner, as it were, of the scaly spots ; these spots are at first small, scarcely elevated, and of a reddish-brown or copper colour ; they gradually increase in size, and slight desquamation occurs on their surface. As they increase, they coalesce and form patches, sometimes of large dimensions. In other situations they may remain isolated. As the disease continues, the spots or patches become of a deeper hue ; and we shall remark that as desquamation proceeds, each successive scale becomes thicker, so that eventually formations partaking of the character rather of crusts or scabs are developed, under which ulcers may appear. Besides the general cuticular investment, its more indurated prolongations, as the hair and nails, will in obstinate and tedious cases frequently separate.

Ulceration of the throat is also an important symptom of this form of constitutional syphilis.

It is not preceded by much pain or uneasiness, and is rather of an indolent chronic character. On examination, the tonsil where the disease is generally seated, is red, somewhat swollen, and occupied by an ulcer, which Mr. Hunter has well described as presenting "a fair loss of substance, part being dug out, at it were, from 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."* One or both tonsils may be engaged, and, except during deglutition, but little local distress is complained of. This ulcer may also be seen in other situations, as on the posterior part of the pharynx or the uvula.

In the treatment of the scaly eruption our chief and most effectual resource will be found in mercury, administered with the object of bringing the system under its influence, and in maintaining its action in a modified degree as the symptoms may direct. When the mercury begins to act, the skin will commence gradually to resume its healthy condition, the scales will separate, and, the eruption fading, will eventually disappear. This result will be materially for-

* Hunter's Works, by Palmer, vol. 2, p. 414.

warded by the use of warm baths. Mercurial vapour baths have also been adopted with advantage. Should the case prove tedious, and the skin evince a slow disposition to return to its natural state, the iodide of potassium may be given in conjunction with sarsaparilla. The ulceration of the throat is to be treated by the application of the solid nitrate of silver to the diseased surface, and subsequently detergent gargles may be directed. Our chief reliance, however, must rest on the judicious exhibition of mercury.

In protracted cases of syphilis, the surface of the palate will sometimes present peculiar pale patches of an elevated or raised appearance. They do not observe any particular shape or form. The last instance I saw of it was in a female about forty years old. She had also ulceration of the velum and uvula, which had been preceded by primary disease and secondary eruption, the character of which I was not able to ascertain. I directed a course of the iodide of potassium.

There is a peculiar ulceration arising from constitutional syphilis which sometimes attacks the angle of the mouth. The first instance I recollect was pointed out to me some years ago by Mr. Lawrence in St. Bartholomew's Hospital.

The following is a description extracted from a rough note-book which I kept at the time :— "The skin of part about the angle presents a white, thickened, and elevated appearance, and over its surface are minute spots of ulceration. The tongue is affected with the same disease ; the throat also ; he had a primary sore some weeks before, for which he took mercury. Ordered blue pill night and morning, and half an ounce of essence of sarsaparilla three times daily."

The tongue may also be the seat of syphilitic ulceration, assuming a variety of appearances, as superficial patches, fissures, &c. and not confined to any particular form of the disease. Many of these are of a doubtful character, and probably not of venereal origin. The true syphilitic ulcer, which may occupy the dorsum of the tongue, or its margin near the point, is usually of a circular or oval shape, and is characterised by well-marked induration ; it is indolent and tedious in yielding to treatment. The late Mr. Colles alludes to the difficulty of distinguishing it from the cancerous ulcer, and lays down as the peculiar features of this latter its "stony"

hardness, its clean red surface, and the slightly elevated, narrow ring of considerable hardness surrounding it. In all these ulcerated conditions of the tongue we cannot be too particular, before giving our opinion, in examining the state of the teeth. I have seen ulcers with excessive surrounding induration which have existed for a long time, and baffled all attempts at cure until the surgeon discovered a short stump or spicula of a decayed tooth keeping up the disease. On extraction of the cause the induration subsided, and the ulcer healed in a few days. In the syphilitic ulcer of the tongue, mercury in modified courses, assisted by the iodide of potassium and sarsaparilla, will constitute our constitutional treatment. The diseased surface may occasionally be touched with the solid nitrate of silver.

Pains in the shafts of the bones are a frequent source of complaint in the scaly disease ; they are generally referred to the tibiæ and other superficial bones, and are particularly severe at night. These distressing symptoms will be most effectually treated by the internal exhibition of the iodide of potassium in conjunction with warm baths and Dover's powder at night.

Sarcocele.—Amongst the parts generally affected by syphilis at a remote or late period of the disease, the testicle has been correctly classed, and I am sure that the opinion of every experienced surgeon will coincide with me in stating that there is no disease more tedious or obstinate in resisting treatment if it has been neglected in the earlier stages. As the local condition does not afford us any means by which we can distinguish the syphilitic from the other forms of chronic enlargement of the testis, we have to refer to constitutional symptoms as the only guide to an accurate diagnosis. The testicle may become involved in the phagedenic, pustular, and scaly diseases, and it usually occurs, as I have just stated, at a late period in conjunction with syphilitic affections of the fibrous tissues; hence Sir Astley Cooper was led to think that the tunica albuginea was the part first engaged, and that the disease afterwards extended into the interior fibrous and not the tubular parts of the testis.* Although Sir Astley candidly states that he never had an opportunity of

* Sir Astley Cooper's Observations on the Structure and Diseases of the Testis, 4to. p. 167.

verifying this by dissection, every opinion coming from such a source is worthy of the greatest attention. Sir Astley Cooper was a student, in the full sense of the word, up to the latest period of his life; ardently and devotedly attached to that profession of which he was so eminent a member, he continued to avail himself of the extensive opportunities which were placed at his disposal, by adding to that valuable store of knowledge which he had been accumulating through years of unceasing industry and perseverance. The extraordinary zeal manifested by that great and distinguished surgeon, in the cultivation of surgical science, was known to all who had the privilege of his acquaintance.

Venereal sarcocele, according to Sir Astley Cooper, appears in the great majority of cases in both testicles simultaneously.* In some instance, however, but one will be engaged. The disease commences by a gradual enlargement of the organ, accompanied by little pain. At first the gland maintains its natural pyriform shape, but after some time, and as the disease advances, it becomes globular. As deposits take place into

* Sir Astley Cooper on the Testis, p. 168.

its structure, the whole assumes a fleshy feel; hence the term sarcocele has been applied to it. Notwithstanding its increase, which sometimes is very considerable, the patient will only complain of the uneasiness and distress arising from the weight of the diseased testis. The surface is commonly smooth, yet in some parts it may be more prominent than in other situations. In this chronic state the testicle may remain for a considerable period; or, in consequence of neglect or constitutional causes, a slow process of suppuration may be set up in the organ. This, however, is not of frequent occurrence. The scrotum will then become red and inflamed at a particular part; ulceration will take place, and the contents of the abscess be discharged. Subsequently a fungoid mass will protrude through the ulcerated opening. This diseased growth or granular swelling, as it has been designated by Sir Astley Cooper, is, according to that high authority, composed of granulations arising from the cavity of the abscess, and which, being compressed by the unyielding tunica albuginea, appears through the ulcerated opening just as

occurs in cases of granular swellings of the brain after a wound of that important organ.*

Sir Benjamin Brodie, in a lecture published in the 13th volume of the *London Medical Gazette*, states that this disease "exactly corresponds with that of the common chronic inflammation of the testicle," which he describes in the preceding lecture as presenting, on making a section of the glandular structure of the organ, a quantity of yellow unorganized matter, collected in small masses similar to that which has been so well described by Sir Astley Cooper in the same disease in a more advanced stage, viz. "a general yellowish-white aspect, possessing considerable solidity†. Mr. Hamilton of this city has also described yellow deposits in the syphilitic testicle.‡

Our prospects of success in the treatment of syphilitic sarcocele depend chiefly on the period the case may be brought under our notice. If we see it at an early stage, before the structure of the organ undergoes any material change, we shall succeed in restoring it to its healthy con-

* Sir Astley Cooper on the Testis, p. 97.
† Ibid, p. 98.
‡ Essay on Syphilitic Sarcocele.

dition ; but if the disease has been neglected for a long time, our chances of cure will be most unpromising ; the organ will either persevere in maintaining an indurated state, or a process of disorganization, terminating in total atrophy or destruction of the testis, may set in.

If the case be presented to us at an early stage, and if there be pain or tenderness in the testicle, the application of a few leeches will be beneficial. These may be repeated if necessary ; subsequently we may direct mercurial ointment to be applied to the diseased organ, which is to be constantly supported in a well-adjusted flannel suspensory, which will become impregnated with the mercurial preparation, and thus serve an additional purpose by assisting the continuance of the local treatment. Some surgeons prefer the adoption of a warm poultice to the part after the mercurial application, and I certainly have witnessed very active discutient effects from this mode of proceeding. In addition to these remedies, the internal exhibition of mercury is to be adopted, so as to produce gentle ptyalism, which is to be maintained according to the circumstances of the case, as well as with reference to the general condition of the constitution ; because cases may

occur where, in consequence of the state of the health, it would be neither judicious nor advisable to subject the patient to a mercurial course of treatment. It would, in fact, be scarcely worth incurring such a risk; the result of which on the local disease might, after all, be uncertain. Under such difficulties it is perhaps better to rely on the effects of the iodide of potassium, directing at the same time the local application of mercurial liniment with proper support to the organ. During this treatment the patient must be supported by generous and nutritious diet, and a reasonable allowance of porter or wine.

In concluding this part of my subject, I have pleasure in referring the reader to an admirable work on diseases of the testis by Mr. Curling.

The bones, with their investing fibrous membranes, may also become the seats of certain alterations at a remote stage of the syphilis; and although it is undoubtedly erroneous to attribute these affections solely to the agency of mercury, there can be no question that their occurrence is more frequent when that mineral has been injudiciously employed for primary symptoms. The affections of the osseous and

fibrous tissues may be met with in the pustular, phagedenic, and scaly forms, and generally appear during the latter stages of the eruption, or subsequent to its disappearance. This may be coexistent with disease of the larynx or testicle; hence originated Mr. Hunter's classification of the second order of parts, or those which are engaged at a remote or late period. The effect of the syphilitic poison on the bones and periosteum is to produce thickenings or enlargements, which have been designated

Nodes.—These enlargements may be confined to the periosteum, or they may commence in the bone, and the fibrous membrane become subsequently involved in the suppurative process. This latter form, according to Mr. Carmichael, constitutes the true syphilitic node, and is usually met with in the superficial bones, as the tibia, clavicle, cranium, &c. It is at first solid, hard, indolent, and attended with but little pain. In this condition it may remain stationary for a considerable time, or it may spread to the periosteum, which will be indicated by increased pain and tenderness to the touch; a slow and scanty suppuration will then be gra-

dually established, and a superficial, circumscribed caries will attack the bones. This, as has been observed by the late Mr. Colles, occurs more frequently in nodes affecting the cranial than those seated in other bones. When the disease commences in the periosteum, (and this is the more frequent form), the symptoms assume a greater degree of acuteness, the pain is intense, especially at night, the swelling increases more rapidly, the integument becomes discolored at an earlier period, and suppuration is more speedily established.

Treatment.—Should the symptoms indicate much local inflammatory action, the application of leeches over the diseased part will be advisable; this may be repeated after a short time if necessary. When the more acute symptoms are subdued by these means, we may have recourse to the repeated use of small blisters. In some cases, dressing the blistered surface with mercurial ointment and extract of belladonna has tended to reduce the enlargement, and at the same time to relieve pain.

With respect to the constitutional treatment, there appears to be considerable difference of

opinion amongst surgeons ; some placing their chief reliance on mercury, whilst another section appears to depend on the influence of iodine and its compounds. Mr. Colles, who was a zealous advocate for the former plan, has laid particular stress on the discrimination of those nodes which are peculiarly suited for a decided mercurial course. He has stated that when the disease is seated in the centre or hard part of the bone, pretty active and full doses of mercury are required for the cure ; but when it occurs in the cancellated structure, that agent must be used in moderate doses and with much judgment. This is an important distinction, and probably may be accounted for by the circumstance of the cancellated structure of the bone yielding to the disease being indicative of a strumous taint, which would forbid the too liberal exhibition of the agent in question. The powerful influence of iodine and its compounds has been upheld by very high authority. The late Mr. Carmichael has reported most favorably of its effects ; at the same time he was evidently aware of its liability to fail, as he has provided for such an event by recommending us to have recourse to mercury should the

disease remain unaffected by the iodine.* So far as my own individual experience goes, I certainly have witnessed the best results from both plans ; but it requires some attention before we select either. If mercury had been used previously for the primary symptoms, and to any great extent, I certainly should prefer treatment with the iodide of potassium and sarsaparilla ; but if the early treatment had been non-mercurial, or on the modified mercurial plan, I would select a course of calomel and opium, from which I have witnessed such successful results.

Should the above means fail in affording relief, and the local distension and pain continue unabated, a free division of the periosteum must be resorted to. I have not noticed the evil consequences said to result from this practice.

Intracranial Nodes.—The bones entering into the composition of the cranial cavity and the dura mater, or fibrous membrane lining their inner surface, may likewise be the seat of syphilitc disease, giving origin to cerebral symptoms of a most alarming nature, which, if not recognised at an early period, will eventuate in permanent dis-

* Vide Carmichael's Lectures, edited by Gordon, p. 125.

ease of the brain itself. Considerable light has been thrown on this part of our inquiry by Dr. Todd of London, who has offered some most valuable remarks on the pathology and treatment of the disease ;* and the profession is also deeply indebted to Dr. Reid of Belfast, who has published in the 13th volume of the *Dublin Quarterly Journal of Medical Science* a very interesting and instructive paper, detailing the symptoms of the disease, and the triumphant success of the means adopted for their removal. In this contribution three cases are detailed, from which we learn that at a remote period or stage of syphilis, paralytic symptoms, with defective intelligence and memory, impaired vision, difficulty of articulation, and epileptic seizures may set in, and ultimately disappear under properly directed treatment. The means chiefly relied on by Dr. Reid consisted in shaving the head, extensive blistering of that part, and mercury. In one of his cases venesection and active purgatives with tartar emetic were had recourse to.

In Dr. Todd's cases the symptoms were equally

* Clinical Lectures on Paralysis, certain Diseases of the Brain and other affections of the Nervous System, by Dr. Todd ; Lecture 17th, 2nd Edition.

well marked ; short alternating courses of iodine and mercury, sarsaparilla, and cod liver oil appear to have been the chief means relied on by him. Two opportunities were presented to him to verify his diagnoses, which were chiefly founded on the history of the cases and general symptoms. In one case, amongst other morbid appearances which have been minutely described, the dura mater was at one part "three or four times its natural thickness," and underneath, "between the layers of the arachnoid, there were two large masses of a yellow colour, like concrete pus, opposite to which were corresponding depressions or concavities on the surface of the cerebral hemisphere ;" here the brain "was slightly softened and redder than was natural," &c.* In the second case, besides other diseased appearances, "the bone in the right temporal region was found much thickened, and a small osseous spiculum projected from the inner surface of the left temporal bone," &c.†

Syphilitic Deafness, according to Mr. Harvey, in his work "On the Ear in Health and Disease," generally attacks the tympanum in the form of

* Todd's Lectures, p. 391.
† Todd's Lectures, p. 401.

inflammation of its mucous lining, to which it has extended through the medium of the Eustachian passage communicating the disease from the throat. It is very frequently mistaken for nervous deafness. In the *Lancet* for January 30, 1858, the following very interesting case of this disease is detailed as originating in the same manner :—

"A young man, aged twenty years, was admitted into the medical ward of St. Bartholomew's Hospital on the 8th inst., with profuse and well-marked syphilitic eruptions over his whole body. He is a paper-stainer, and contracted syphilis two years ago, from which he recovered. He lately had an attack of rheumatism, and the secondary eruption appeared; and, being very ill, he was taken into the hospital under Dr. Farre's care. He was in the hospital but two days when he became completely deaf in both ears. A blister was applied to the back of the right ear, and on the 15th of January he could hear a little with that ear. He was at the same time put upon five grains of the iodide of potassium in peppermint water three times a day." Under this treatment it is stated, according to the last report, that the hearing had improved in the

right ear, but not the least in the left. Further on it is remarked in the clinical record—"We have no doubt that in Dr. Farre's patient it was in this way (as explained by Dr. Harvey) the disease originated, as there is throat disease at the present moment."

In the clinical record from which I extract, allusion is made to the subsequent closure of the Eustachian tube after the throat disease is cured, and which it appears is, according to Mr. Harvey's views, one of the few cases in which some benefit might be expected from puncture of the membrane of the tympanum as a dernier ressort. I have no observation to offer on this from my own experience.

In the course of the foregoing pages I have repeatedly alluded to the use of the iodide of potassium as a remedy in primary as well as constitutional syphilis; and although in some instances it unquestionably has failed to produce permanent beneficial effects, there can be little doubt as to its general value as a therapeutic agent. Like mercury, however, it is liable to induce certain untoward consequences, which, for obvious reasons, the practitioner should bear in mind. In some instances the iodide of potas-

sium will produce very distressing effects on the Schneiderian membrane, and the prolongation of its mucous layer into the frontal cells, indicated by severe pain in the forehead, and copious watery secretion from the nose. In other instances the bronchial mucous membrane will be the seat of irritation. Ptyalism may be noted as another morbid result from the use of the iodide, and also gastro-enteric symptoms. Dr. Christison is of opinion that the train of symptoms constituting iodism may be induced by the same cause. I have not seen an instance of this.

Syphilization.—Considerable attention has of late been attracted to the treatment of syphilis by the method of syphilization, a state first described by M. Auzias Turenne as induced in the system by a series of successive inoculations with syphilitic virus, by which complete immunity from the effects of the poison is supposed to be secured to the individual operated on, just as vaccination provides against variolous infection. In the *Dublin Quarterly Journal of Medical Science* for February, 1857, we learn that Dr. Neligan of this city, during a visit paid by him to Stockholm in the course of the previous

autumn, "saw under the care of his friend Professor Malmsten, in the Seraphim Hospital, some cases of secondary syphilis which had been cured, and some which were progressing towards cure, by the syphilization treatment, after having obstinately resisted all other therapeutic means;" and this valuable evidence is followed by a very interesting essay on the subject by Wilhelm Boeck, Professor of Medicine in the University of Norway, who had suggested the plan to Professor Malmsten. Professor Boeck (having informed us that M. Sperino being made acquainted with the observations of M. Auzias, immediately adopted and realized the idea of curing syphilis by a continued inoculation with the virus) proceeds to state, in reference to the efficacy of syphilization, that "the fact has been proved in more than a hundred persons." He also informs us that the "immunity takes place gradually, the ulcers being smaller after each inoculation, until at length the pustules are quite abortive, or the result is an absolutely negative one." The professor gives us distinctly to understand that he considers syphilization to be allowable only to "cure syphilis," stating at the same time that the author (M. Auzias) at first meant to use it

as a prophylactic, but had abandoned this "eccentric idea a long time." Dr. Boeck uses it only in constitutional syphilis, and never in primary disease, because he could not "predicate with certainty if all those who get primary syphilis will get constitutional disease."

In the same Journal for the following November we have a notice of the report of a "Discussion in the Norwegian Medical Society of Christiania on the subject of syphilization," which we learn occupied that body during eight meetings, on which occasions Professor Faye, who originated the discussions, and Professor Boeck, were the prominent speakers; and we are also presented with a review of "Investigations by Professor Faye concerning the inoculations of the matter of cow-pock and of chancre, with a view to establish the conditions of immunity and their consequences." His experiments, however, it would appear, have rather tended to shake his confidence in the efficacy of syphilization. As I have not devoted any attention to the subject, I have merely to refer the reader to the Journal already quoted, for further information on the question involved in Professor Boeck's essay, in which the mode of producing syphilization is thus

detailed :—" Without any other preparation than a bath, or in my private practice even without this, I apply on each thigh and on each arm, or on the sides only, three inoculations in every one of those places, with matter taken from a primary ulcer, or from an artificially produced one in a person who has been syphilized. I choose the first-named places for those who are lying in the hospital ; but I inoculate the sides of those who during syphilization are going out attending to their business. However, I must add that I never confine my inoculations exclusively to the sides. If they do not prove effectual there, I apply them on the thighs, on which we shall almost always find the ulcers to be larger, deeper, and of a longer duration ; therefore I think this place the best, and never fail inoculating there. Every third day I inoculate anew. As long as the last inoculations produce pustules, I take the matter from these. In some cases I have always tried to take the virus from the first-made inoculation, thinking to find there the strongest matter, and thereby, perhaps, be able to achieve the cure in less time. But the cases in which the treatment has been accomplished in this manner are so few, that I should not venture to

draw deductions from them." Further on, we are informed that the treatment by syphilization of those who have not been mercurialized generally requires three or four months. In cases where mercury has been used, the method is reported not to act "with the same mathematical certainty."

From the manner in which Professor Boeck's Essay is introduced to us, it is obvious the profession is much indebted to Dr. Neligan.

CHAPTER V.

SYPHILIS IN INFANTS.

THE study of syphilis as it affects new-born infants has of late years attracted considerable attention on the part of the profession ; and when we reflect on the extreme importance of the subject, not only as it relates to the health, but also to the welfare and happiness of the community, we shall at once understand the earnest anxiety and zeal which have been manifested in the investigation of the remarkable and oftentimes mysterious phenomena connected with it.

In the course of these observations I have already alluded to the infectious character of constitutional syphilis, and I have stated my reasons for adopting the affirmative of the question. In support of this view I have adduced some high authorities, and amongst them the late Mr. Colles, who, in his admirable chapter on Syphilis in Infants, has brought forward some

remarkable instances to corroborate his opinions. I have also incidentally noticed Mr. Hey's instructive Letter on Syphilitic Infection of the Fœtus in Utero, addressed to Mr. Pearson, published in the 7th volume of the *Medico-Chirurgical Transactions*, and read before the Society on the 15th of June, 1816; and I have referred to the able essays of Professor Porter. To these productions I would again call particular attention, as affording most valuable information on the subject of this chapter; and I only regret that my limits deny me the pleasure of entering more fully on their views.

The infant may be diseased by the syphilitic poison in different ways or through different channels. The virus may be conveyed to the fœtus in utero through the medium of the circulation; and this would appear to be the most usual mode of contamination. Again, the disease may be contracted during parturition by the infant passing through the vagina affected with primary ulcers; and, lastly, the child may receive the infection from a nurse labouring under syphilitic ulceration of the nipple, or in consequence of her milk partaking of the constitutional disorder. This latter position, I am

aware, will be denied by many, but I can see no reason for doubting its probability.

Syphilis may be manifested in the infant either at its birth, or, as is most generally the case, some days or weeks subsequently. The child may be born at the natural period, full-grown and healthy to all appearance, when, after some time, the symptoms of disease will be manifest. It will then become weakly, emaciated, and peevish ; several spots of a copper colour will appear on the surface, especially about the buttocks, thighs, and genital organs. Fissures and superficial ulcerations will be seen around the anus, and the opposing surfaces of the skin will present a raw, irritable, and sometimes ulcerated condition. As the disease progresses, the emaaiation increases to a pitiable degree ; the skin becomes wrinkled and loose, as it were, on the frame ; the lips and angles of the mouth are occupied by numerous rhagades and minute ulcers ; and the little patient preserves a contracted and puckered state of mouth, instinctively, I should imagine, to avoid the acute pain and suffering which any stretching of the diseased skin would entail. If we examine the interior of the mouth, the mucous membrane will be

found studded with minute aphthæ, which occasion additional distress to the infant on each attempt to suck or swallow ; and doubtless this inability to feed in some cases is an additional cause of the continued and increasing emaciation, and of the incessant irritability and peevishness of the child. These aphthæ also extend to the nose, as indicated by the fetid sanious discharge from the nares, and the perpetual snuffling. Besides these symptoms, the larynx also is affected, as evidenced by the peculiar, shrill, and at times hoarse cry of the infant. If the case be neglected and left without treatment, the emaciation and other symptoms will increase, several points of ulceration will appear on the body, and the child will ultimately sink under exhaustion.

Although the eruption usually occupies the situations I have pointed out, this is not invariably the case. My friend Dr. Athill kindly called my attention a short time ago to an infant born in the eighth month of pregnancy, which was affected with the disease. In that instance "there was not a sign of eruption on the face, trunk, or extremities, excepting on the hands and feet, which were covered, it should be observed, with copper-coloured scaly patches. The scales

were larger, thicker, and darker than usual ; and it was remarkable how well-defined and abruptly the disease terminated at the wrists and ankles. No appearance of eruption presented about the anus ; the infant had a squeaking shrill cry, and was wretchedly emaciated. About seven weeks before pregnancy, the mother of the infant applied at the dispensary in consequence of a primary sore and an eruption of a copper colour. I have not been able to arrive at the treatment adopted on that occasion.

Sometimes, but very rarely, iritis will form a symptom of syphilis in infants. I have never seen an instance of it, but my friend Mr. Lawrence has given the particulars of two cases, the only examples of it that ever occurred to him. In one of them (Case XXIX.) " there were excoriations and ulcerations round the anus. The iris had lost its brilliancy, and become dark-coloured ; the pupil was slightly contracted, and there was some redness of the sclerotica." On the other case he was " consulted by letter from the country ; the father had had primary venereal sores before marriage. In a few weeks after birth, the child had an eruption all over the body, wasted, and seemed on the point of dying. It got well

under the use of mercury in very small quantities. In a few weeks more, severe inflammation of the eyes came on, mercury was employed in the same manner, the inflammation was arrested, but the child remained blind." Mr. Lawrence further adds that he saw it some weeks after; "both pupils were fixed and moderately contracted; an opaque body, which was not a cataract, was seen behind one; the other was clear. Both eyes were blind."*

In the excellent treatise on the Diseases of Children by Drs. Evanson and Maunsell, "a well-marked case of syphilitic iritis in a child about a year old is recorded. The father had at the time tubercular eruption."†

It is remarkable that syphilis in infants rarely presents any affection of the osseous system. Mr. Colles never saw an instance of it. One case is recorded by Dr. Charles West, in an infant of a few months old, whose bony palate was destroyed.‡ This may probably be accounted for by the fact, that unless the cure be accomplished, death occurs before the tertiary symptoms have time to appear.

* Lawrence on the Venereal Diseases of the Eye, pp. 163-4.

† Maunsell and Evanson on Diseases of Children, p. 454.

‡ On Diseases of Infancy and Childhood, p. 449.

Treatment.—Notwithstanding the opinions that have been given to the contrary, I quite agree with Mr. Acton, who states in his admirable work on Venereal Diseases, that the prognosis is favorable provided the mothers can and will take care of their children.* In the treatment of the disease our chief reliance rests on mercury, which may be administered either directly to the little patient, or to it through the medium of the nurse. According to Mr. Colles the cure, if not more certain, will be more speedy by subjecting both nurse and infant to the use of mercury.† If we decide on treating the child alone, (which has been my usual practice), three grains of hydrargyrus cum creta may be given morning and evening, or two grains of the same preparation may be administered three times daily. If the mercury affect the bowels, a minute quantity of Dover's powder may be added to each dose. As has been judiciously laid down by Drs. Evanson and Maunsell, this treatment, under which the infant will gain flesh, should be continued for two or three weeks after every symptom has disappeared, as a precaution against a recurrence of the disease;

* Acton on Venereal Diseases, p. 408.

† Colles on Venereal, p. 277.

each of which will, however, be slighter than the last.* The sores on the child may be dressed with black wash, or weak solutions of nitrate of silver.

Although the influence of syphilis in causing abortion and premature labour about the seventh month of pregnancy is now very generally admitted, there are some authorities of considerable experience who think that this view has been greatly exaggerated; and that although the disease may produce abortion, the occurrence is by no means so frequent as has been generally alleged.† Mr. Acton, for instance, informs us that at the venereal hospitals in Paris "a great many pregnant prostitutes passed under his notice, labouring under secondary symptoms, and he did not remark that abortions were more frequent at the seventh month than at any other period." He then refers to the work of Parent Duchatelet, in which abortions are mentioned "frequently" to take place, "but syphilis is not the cause; unnatural means, excesses of all kinds,

* Treatise on Diseases of Children, by Drs. Maunsell and Evanson, pp. 454-6.

† M. Trousseau and Laségne even go so far as to deny that syphilis ever appears in infants at birth.

abuse of the sexual organs, are there stated as the exciting causes."* From the views here laid down by Mr. Acton we must entirely dissent, so directly opposed are they to the experience of our highest authorities in this country. No doubt erroneous opinions may be formed in some of these cases, in which we cannot be too cautious in forming and stating our views. Circumstances may lead us to suspect a desire on the part of those chiefly interested to deceive us; and if under such an impression we place too much reliance on the mere facts of the miscarriage, and the infant presenting a decomposed condition and an extensively separated cuticle, &c. we may fall into grievous error. I know from experienced men, that these mistakes have occurred, that the happiness of families has been imperilled by them, and therefore I do not consider these remarks irrelevant or misplaced.

To the doubts expressed by Mr. Acton on this important subject it would appear we are mainly indebted for the very interesting paper published by Dr. Campbell of Edinburgh, in the *Northern Journal of Medicine* for May, 1844, in which

* Acton on Venereal Diseases, p. 407.

the author has detailed two remarkable cases, the first of which is peculiarly worthy of note. It occurred in the year 1824. The lady was the wife of a young physician ; she had three premature confinements about the seventh month ; two of the children were alive, but died in the course of a very few hours ; the third was dead and putrid. On enquiry it appeared that six months previous to marriage the husband contracted chancre ; after employing the usual means, and considering the disease cured, he married. "At the period of this investigation there was not in either parents the least evidence of syphilis in any form." Both husband and wife subsequently underwent mercurial treatment, and a full-grown healthy child was the result, at the ninth month. This case I find has been quoted by Dr. Whitehead, to whose excellent work on hereditary diseases I would direct particular attention.

But long before the occurrence of Dr. Campbell's case, the letter of Mr. Hey appeared. It was the last professional publication of that distinguished surgeon and truly excellent man,*

* Vide Life of William Hey, F. R. S. by John Pearson. Published in 1822.

and is therefore deserving of special notice. An instance of abortion and premature confinement about the seventh month is there detailed in the remarkable case of a Mrs. B. It appears this lady's breasts were twice drawn by a woman affected with ulcers at the angles of the mouth, which she also contracted from a syphilitic woman whose breasts she had drawn. In about three or four weeks afterwards, Mrs. B—— was attacked with swelling of the axillary glands and sore throat, which were pronounced to be venereal. She was submitted to treatment for five months, during which time she became pregnant, and at the end of the seventh month miscarried of a dead child. No disease in the vagina or neighbouring parts was observed by Mr. Hey, who attended her during labour ; previous to this she had three healthy children. Subsequent to this miscarriage Mrs. B—— had two confinements and the children manifested syphilitic symptoms some weeks after birth, but were cured by mercury. Mr. Hey thus lays down the conclusion he had arrived at, "This progressive communication of disease to the fœtus in utero has taken place not only where the mother has received the infection in the ordinary way, but also

where the organs of generation have remained unaffected both in husband and wife." Since Mr. Hey's letter numerous authorities have appeared, more than sufficient to controvert Mr. Acton's position.

Although the fœtus in utero is generally supposed to be contaminated through the medium of the mother, it has been asserted on the authority of West,* Acton,† and others, that the disease may be contracted from a diseased father and the mother escape all contamination.

In the year 1821 two very important papers appeared in the fourth volume of the *Transactions of the College of Physicians in Ireland;* the first entitled "Observations on a species of Premature Labour to which Pregnant Women are not unfrequently liable," by an "Experienced Physician." The author states that his object was "to excite attention and collect observations in regard to a species of miscarriage to which his attention had been called for many years;" and he gives us to understand that "in not a few cases he suspected a syphilitic taint was contracted from the husband." In reply to this, the

* On Diseases of Infancy and Childhood, p. 448.

† On Diseases of the Organs of Generation, p. 624.

second paper or "Letter" appeared from the late Dr. Beatty. In this valuable and instructive communication the author states that the subject had attracted his attention as early as the year 1789, when he delivered a woman of a putrid child in the eighth month of pregnancy, which had been the case with several of her children. On enquiry into the health of the parents, and suspecting a venereal taint to be the cause, he proposed to them the use of mercury, and separate beds during the course. The result was a living boy in due time. Dr. Beatty details similar cases with the same success.

Notwithstanding the strong evidence adduced by Beatty, Campbell, Egan, and others in favor of this plan of treatment, doubts have been raised, especially by some French authorities, on the subject. Mr. Carmichael, who considers it very questionable that those premature confinements were the result of syphilis, admits the value of the fact that mercury prevented their recurrence; yet he has known it to fail, and such, he states, has also been the experience of other practitioners. At the same time, he observes that "if, under the circumstances adverted to, any symptoms of a venereal taint present on

either of the parents," he would "highly approve of a mercurial course."*

Cases have been recorded in which the infant was supposed to have been cured in utero; but as has been already proposed by Dr. Churchill in his excellent work on Diseases of Children, how are we to know that it was diseased? M. Bertin states "that diseased pregnant women more frequently miscarry when they have not been submitted to any treatment, than when they have been treated during pregnancy,"† and Dr. Egan gives four cases "in which," he says, "there was conclusive evidence of disease" (abortion having previously taken place in two); and he succeeded in effecting ptyalism after the fifth month of utero-gestation, and healthy children were born.‡ The following has been laid down by Mr. John Pearson, "If a woman suffer from the secondary symptoms of syphilis during her pregnancy, the power of communicating the disease to her child cannot be influenced by the mode in which she received the infection, nor by the part to which the contagious matter was

* Carmichael's Lectures, by Gordon, p. 165.

† Traité de la Maladie Vénérienne chez Enfants Nouveaunés, Paris, 1810.

‡ Egan on Syphilis, p. 287.

first applied ; neither will the cure of the woman by mercury during utero-gestation protect the fœtus from the agency of the venereal poison."*

It usually occurs that when a series of miscarriages and births of children, who subsequently display syphilitic symptoms, takes place in the instance of the same mother, each case presents the disease in a more mitigated form than the previous one. This, however, is not always so. We have reason even to suppose that in the course of these accidents an interruption, as it were, may take place in the manifestation of these morbid phenomena, and the disease reappear at subsequent births without any assignable cause. The following case will illustrate this ; I found it amongst the papers of my late father, whose long and distinguished professional career does not require my feeble eulogy. The case is also interesting as setting forth the views of a late most eminent surgeon who was called in for consultation :—

"In the summer of 1805 I attended during her confinement the wife of a respectable shop-

* Life of William Hey, by John Pearson, Part I. Appendix 2, p. 55. London, 1822.

keeper, when she gave birth to a full-grown healthy looking child, which appeared to thrive on the mother's nursing for ten or eleven days. I then ceased to attend, leaving both in good health apparently. In a few days after, the nursetender called to inform me that the lady became very unhappy, as the child had been very ill since my last visit with a bowel complaint and 'an ugly red gum,' as she called it. I was greatly struck with the appearance of the child. I had left it a very few days before a healthy, ruddy, and well-nourished child, as I thought, and now found it greatly emaciated, pale, languid, with a hoarse squeaking cry, and very restless. I observed also copper-coloured blotches over the parts about the genitals. Apprehending that those appearances were from a syphilitic taint, I requested that a surgeon should be immediately called in to see the child, and Mr. Solomon Richards on seeing the case confirmed my suspicions. The poor little sufferer died in a few days. The father told me that he had syphilis two years before marriage ; but having undergone a course of mercury, he was pronounced sound by a skilful surgeon. I requested ano-

ther meeting with Mr. Richards, to take into consideration the propriety of submitting the parties to a course of mercury. Mr. Richards, however, being unable to detect any trace of syphilis in either, objected to mercury, saying that 'latent syphilis,' as he termed it, would not be eradicated by mercury. The lady soon became pregnant again, and about the seventh month was seized with labour without any apparent cause, and was delivered of a putrid child. On this occasion I urged the necessity of a mercurial course, but it was resisted on the authority of Mr. Richards, who had previously stated that he had known some cases of the kind, in which the venereal taint had worn itself out, and the parents afterwards had healthy children, without the aid of medicine ; and his prediction was verified in this case, for the lady, although she gave birth to four pocky children, had the good fortune to bring forth five healthy ones. Of nine pregnancies, the result of the first and second I have mentioned ; the third was an early miscarriage ; the fourth and fifth arrived at the full time ; the infants were born alive, and never exhibited any appearance of disease ; the sixth was delivered

dead and putrid in the country at the sixth or seventh month ; the seventh, eighth, and ninth were born alive, and went through the periods of infancy and boyhood free from any trace of disease."*

* Posthumous Paper of the late Samuel Bell Labatt, M.D., formerly Master of, and subsequently Consulting Physician to, the Lying-in Hospital, Great Britain-street, Dublin.

CHAPTER VI.

GONORRHŒA.

If we analyse the opinions of the leading authorities on the subject of venereal poisons, we are presented with three distinct schools, the first, (amongst whom may be enumerated Sawrey, Adams, Swediaur, Vigaroux, Lagneau, and others) supporting the views of one of the most distinguished philosophers our profession ever produced ;* the second totally at variance with those views, which have been opposed by the experiments of Benjamin Bell, and subsequently by those of M. Ricord ; and, lastly, the third school following the peculiar opinions of Mr. Carmichael, who, in addition to the doctrine of plurality of poisons, maintains that a *modified* form of primary sore with a subsequent train of secondary symptoms may result from the gonor-

* John Hunter.

rhœal virus ; in proof of which he has adduced the observations of Mr. Evans.

Mr. Hunter advocated the identity of gonorrhœal and syphilitic poisons, and explained the different effects of the poison by the difference in the mode of action of the parts, the gonorrhœa proceeding from a secreting, and the chancre forming on a non-secreting surface. He experimented thus :—

"Two punctures were made on the penis with a lancet dipped in venereal matter from a gonorrhœa ; one puncture was on the glans, and the other on the prepuce," this was done on Friday ; on the Sunday following an itching was complained of, which lasted till Tuesday. In the meantime there seemed to be "a greater redness and moisture than usual" of the parts. On the Tuesday morning the part of the prepuce that was inoculated was "redder, thickened," and presented "a speck." In a week after this speck "had increased, and discharged some matter ;" there also "seemed to be a little pouting of the lips of the urethra, also a sensation in making water, so that a discharge was expected." The speck was touched with lunar caustic, and afterwards dressed with calomel ointment. On Satur-

day a slough separated, and the part was again cauterized, and a second slough formed, and separated on the following Monday. The night preceding, the glans felt itchy, and on Tuesday "a white speck" was seen where the puncture had been made. This was found to be a pimple full of yellow matter ; it was treated as the speck on the prepuce. On Wednesday the sore on the prepuce was yellow, and touched with caustic. On Friday both sloughs came away, and the sore on the prepuce looked red, and its basis not so hard. On Saturday it was touched again, and allowed to heal, and "a dent" was left in the glans, which filled up in some months, retaining "a bluish cast" for some time. Four months afterwards the chancre on the prepuce broke out again and was healed. This occurred several times. The ulcer on the glans remained healed. Along with these ulcers a bubo appeared in the right groin, which was reduced in part by mercurial inunction, it not being intended to effect a complete cure, but to test the remedy. The gland now began to swell again ; mercurial inunction was adopted again until the complete reduction was accomplished, but not with the

object of arresting the future contamination of the constitution.

Two months after this, ulceration of the tonsils set in ; mercurial inunctions were adopted in the same locality as before, until this was "skinned over," but not so long "as to destroy the poison." After the lapse of three months "copper-coloured blotches" broke out on the skin, and the ulceration of the tonsil re-appeared. Mercury was again adopted, not to cure but "to palliate ;" and on its being dispensed with, the disease returned in the same parts. Finally, that agent was administered "in a sufficient quantity and for a proper time to complete the cure."

Notwithstanding the doubts that have been raised by Ricord,* Carmichael,† Egan,‡ and others, I cannot but view the train of symptoms just detailed as syphilitic. The spontaneous healing of the ulcer, which has been noticed by the first and last of these authorities, is no argument against this view, as we know that with the aid of caustic, which Mr. Hunter used,

* Traité des Maladies Vénériennes, p. 105 et seq.

† Lectures by Gordon, p. 35.

‡ Egan on Syphilitic Disease, p. 13.

syphilitic ulcers can be speedily "skinned over."* It is true, as stated by the above authors, fresh infection may have been contracted during the three years the experiment was said to have occupied. But, independent of this, the experiment itself appears to me unsatisfactory, inasmuch as we have no history whatever of the symptoms and result of the disease in the person from whom the virus was taken for the inoculation, so as to satisfy us that his case was not of that complicated form in which a chancre exists in the urethra, and which is capable of giving rise to a train of constitutional symptoms on inoculation. The negative results of experiments with gonorrhœal matter, as reported by others, strongly incline me to this view.

In direct opposition to the opinions of Mr. Hunter, the results of the experiments recorded by Mr. Benjamin Bell appear. These, I may remark, were instituted by two medical students, one of whom took matter on the point of a probe from a chancre on the glans penis, before any application was made to it, and introduced it into the urethra. About the eighth day a chancre

* Hunter on Venereal, by Joseph Adams, 2nd edition, p. 451.

appeared there, followed by a second. A few days after, a bubo appeared in each groin. In this experiment no urethral discharge occurred during the whole course of the disease. The buboes did not suppurate. The symptoms disappeared under a mercurial course.

In the next experiment the matter of gonorrhœa was introduced between the prepuce and the glans. On the second day, slight inflammation succeeded by a discharge took place, and disappeared after two or three days.

Again, small dossils of lint were taken by two young gentlemen, medical students, neither of whom had ever laboured under gonorrhœa or syphilis, and soaked in gonorrhœal matter taken from patients who had never used mercury. Each of the students then introduced the lint thus saturated between his prepuce and glans, and left it in that position for twenty-four hours. In one, acute spurious gonorrhœa with paraphymosis, but no chancre, occurred; in the other, "the matter finding access to the urethra," genuine gonorrhœa of a severe type resulted. Experiments with gonorrhœal and syphilitic matter were repeated by the first of these gentlemen,

and with consequences similar to those already detailed.

But it is to the valuable and extensive researches of M. Ricord we are chiefly indebted for evidence on this important subject. I shall not enter into the particulars of the experiments instituted by this distinguished authority, but simply enumerate the conclusions arrived at by him, while at the same time I would earnestly recommend the student to study the original, by which he may more clearly comprehend the full force and importance of the author's views. In his Traité des Maladies Vénériennes we are presented with a detailed account of the experiments, from which the following deductions as to the distinct characters of the two poisons have been drawn.

1. Under no circumstances does the matter of gonorrhœa produce chancre; like any irritating fluid, it can excoriate (elle peut excorier), but it never can produce a specific ulcer (mais jamais y produire d'ulcere specifique).

2. The pus of a chancre only produces chancre.

3. Where the pus of a chancre introduced into the urethra produces a blennorhagia, one of

two results has followed; the matter so introduced has been acting either as a simple irritant, or it has produced the specific ulcer which, on account of its situation, causes the symptoms of blennorhagia. M. Ricord terms this le chancre larvé.

Lastly, we shall refer to the doctrines of those who constitute the third school, and who, although they deny the identity of the poisons of gonorrhœa and the genuine chancre, as maintained by Hunter, yet assert that a mild form of primary syphilis, followed by a train of constitutional symptoms, may result from the gonorrhœal poison. This doctrine has been ably advocated by the late Mr. Carmichael, who, with the numerous facts that occurred in his own extensive field for observation, has also brought forward the cases and experiments published by Mr. Evans.

In Mr. Evans' first case we have an instance in which two gentlemen had connexion with the same girl, the one shortly after the other; one of them contracted the simple ulcer termed by him venerola vulgaris, and the other gonorrhœa. An examination of the girl discovered only some discharge but no ulceration. In the

second case we have both venerola vulgaris and gonorrhœa taking place in the same gentleman at different periods. The latter constituted the first attack, and the former appeared subsequently. This gentleman had only cohabited with one girl, who was examined; a discharge but no ulceration was discovered.

But the case to which Mr. Evans attaches peculiar value, is that of an officer who contracted gonorrhœa, and embarked for foreign station. After being at sea for six weeks the gonorrhœa disappeared, but the next day a small ulcer appeared, which proved to be venerola vulgaris. The ulcer, Mr. Evans assumed, must have been the consequence of the application of the gonorrhœal matter; for he could not admit that the venerolic poison lay dormant for seven or eight weeks. Mr. Hunter's experience, however, as we have shown, leads to a different conclusion.

In addition to the above, Mr. Evans gives three cases in which the males exhibited the same description of ulcers on the genitals; and, on examination of the female from whom the disease was contracted, he discovered no appearance of ulceration or other disease. The incon-

clusive character of these observations are more than suggested by Mr. Evans himself, who mentions the possibility of ulceration existing in some of the females examined beyond the reach of the eye, or mere entrance of the vagina. The advantages derivable from the speculum were not then available, hence arose the doubt and uncertainty in these investigations.*

I have stated the foregoing doctrines of the three respective schools, that the reader may reflect and judge for himself. For my own part, I entertain no doubt as to the totally distinct natures of the syphilitic and gonorrhœal poisons ; and I might assign no better reason than the fact which has been noticed by Mr. Foot, one of Mr. Hunter's most zealous supporters. He remarks that " a man may have a gonorrhœa without a chancre, and a chancre without a gonorrhœa ;" and he then proposes the question, " If both fluids possess the same virus, how happens it that chancres do not inevitably accompany a gonorrhœa, and gonorrhœa chancres in the same subject ?" The manner in which Mr.

* " Pathological and Practical Remarks on Ulcerations of the Genital Organs." By James Evans, surgeon of the 55th Regiment.

Foot attempts to get rid of this difficulty is both inconclusive and unsatisfactory.

Although the literal signification of the term gonorrhœa* is altogether inapplicable to the group of symptoms it is intended to designate, we shall nevertheless retain it as being in most general use, especially as we do not anticipate the probability of its misleading the student as to the true nature of the disease, and also as it decidedly is not more objectionable than blenorhagia,† an appellation proposed by Swediaur. The disease usually makes its first appearance between the fourth and eighth day: sometimes later, after exposure to infection. It commences with a slight itchiness around the orifice of the urethra; and if we examine the parts at this early period, we shall observe a puffiness of the margin of that opening, which evinces a disposition to assume a circular or rounded form, instead of its natural slit-like shape. Presently we shall remark a tendency in the opposing edges to agglutinate, owing to the presence of a minute quantity of adhesive matter. After a while the symptoms become better developed. The itchy

* Derived from γονὴ, *semen*, and ῥέω, *fluo*.

† Derived from βλέννα, *mucus*, and ῥέω, *fluo*.

or tingling sensation at the orifice is converted into absolute pain of a sharp, cutting character, which extends a short distance down the canal, indicating an inflammatory condition of its li-i ng membrane, which renders it intolerant of contact with the urinary secretion. Hence occurs the distressing sensation of scalding, on the passage of that fluid from the bladder, to which the term *ardor urinæ* has been applied.* As the disease progresses, the symptoms are aggravated ; the discharge becomes thick and purulent, and sometimes of a greenish hue. In some instances it is sanious, indicating, as noted by Ricord, Acton, and others, the existence of a urethral ulcer. The patient is now harassed by frequent erections at night, which add considerably to his sufferings, and interfere with rest. As the inflammatory action extends in depth, the corpus spongiosum becomes involved ; lymph is poured into its cells, which become agglutinated, and deprived of their normal extensile property. Consequently, when the corpora cavernosa are

* Some have attributed the acuteness of this symptom in a certain degree to an undue acid or alkaline condition of the urine. Observations recorded in an Essay on Gonorrhœa by Mr. Milton, which Mr. South kindly sent me, controvert this view.

distended, the corpus spongiosum remaining in this unyielding state obliges the whole organ to assume a curved, deformed condition : to this the term chordee has been applied. Hemorrhage is also an important complication of the disease, and although it is generally indicative of a high state of inflammation, it is not invariably so. We have known it to occur very copiously where there was but little distress or pain. The patients were of a delicate leucophlegmatic appearance, and we presume the vascular system was feeble and liable to yield. The hemorrhage may also be connected with a varicose state of the urethral vessels. This condition is, however, more peculiar to persons in advanced life.

When the above symptoms have existed for some days, they will gradually decline ; the appearance of blood will diminish, and ultimately disappear ; the erections also will be less frequent and painful ; the scalding will subside ; and the morbid secretion, losing its thick, greenish character, will become more copious, and of a whiter colour. Ultimately it will decrease, and disappear altogether. In addition to the local symptoms enumerated, we may have, in the earlier stages, more or less symptomatic fever.

Sometimes the disease will assume a sub-acute character, the discharge presenting a whitish hue, without any appearance of blood, and the local suffering being but trifling. It has generally been alleged that the first attack of gonorrhœa is of a more inflammatory and urgent type than subsequent ones in the same person. So far as my experience goes, this undoubtedly is the rule ; but it presents exceptions, for I have known the first to be comparatively mild, and the second remarkably acute.

There are, I believe, few practitioners who will not acknowledge the tedious and obstinate character which this apparently simple disease frequently assumes. Mr. Carmichael states that it is " not one of the least of the opprobria medicorum." A variety of causes have been assigned for this, some attributing it to constitutional complications, as the existence of gout or rheumatism ; whilst others, and, I believe, with more truth, lay down neglect and irregularities on the part of the patient as the most fruitful source of disappointment in our treatment. There can be no doubt that the rule which holds good in regard to the success of our treatment in primary syphilis, viz. that everything depends on our

management during the first or early period of the disease, is equally applicable to cases of gonorrhœa ; for if the acute stage of this disease be mismanaged, we may have a train of chronic symptoms to contend with for months or even years. I do not pretend to say that a gouty or some other morbid diathesis may not influence the disease ; on the contrary, I am fully aware of such complications, and the effects they may exercise on the local affection.

During the period of my connexion with the 60th Royal Rifles, thirty-one cases of gonorrhœa were admitted to the regimental hospital. The average period these were under treatment was twelve days.* Again, in the course of my medical charge at the General Hospital, fifty-eight cases were admitted to my wards. Of these, forty-seven were uncomplicated by bubo, phymosis, or inflamed testis ; thirty-seven were treated without the aid of injections, and on the general principles which I shall presently explain. The

* This calculation is made from a return sent to me by Assistant-Staff-Surgeon Paleologus, who was attached to the Depöt, 2nd battalion 60th Rifles, Fort Regent, Jersey, at the period I was preparing the MS., and who kindly examined the Register kept by me whilst in charge of the Depöt at Beggars' Bush Barrack, Dublin.

average period of their treatment was $16\frac{6}{37}$ days. If we now take the thirty-one and thirty-seven cases in conjunction, we shall have a total of sixty-eight ; and on further calculation, we shall find the gross average period of treatment to have been a fraction exceeding fourteen days. The early success of my treatment I chiefly attribute to the continued state of quietude and strict attention to diet which I invariably insisted on. Similar results, due to the same causes, will no doubt appear from the returns of other regimental hospitals. In the fourteenth volume of the *Edinburgh Medical and Surgical Journal* we shall find a report of fifty-four cases of gonorrhœa in the hospital of the Castle of Edinburgh, conducted under the care of Messrs. Johnston and Bartlett in the hospital of the 88th Regiment, fifteen were treated by rest and abstinence, and discharged cured, after an average period of eight days and a-half.

The surgeon who bears in mind the very great liability of the symptoms in this disease to return after they have been apparently subdued, may enquire what particular rule I adopted in discharging the patients to regimental duty ? In reply I may state that my rule was to detain

them in hospital for some time after the gonorrhœal discharge had altogether ceased, and until the condition of the urethral orifice and the absence of all stain from their linen satisfied me that the disease was permanently and not temporarily checked. Thus, on examining the hospital register, I find that some patients were not discharged to duty for two, three, four, or even five days after the symptoms had been reported as checked. This I consider a most valuable precaution, as it secures us not only against relapses, but other consequences which would require a return to hospital. The regimental surgeons, I have no doubt, adopt a similar rule, as I find that during the whole period I was attached to the General Hospital, I had but six cases of hernia humoralis—a disease which, we are aware, is very liable to occur in cases of gonorrhœa that have been either neglected or dismissed from hospital before a permanent cure has been established.

Treatment.—If the disease presents itself with acute inflammatory symptoms, we may commence by administering some saline aperient, containing a small quantity of tartrate of anti-

mony, which may be repeated at intervals of four or six hours, until the bowels are freely evacuated, and a copious secretion produced from the alimentary canal. General bleeding will seldom be requisite ; but if there be any sign of the inflammation extending towards the neck of the bladder, as indicated by pain and uneasiness in that situation, and a sense of soreness along the urethral tract, we shall derive the greatest benefit from the use of leeches ; and in order to secure their effectual operation, they should be confined as closely as possible to one spot, the central point of the perineum, which may be readily accomplished with the assistance of a small pill-box or a glass. Local bleeding, effected after this manner, will be found of considerably more advantage than if the leeches be scattered. When the bowels have been satisfactorily acted on, we may direct antimonials, such as James' powder, either alone or in combination with nitrate of potass. This latter may also be administered alone, or in combination with bicarbonate of soda, with excellent results. These will have the effect of increasing the renal and cutaneous secretions, thereby diminishing febrile disturbance and lessening the local inflam-

matory action. To relieve the chordee, our chief reliance rests on opium, which is usually combined with camphor, and given in the form of pill. Opium may also be administered in the fluid state, and we know of no better preparation than Battley's sedative, which may be combined with camphor mixture and some spirit of nitrous ether. Opium has likewise been recommended in the form of enema. Sir Benjamin Brodie reports most favorably of the efficacy of colchicum in this affection, which is not only distressingly painful, but obstinately persistent in many instances. Mr. Cooper, the able author of the Surgical Dictionary, states that he has prescribed the vinum colchici, and found it useful in relieving strangury, ardor urinæ and irritable bladder. During the acute stage we shall procure the greatest relief by immersing the penis three or four times daily in warm water. This appears to have a soothing effect, and serves to tranquillize the local irritation which promotes chordee. When the disease is complicated with phymosis, whether it be congenital or inflammatory, we should take special care to preserve cleanliness by repeated sub-preputial injections

of tepid water, or of a solution of sulphate of alum.

The inconvenient and sometimes serious consequences, which are liable to result from congenital phymosis, may render it advisable at a future period to adopt circumcision. This operation, as proposed by Ricord, consists in tracing with ink, whilst the penis is relaxed, a circular line following the oblique direction of the base of the glans, at two lines distant from and in front of the base. The prepuce is then to be drawn forwards and fixed with a dressing forceps placed perpendicularly in front of the glans and behind the inked line. The instrument being held by an assistant, the operator then seizes the portion of the prepuce anterior to it with the fingers of his left hand, whilst with the right, armed with a straight bistoury, an incision is made along the inked line. The mucous layer, which still remains entire, resting on the glans, is next to be divided by means of a scissors, cutting on the upper surface of the glans towards its base. The flaps are then to be dissected round the frenum, which is to be removed with them. Bleeding from the artery of the frenum and other vessels is to be arrested by torsion.

When the prepuce is not elongated, but rather short, M. Ricord proposes the old method by the superior section; in other cases he merely excises a V-shaped portion superiorly. Pinching up the prepuce longitudinally, he removes the part, leaving a triangular gap, the apex towards the corona.* More recently M. Ricord has contrived an admirably designed forceps for the performance of circumcision on an improved method, by which he is enabled not only to fix the prepuce, but also to pass sutures with the utmost facility and exactness, for the purpose of keeping in contact the mucous and cutaneous layers with a view to their union.

Throughout the treatment of gonorrhœa the most scrupulous attention must be devoted to the diet of the patient. Milk diet is unquestionably preferable, and we shall find in this, with extra allowances of the different farinaceous articles, abundant means of support. It is remarkable that evil results will sometimes ensue from even the slightest deviation from the prescribed rules in this respect. We have known a very small quantity of animal food to increase the symptoms. Spiritous, vinous, and fermenting liquors of every

* Traité des Maladies Vénériennes.

description must be strictly prohibited. Soda and seltzer waters, or spring water, with syrup of capillaire, will be found refreshing and agreeable beverages. Barley and gum waters, and flax-seed tea are in frequent requisition, and serve to relieve the ardor on passing water.

Retention of Urine.—During the acute stage of the disease, the inflammatory condition of the urethra will not unfrequently cause dysuria, and if the neck of the bladder becomes implicated, total retention may ensue, giving rise to the most distressing and urgent symptoms. The disposition to this serious complication may be very much favored, if not entirely induced, by the injudicious administration of balsams and turpentines in the treatment of the original disease. When called to a case of this description, our measures must be decisive. Venesection in the first instance, so as to produce a decided impression on the system, and if necessary this is to be followed by the application of leeches to the perineum. The warm hip-bath and opiate enemata will be found useful in allaying spasm and irritation. Tobacco injections, as recommended by Mr. Earle, may be adopted with the same view.

Anodynes administered by the mouth will also materially assist our treatment. Should these measures fail, we must have recourse to the catheter, the introduction of which will be much facilitated if we operate while the patient is in the bath. Bland mucilaginous drinks may also be administered, but not in excessive quantities.

Hemorrhage.—I do not recollect a case of urethral hemorrhage in gonorrhœa requiring the interference of the surgeon. As, however, such an occurrence may take place, we should be prepared with the means for arresting it. These consist in perfect quietude, and in the diligent application of cold lotions or ice to the perineum and penis. If these fail, we must adopt pressure in the former situation, and, if requisite, to the urethral canal, by introducing a full-sized bougie, and carefully applying a suitable bandage round the penis so as to maintain pressure. This apparatus should be continued for some hours, and will generally arrest the symptom.

Towards the decline of the acute stage of gonorrhœa we may have recourse to those medi-

cines which are supposed to exercise a specific influence on the mucous membrane of the urethra, such as the balsam, essential oil, or resin of copaiba.* Franks' specific solution of copaiba I have also used, and with excellent results. The dose is a teaspoonful, to be taken three times daily in a glass of cold water. The balsam, however, is in most general use ; it may be prescribed in form of emulsion, or taken in its simple state, dropped on some aromatic water ; and although it seems to be generally most efficacious, yet there are cases in which it will fail, as, for instance, in those of a pale, leucophlegmatic appearance, in whom the disease is especially prone to assume a gleety character. In such we shall frequently observe the greatest benefit to result in the later stages from bark, steel, and sea-bathing.

With reference to the period best adapted for the use of copaiba, there is a great diversity of opinion. Mr. Liston, in his " Elements of Sur-

* " The volatile oil contained in copaiba is probably its active part. This is doubted by some, and a few even insist, on the contrary, that the active principle is in the resin. But some of the specific solutions sold in the shops, and which are undoubtedly efficacious, contain chiefly volatile oil. The pure oil is itself an active remedy."—*Christison.*

gery," states that "copaiba administered from the first, and not after the inflammatory symptoms have subsided, is perhaps the remedy chiefly to be relied upon. It should," he continues, " be given at bed-time, and in a large dose, from a drachm to two drachms." On the other hand, M. Lisfranc states that " it is eminently uncertain in its action while active imflammation exists." So far as my own judgment is capable of deciding, I would say that, as a general rule, the most advantageous time for the exhibition of copaiba is just when the inflammatory symptoms are on the decline, or, as Sir Astley Cooper advises, " when they have in a great degree subsided." I have tried a modification of Liston's plan, by giving the balsam from the very commencement of the disease in doses of twenty drops three times daily, and the symptoms permanently disappeared on the fourth day. MM. Velpeau and Lisfranc proposed the administration of copaiba by enema, and reported most favorably of its efficacy when used in this manner. Should it disagree with the stomach when given in the ordinary way, we might try this plan. M. Velpeau gave an ounce in the course of the day in divided doses, in form of emulsion, adding a pro-

portion of laudanum. I have no experience of this method of treatment.

Besides the preparations of copaiba, cubebs, a species of Java pepper, first introduced to the profession by Mr. Jeffreys, has for a long time been a popular remedy for the disease. It is usually administered in doses of a drachm or even two drachms, either alone or in combination with nitrate of potass. As the pepper is liable to exercise a powerful influence on the neck of the bladder, by producing strangury and bloody urine, we must carefully watch its effects. With respect to the general efficacy of cubebs, although sometimes a most beneficial remedy, I am by no means disposed to consider it so certain in its operation as copaiba. Besides, the large quantity required to be given, renders it peculiarly liable to disagree with the stomach. It also has a tendency to produce troublesome cutaneous affections. In the *Dublin Medical Press* of some years back, I recorded a case in which a most obstinate eruption caused by its use appeared on the backs of the hands, in the form of red patches about an inch in diameter, traversed by fissures in different directions, and presenting a disquamating, scaly surface. It was intensely

itchy, and produced much constitutional irritation. Under the use of baths and Dover's powder it ultimately subsided, leaving a mottled state of the hands which remained nearly two months. Having had occasion to administer purgatives at the commencement, it was quite surprising the quantity of dark concrete matter, evidently cubebs, which passed from the bowels.

Capsicum has also been used for the cure of gonorrhœa. I understand from reliable authority that in the West Indies it is found most efficacious in doses of a teaspoonful administered three times daily ; my informant tells me that it generally cures in a few days. In the report of Messrs. Bartlett and Johnston, already quoted, eight cases appear as treated with capsicum ; four were cured on the eighth day, two on the twelfth, and two on the twenty-fourth day.

Injections.—Having disposed of the principal constitutional means adopted in the disease, I shall offer a few remarks on those remedies which, in the form of injections, are intended to act more immediately on the mucous membrane of the urethra. I seldom found it necessary to have recourse to them in the military hospitals, as the

discharge generally ceased under the treatment I have described. In some cases, however, we shall find them of the greatest utility, and instead of causing a tendency to the formation of stricture, I believe that this disease would be less frequent if the judicious and well-timed use of injections was oftener adopted.

There are two periods of the disease in which injections have been recommended, and in each of these the surgeon has a distinct and particular object in view. The first is the acute or incipient stage, when, in order to counteract or supersede the morbid state, a strong solution of nitrate of silver, oxymuriate of mercury, or some similar ingredient is injected into the urethra. These salts may also be used in the form of an ointment, combined with lard, and smeared on the extremity of a bougie, which is to be introduced about an inch into the passage, and permitted to remain for a minute or so. Previous to this operation the patient should be directed to pass water, so as to cleanse the surface of the passage, and allow of its more immediate contact with the medicated solution or ointment. In this mode of treatment I have not had much experience, but the result of my limited observa-

tion has been by no means encouraging. Not that I have ever witnessed in a single instance the supervention of any of those acute or inflammatory consequences which have been urged against the use of stimulating injections, but because I think the remedy to be uncertain ; in some cases being attended with remarkable success, but in other instances appearing to induce a gleety discharge which proved rather tedious. The first case I ever saw treated by this method was by the late Mr. Colles. The patient was an officer in the Company's service, on leave of absence in this country. Anxious, for particular reasons, to get rid of the disease he had contracted, he applied to that eminent surgeon. The solution directed to be used as an injection contained the oxymuriate of mercury ; the proportions I do not call to mind. The remedy at first caused some smarting and pain, but the disease was cured about the fourth day. In putting forward this successful instance, I do not of course mean to advocate a practice which I have stated to be uncertain in its results ; an opinion in which I have the satisfaction to be borne out by the interesting Report of Messrs. Bartlett and Johnston already alluded to. According to that document,

twenty cases were treated by injection ("20 grs. of nitrate of silver in ℥j. of plain boiled water"); of these, one was discharged cured on the third day, one on the fifth day, one on the sixth day, two on the tenth day, and four on the fifteenth day. The periods occupied in the treatment of the remaining eleven cases varied from seventeen to forty-two days. The late Mr. Wallace advocated this treatment; he used 15 grains of the nitrate to the ounce of distilled water. If the surgeon is resolved on further testing this plan, he should not neglect to keep the patient on the very lowest scale of diet, and insist on perfect and uninterrupted quietude. The judicious administration of tartar emetic may also be advisable. M. Ricord states that he has in many cases succeeded in checking the discharge by cauterization of the urethra, performed with M. Lallemand's porte-caustique. The operation is to be repeated in three or four days, if the inflammation following the first has not been excessive.

Although objections may be urged against the use of injections as described above, they by no means apply to the same remedies in a mild form during the latter periods of the disease, when all inflammatory action has subsided, and

we desire to arrest the discharge. Injections for this purpose may be medicated with mineral or vegetable substances ; and it is remarkable that scarcely one of them will be found uniformly successful in six successive cases. Therefore we should not persevere in the use of any particular one if the desired effects are not produced on the expiration of a few days.

Vegetable injections may be prepared with green tea, tormentil root, krameria, tannin, &c. The first of these was recommended to me some years ago by Sir Philip Crampton, in the case of a gentleman who had tried almost every expedient and failed. On his having recourse to the tea infusion, the symptoms abated in a few days, and ultimately ceased. I have subsequently recommended it in other cases, and it has proved most efficacious. It is prepared by pouring eight ounces of boiling rose-water on three teaspoonsful of the best green tea, allowing the infusion to cool, and then straining.

Mineral injections, such as solutions of nitrate of silver, containing $\frac{1}{4}$ gr. or $\frac{1}{2}$ gr. to the ounce of distilled water, are in frequent use. The acetate of lead, the sulphates of zinc, copper, iron, and alum have also been recommended in solutions of

various strengths. M. Ricord reports most favorably of the proto-ioduret of iron, in the proportion of 1 to 18 grains to the ounce of distilled water. I have not given any trial to this form of injection.

During the treatment of this disease, it has been my invariable practice to insist on the patient's wearing a suspensory until the discharge has totally ceased, in order to prevent an inflammatory attack of the testicle.

Warts.—In cases of gonorrhœa, especially where cleanliness has not been sufficiently attended to, we shall frequently meet with these growths. Sometimes they are seen occupying the free margin of the prepuce, and favoring a contracted state of its orifice ; or they may be developed around the urethral opening ; or, lastly, they may be altogether concealed from our view by a phymosis. These warty excrescences also succeed to primary syphilitic sores ; but I do not believe that they possess any thing of a specific character. On this point, however, there is a difference of opinion amongst some of our chief authorities; Sir Astley Cooper maintaining

that they are altogether a local disease ;* whilst others, amongst whom may be mentioned Mr. Carmichael, entertain a directly opposite view.† These excrescences, which are sometimes extremely vascular, present a variety of appearances ; in some instances being rather flat, and in others presenting a tufted appearance. They may also be observed attached to the surface by a narrow neck or pedicle. A thin offensive discharge is secreted by them, which some suppose has the power of producing fresh growths, and thereby of keeping up the disease. Sir Astley Cooper informs us that he has known two instances of this. For the treatment of these excrescences some recommend the application of strong acetic acid. The tincture of the muriate of iron has also been used with reputed good results. Excision is the mode I have always adopted, taking care to cauterize the surface after the operation. Under any plan of treatment they will always be very liable to return.

Condylomatous excrescences are sometimes

* Sir Astley Cooper's Lectures, 2nd Edition, p. 515.

† Lectures by Gordon, p. 75.

observed in great abundance in females laboring under gonorrhœa, and who have not devoted sufficient attention to cleanliness. We shall meet with them on the labia, perineum, and upper and inner surface of the thighs. They are also to be met with in the advanced stages of primary syphilis, and hence some have considered them of a specific origin. On this I entertain considerable doubt, and I have therefore postponed any notice of them until I had described the disease with which I have most frequently found them associated. The late Mr. Pearson observes that they are "very uncertain criteria of syphilis," because he had met with them "where no venereal infection could be reasonably suspected;" and Dr. Egan states that he had frequently endeavoured to re-produce them by inoculation, but in every attempt was unsuccessful.* These cutaneous growths present rounded prominences. Their surface is of a dirty white colour, and remarkably indolent, giving origin to an offensive discharge. Although condylomata are most frequently met with amongst females, we shall also see them in males. I recollect, during my first visit to London,

* Egan on Syphilitic Diseases, p. 143.

remarking to Mr. Lawrence the large number of cases amongst this sex in St. Bartholomew's. The treatment consists in the local application of solutions of sulphate of zinc or nitrate of silver. Strong solutions of corrosive sublimate have also been used. The nitrate of silver in substance is recommended by Mr. Lawrence. In conjunction with local treatment alterative mercurial courses have been directed ; as also the iodide of potassium with sarsaparilla. Lastly, excision and the ligature have been adopted.

Gonorrhœal Rheumatism.—Severe pains resembling rheumatism may complicate gonorrhœa. This, however, is by no means a frequent occurrence; I have seen but few instances of it. In these the affection came on towards the latter stages of the disease, and the urethral discharge became considerably diminished. In one instance a general cutaneous soreness was complained of. The last case of gonorrhœal rheumatism that come under my notice was in a female named Eliza Magrath, forty-two years of age, who applied to me about six weeks ago. The following are the notes which I took at the time :—

"E. M. has severe pains about the ankles and backs of the legs, which set in about three days ago, and are worse towards evening. She also complains of swellings of the ankles which interfere with the removal of her stockings. This woman never had had rheumatism or pains of any description. During the last three weeks she has had gonorrhœal discharge. Previous to the supervention of the pains sickness was complained of." Of course I had no doubt as to the nature of this case.

The first published description of this disease was by Sir Benjamin Brodie, in whose excellent work on Diseases of the Joints, we shall find a very interesting case exemplifying the characteristic group of symptoms. The joints usually implicated are the ankles and knees, which become painful and swollen, the synovial membranes being the principal seats of the disease. In Sir Benjamin Brodie's case, the knees, ankles, tarsi, metatarsi, and toes seemed extensively involved. There is not much constitutional disturbance, and the affection ultimately subsides without leaving any permanent organic lesion. Sir Astley Cooper, in his lectures already quoted, gives a remarkable case which

occurred to him in the lifetime of Mr. Cline, of an American gentleman who was always subject to this disease, as well as an inflammatory affection of the eyes, on an attack of gonorrhœa. The treatment recommended by this distinguished surgeon consisted in the administration of either the spirit of turpentine, the balsam of copaiba, or olibanum.* Sir Benjamin Brodie directed leeching, blistering, liniments and fomentations ; with these he combined the internal administration of colchicum. In the case of the woman Magrath, noted by me, I prescribed the vinum colchici with the copaiba mixture.

Sympathetic Bubo.—In consequence of the irritation of a gonorrhœa, the inguinal glands, usually those which are deep-seated, may become swollen and painful. This affection is generally caused by imprudence and neglect on the part of the patient, and may attack both groins or be confined to one side. These swellings rarely suppurate, and inoculation performed with the matter obtained from them gives negative results. The treatment consists in perfect quietude, low diet, leeching, evaporating lotions, and the free

* Sir Astley Cooper's Lectures, pp. 499, 500.

evacuation of the bowels; by these means resolution will rarely fail to be accomplished.

Inflammation of the Prostate Gland may also result from gonorrhœa. When this occurs the urethral discharge becomes diminished, a sense of soreness is experienced along the trajet of the urethra, and towards the neck of the bladder. In the situation of the prostate, deep seated pain and uneasiness are complained of, difficulty in passing water is also experienced, and the continual desire to evacute the bladder adds considerably to the patient's sufferings. Sometimes even total retention will set in. The patient, moreover, is feverish and restless, and if the disease proceeds to suppuration, rigors will occur, accompanied by an exasperation of the local symptoms. If we institute an examination by the rectum, great fulness will be discovered, and pressure on the part will be productive of much pain. Should an abscess form, it may either burst into the urethra or advance towards the perineum.

The treatment must be strictly antiphlogistic; general and local bleeding, with diligent and frequent fomentations. Considerable relief will

also be derived from hip-baths. In addition to these means, the lower intestine must be freely evacuated, and with this view five or six grains of calomel, to be followed in four hours after by an aperient draught, may be directed. The patient will frequently object to enemata, in consequence of the pain produced by the introduction of the pipe and the distension of the gut. When the bowels have been relieved, James' powder combined with calomel may be administered every fourth or sixth hour. Mr. Carmichael recommended calomel and opium, so as to affect the system as rapidly as possible, and thus arrest the local inflammation. Should retention of urine occur, which Desault remarks sets in rather suddenly, relief must be afforded by the introduction of a gum-elastic catheter ; and it will sometimes occur that the discharge of matter with the urine will announce that a prostatic abscess has been opened by the instrument. Should the abscess, in the event of suppuration, tend towards the perineum instead of the urethra, as generally happens, we must at once give free exit by an opening carried deeply into the parts.

Hernia humoralis. — The disease to which

this designation has been rather absurdly applied, and which usually attacks but one testicle, consists in an inflammatory condition of the epididymis, and subsequently of the entire testis, caused by irritation or inflammation, extending along the vas deferens from the urethra, and traceable either to a neglected or a mismanaged gonorrhœa. This I understand to be the view generally entertained of the disease. Sir Benjamin Brodie and others have, however, long ago proposed a second explanation, viz., the production of the disease in the testicle by a translation of the inflammation from the urethra to the testis; at the same time, that distinguished surgeon admits it may also be the result of extension of the inflammation along the vas deferens. M. Ricord has proposed a form of the disease where the testis becomes inflamed by sympathy, without the vas deferens being the medium of transmission, or manifesting any morbid phenomena; but this appears to me to be the same as that described by Sir Benjamin Brodie, differing only in the explanation as to the mode of occurrence. Mr. Acton is disposed to think that Hernia Humoralis, as well as ophthalmia and rheumatism, are rather coincidences than caused directly by gonorrhœa,

and that they may, if violent, act as revulsives and mitigate the original disease.* This is evidently an erroneous view.

The disease, which at first is essentially an inflammatory affection of the epididymis, usually appears in the chronic or advanced period of gonorrhœa, when the patient, relieved of the acute symptoms, is but too liable to forget his sufferings and indulge in his usual exercises and perhaps excesses. The symptoms commence with a feeling of slight uneasiness towards the neck of the bladder, which has been well compared by Sir Astley Cooper to the sensation of a drop of urine in the perineum ; this is accompanied by a diminution in the gonorrhœal discharge. Presently a tenderness and some fullness is felt in the spermatic cord. The epididymis is soon involved, and becomes swollen and painful. As the inflammation extends to the testicle itself, the pain grows more intense ; and in proportion as the general tumefaction increases, the scrotum, deprived of its rugæ, assumes a tense, red, shining appearance. The weight of the inflamed organ now exercises a traction on the cord which aggravates materially the patient's sufferings.

* Acton on Venereal Diseases, p. 36.

With these local symptoms we have often a considerable degree of sympathetic fever. The urethral discharge usually ceases altogether on the occurrence of this disease, but such does not invariably happen. In every instance, however, it is greatly diminished, and becomes re-established on the subsidence of the affection of the testicle, which rarely proceeds to suppuration. When this result unfortunately occurs, symptoms of a very tedious and obstinate character, such as the formation of abscesses and sinuses are liable to supervene. Sir Astley Cooper accounts for the difficulty in healing these sinuses by the seminal fluid, which is constantly escaping and interrupting the adhesive process.

Treatment.—Two distinct methods have been proposed for the treatment of this disease. The first is conducted on strictly antiphlogistic principles, and the second consists in the application of uniform and firm compression around the inflamed organ, by which the tumefaction is reduced in some cases in an unusually short period; thus presenting a decided advantage over the former plan, which, notwithstanding all the judgment and care evinced in its adoption, every

experienced surgeon must admit will often leave us to contend with tedious and protracted symptoms.

In adopting the first plan, we commence by abstracting blood locally from the diseased organ : this may be effected either by leeches, or by opening several veins of the scrotum with an ordinary bleeding lancet while the patient is standing. This is an admirable plan, and will save considerable trouble, as well as being convenient. After the local bleeding we may apply either cold applications,* as recommended by Sir Astley Cooper, or envelope the part in a warm linseed-meal poultice, which will encourage further bleeding and tend to reduce the local inflammation. This latter method I have found to act satisfactorily. The topical bleeding may require to be repeated again, and even a third time, before the desired results are obtained. In addition to these local means the bowels must be freely evacated, and subsequently tartar emetic may be administered in nauseating doses. During this

* An objection has been raised to cold applications by some, who say that they cause the scrotum to contract, and produce pain by pressing on the diseased testis. This, however, is all theory.

treatment the patient must be strictly confined to the recumbent position and low diet, and the inflamed organ must be maintained in a suspensory.

Such is an outline of the antiphlogistic plan of treatment; and, as I before stated, I am sure every experienced surgeon will admit that it frequently results in delay and disappointment. We may, after all our efforts, have an indurated condition of the testis, which it will occupy weeks to reduce; and it was this experience which induced me to try the method by compression, first proposed by Fricke of Hamburgh in the year 1836. Independent of the successful results which have followed this plan of treatment in the practice of others, I have myself given it a sufficient number of trials to justify me in recommending it for the efficiency as well as the celerity of its operation; and although the pain produced by it is, in the first instance, sometimes intensely acute, this will very generally be found to subside after a short interval. The mode of its application is very simple, and only requires a little nicety and attention to secure an equable and uniform amount of pressure around the inflamed organ. Being provided with strips of adhesive plaster something less than an inch in breadth,

we commence by fixing and retaining with our left hand the inflamed testis in the lower part of the scrotum, whilst with the right we carefully and firmly encircle the parts immediately above it, so as to prevent it slipping upwards. We then proceed from above downwards, applying successive strips, the upper overlapped by the one below it, until we arrive at the lower part of the affected organ ; the compression of which we accomplish by two or three strips adjusted perpendicularly, commencing anteriorly above the testis, and conveyed downwards over its inferior extremity, and then upwards along the posterior surface ; forming compressing loops, as it were, for the diseased organ.

Amongst the advantages resulting from this plan of treatment, it has been stated that in the generality of cases the patient is able to go about his usual avocations ; but this I never avail myself of, for I am of opinion that the cure will always be more effectual and speedy if, after the adjustment of the straps, we confine the patient to the recumbent position, with low diet, and administer tartar emetic in nauseating doses, to ward of any tendency to increased inflammatory action. Under these precautionary means, I cannot call

to mind a single case where the sufferings of the patient obliged me to remove the strapping ; and I have generally observed, within the second or third day, the apparatus so loose around the reduced testis as to require its fresh application. Sometimes we shall find, after the testicle has nearly attained its natural size, some induration of the epididymis which will delay the cure. In such cases we must have recourse to some of the ordinary discutient ointments or liniments, as those containing iodine, mercury, or iodide of potassium.

CHAPTER VII.

GONORRHŒAL OPHTHALMIA.

THE last disease we shall describe as connected with, or consequent on, gonorrhœa, is an acute inflammatory condition of the conjunctiva, which, if not arrested by active and judicious measures, will quickly spread to the other structures of the eye, and terminate in the total and speedy destruction of the organ. The suddenness of its appearance, and the almost unparalleled rapidity of its progress, render all the vigilance, energy, and skill of the surgeon absolutely necessary. "These are cases," remarks Mr. Bacot, "which defy all the usual etiquettes of regular and ceremonious visits. If we wish to save our patient from the destruction of his vision, we must scarcely depart from his bedside until the inflammatory symptoms are controlled."*

Gonorrhœal ophthalmia was described by St.

* Bacot on Syphilis, p. 134.

Yves as early as 1722, and subsequently by Astruc.* The first of these writers was evidently acquainted not only with the symptoms, but also with the destructive tendency of the disease. He has laid down fourteen species of ophthalmia ; the ninth he designates " l'ophthalmie la plus violente, appellée chemosis ;" and after detailing some of the most prominent characters of this form, which corresponds to our acute purulent ophthalmia, he concludes thus :—" Dans cette ophthalmie il arrive souvent que toute la cornée trasparente tombe par suppuration, ce qui detruit la chambre anterieure de l'oeil ; la cicatrice qui suit cet accident empêche que le cristallin et la vitrée ne s'echappent et par consequent que la globe ne se fletrisse entièrement ; quelque fois l'un et l'autre arrivent."† M. St. Yves then proceeds to the description of his tenth species, which he states presents nearly the same appearances as the former. This he entitles, " l'Ophthalmie Vénérienne," which corresponds to the disease that I shall presently describe. Having treated of the symptoms, the author thus

* De Morbis Venereis, lib. iii. p. 3.

† Nouveau Traité des Maladies des Yeux, par M. de St. Yves, p. 185. Paris, 1722.

explains his views as to the mode by which they are produced, " La matiére ayant cessé en partie de sortir par les voyes ordinaires, a causé une metastase ou un transport à l'oeil, par lequel il couloit une matiere semblable, et qui teignoit le linge de même que celle qui couloit par les voyes ordinaires.* This doctrine of the metastasis of the disease from the urethral passage was upheld by subsequent authorities of considerable note, amongst whom may be enumerated Astruc, Swediaur, Beer, Richter, Scarpa, &c. who founded treatment on this view.

Another mode by which the disease is supposed to be produced, is by the actual contact of the morbific matter with the eye. This, I believe, is now very generally granted, and the fact of the disease generally attacking but one eye is, I conceive, strongly in favour of this view. Dr. Vetch was led to conclude, from some observations, that gonorrhœal ophthalmia could not be produced in an individual by the morbid matter procured from his own urethra, although the same virus is capable of causing the disease in another ; but the experiments and facts which

* P. 187, op. cit.

have been brought forward in support of this opinion are far from being satisfactory or conclusive. The instance of the hospital-assistant Smith, who applied gonorrhœal matter to his own eyes with impunity, certainly goes to prove that the virus coming in contact with the eye is not always certain to produce the disease; but it is not sufficient to settle a question which ought to be decided by numerous proofs. Besides, it appears to me that sufficient importance has not been attached to the protective influence of the lacrymal secretion, which perpetually moistens the conjunctival membrane, and which is poured out in such abundance, and almost instantaneously, on the application of any irritating matter to the eye. Mr. Lawrence states, with reference to the occurrence of gonorrhœal ophthalmia, that he is inclined to refer it "to the state of the constitution, without being able to point out in what that state consists; and to regard it as a pathological phenomenon analogous to those successive attacks of different parts which are observed in gout and rheumatism."* Experience, I confess, strongly favors this view.

* On Venereal Diseases of the Eye, p. 34.

Acute gonorrhœal ophthalmia has been divided by Mr. Lawrence into three stages. In the first, there is vascular congestion and swelling of the conjunctiva, with swellings of the lids. The second is indicated by puriform discharge, and the third by extension of the inflammation to the cornea.* Now, although Mr. Lawrence has admitted that the exact limits of each of these stages cannot be very accurately defined, it is nevertheless of practical moment to bear in mind this proposed division, as pointing out to us not only the progress of the disease, but also the dangers to be apprehended from it. The consequences liable to result from the third stage constitute our chief source of anxiety, and it is to the prevention of these our entire resources are to be directed. So long as the cornea maintains its natural transparency and brilliancy, we may have hopes of a favorable issue; but should it lose these characters, and become hazy, or present a muddy appearance, our apprehensions become excited. The important structure thus changed may be attacked by ulceration or suppuration; or if the inflammatory action be in-

* On Venereal Diseases of the Eye, p. 16.

tense, sloughing may be the consequence. Besides these, the inflammation may result in deposits of lymph between the laminæ of the cornea, producing those various degrees of opacity termed albugo, leucoma, &c., and thus permanently change its natural structure. Should the ulcerative or sloughing process involve the entire thickness of the cornea, the consequence will be either an escape of the humours, and subsequent shrinking of the globe, leaving the sclerotic, which falls into folds, and eventually forms an indurated nodule ; or the iris may fall forwards, and the disease terminate in staphyloma. Should the former not occur, the effect produced on vision will depend on the extent of mischief inflicted on the cornea.

Acute gonorrhœal ophthalmia usually commences with a slight degree of pain and uneasiness in the eye, with a sensation of sand under the lids, which are swollen. After a very few hours the symptoms become much aggravated. The tumefaction of the lids increases ; in some cases they are œdematous, and on separating them with a view to examine the condition of the eye, extensive chemosis is observed, and the conjunctiva presents one red tumid mass, intensely

vascular and congested, overlapping the cornea, which seems depressed, and in some instances is almost concealed from view. Sometimes the inflamed membrane protrudes between the lids, presenting a fleshy appearance. The discharge, which was at first thin, soon becomes thick, purulent, very copious, and of yellowish hue, assimilating, as has been noticed by St. Yves, the gonorrhœal discharge not only in colour, but also in its communicating to the linen the same description of stain. At this period the local sufferings become excruciating, deep-seated and intense pain is complained of in the globe, which is chiefly due to the extension of the inflammation to the unyielding structures of the sclerotic and cornea, and which sometimes communicates to the patient that "bursting" sensation, as if the orbit was too small for its contents. This pain extends up to the brow and forehead, and is accompanied by extreme intolerance of light. In addition to these symptoms, a considerable degree of symptomatic fever is present.

Such is a brief narrative of the symptoms we may be called on to treat, in order to save the eye from the serious consequences I have referred to; and that we cannot be too watchful and energetic

will be understood, when we recollect that one of our most distinguished authorities has informed us, that "of fourteen cases detailed by him, loss of vision took place in nine from sloughing, suppuration, or opacity of the cornea. In two of these, one eye was lost, and the other recovered. Sight was restored in the other five, with partial opacity of the cornea, and anterior adhesion of the iris in three of the number. So short a period intervenes between the commencement and the full development of the complaint, that in many instances irreparable mischief is done to the eye before our assistance is required."*

Treatment.—Two distinct modes of treatment have been proposed for this formidable disease, each of which has been supported by such high authority as to call for separate and distinct consideration. The first consists in the most vigorous and decided antiphlogistic measures; the second is chiefly of a local nature, consisting of the application of solutions or ointments of nitrate of silver to the inflamed membrane, in the first or earliest stage of the disease. This plan seems to have originated with Staff-surgeon Melin, who used it in the General Hospital, Fort Pitt, Chat-

* Lawrence on Venereal Diseases of the Eye, pp. 25-26.

ham, in the proportion of four grains to the ounce of distilled water dropped into the eye twice a day. Nearly three hundred cases were treated by him after this manner, without either local or general bleeding, and the results are reported as affording marked proofs of its efficacy. The same method was tried by Dr. Ridgway, formerly of the Rifle Brigade, who used the solution in the proportion of ten grains to the ounce of distilled water, and with excellent results. More recently we find Mr. Carmichael recommending the use of a solution of from ten to twenty grains to the ounce, to be dropped into the eye three or four times a day ; while frequent ablutions with warm water by means of a syringe, during the intervals, should be employed. This we are informed has been followed by numerous instances of most perfect success. Mr. Carmichael, however, also recommends with this local treatment blood-letting, even ad deliquium in the first instance.* Lastly, M. Ricord applies the nitrate of silver in substance to the inflamed conjunctiva, subsequently directing the use of cold water ablutions by means of a syringe.

The earliest occasion on which I had experience

* Carmichael's Lectures, by Gordon, p. 107.

of the plan of treatment by nitrate of silver, was during my first visit to London after I had served my apprenticeship. The late Mr. Guthrie then kindly invited me to attend his Eye Infirmary, and it happened that he asked me to apply the remedy in some of the cases we are referring to. That eminent surgeon was in the habit of using the strong nitrate of silver ointment, composed of ten grains of the nitrate incorporated with a drachm of lard, to which was added sixteen drops of liquor plumbi subacetatis. This ointment I applied, under Mr. Guthrie's direction ,twice a week to the inflamed conjunctiva with the aid of a camel-hair brush. Saline aperients with tartar emetic were directed at the same time. Under this treatment I certainly did witness rapid improvement. In one case (that of a man named Roche, entered in a note-book kept by me at the the time), I find that the patient was "much better and improved in sight after the first application of the ointment ; pain was less, and vascularity diminished." In another case, that of a man named Nash, the improvement was not so rapid ; he is entered as "nearly well after eight applications." In another place it has been noted by me that "in some cases the treatment was not

followed by successful results." Before leaving London I had the privilege of attending the Eye Infirmary in Moorfields, by the kind introduction of my friend Mr. Lawrence. Messrs. Tyrrell and Macmurdo were then attached to that institution, where the antiphlogistic plan of treatment was pursued, so that I had at the time an excellent opportunity to contrast the two methods. I regret very much I did not preserve more copious notes of results ; my impression, however, was, that notwithstanding the remarkable and speedy success which followed the treatment by nitrate of silver in some cases, the first plan was entitled to the preference.

In adopting this method, we must be prepared to act vigorously and with decision. A free opening is to be made into the most prominent vein at the bend of the arm, and the blood permitted to flow in a full stream until a decided impression be produced on the system generally. This measure it may be necessary to repeat after a short period, if the intensity of the local symptoms demand it. On this part of our treatment Mr. Bacot has well observed, " The lancet must be hardly ever out of our reach, for if ever there was a disease in which blood

may be taken away without limitation, it is this."* The system by active depletion is also advocated by Mr. Lawrence.† Besides the general bleeding, we must abstract blood locally, either by leeching or cupping over the temporal region. This latter plan is infinitely preferable, provided it be conducted with expertness and celerity; but if we cannot depend on the operator, it is better perhaps to rely on the free application of leeches around the eye. After these we may direct the diligent use of poppy fomentations, or, as has been recommended by Mr. Lawrence, a saturnine lotion made with rose water. Mr. Vetch recommended an infusion of tobacco, made by pouring eight ounces of boiling water on two drachms of tobacco leaves. Fomentations of tobacco have also been used with excellent effects by relieving the local suffering. Baron Larrey used to recommend the white of egg beat up with a few drops of rose water, and a few grains of alum and camphor spread upon tow, and applied to the eye at night. With the local treatment we recommend free purgation, by the administration of five or six grains of

* Bacot on Syphilis, p. 134.

† On Venereal Diseases of the Eye, p. 37.

colomel, followed by an aperient. Some surgeons recommend the administration of ten or even twenty grains of the mercurial in the first instance. When the bowels have been evacuated, we may have recourse to tartar emetic in nauseating doses. In considering these measures and availing ourselves of them, we ought never to forget that our chief reliance must be on the general and local abstraction of blood.

In cases where the chemosis was excessive, and the swollen conjunctiva protruded between the lids, and at the same time so overlapped the cornea as to conceal a considerable part of it, I have carefully removed a portion of that membrane with the fine curved scissors, as recommended by Scarpa and Walther. This results in considerable relief, but unless the tumefaction be very great, and danger be threatened to the cornea from its pressure, it will be unnecessary.

Should we succeed in subduing the acute symptoms by the above treatment, we may, when the pain has subsided and the discharge assumed a less inflammatory character, have recourse to astringent washes containing alum. Blisters may also prove beneficial at this period ; at the same time the diet which hitherto was on a low

scale, may be rendered more nourishing. Bark may be necessary after a while, and also other measures calculated to give tone to the general system, which is frequently much reduced by the previous treatment.

Mercury has been recommended by Mackenzie and others in the treatment of gonorrhœal ophthalmia. I have not myself given any trial to this plan. Mr. Lawrence states that he has seen both the ordinary purulent and gonorrhœal ophthalmia proceeding apparently unchecked under the full mercurial action, and he quotes the authority of Beer and Delpech in support of its inefficiency. On the other hand, he alludes to three cases treated by Hennen with mercury and large bleedings, and with perfect success. This practice was also advocated by Astruc, Swediaur, and others.

Some authorities, who adopt the view St. Yves, that the disease is produced by a sudden suppression of the gonorrhœa, recommend inoculation in order to re-produce the urethral disease. One of the most distinguished of these was Baron Larrey.* "If," says he, "the ophthalmia is

* Larrey's Memoirs.

the effect of a sudden suppression of gonorrhœa, after appeasing the local irritation by means of scarifications of the temples and anodynes, the patient should be inoculated for a fresh gonorrhœa, or an alkaline injection should be thrown into the urethra, which will supplant the original inoculation. This method," he concludes, "has succeeded with me in many cases."

THE END.