The treatment of syphilis / by J. L. Milton.

Contributors

Milton, J. L. 1820-1898.
Milton, J. L. 1820-1898
St. Thomas's Hospital. Medical School. Library
King's College London

Publication/Creation

London : R. Hardwicke, ..., [1875]

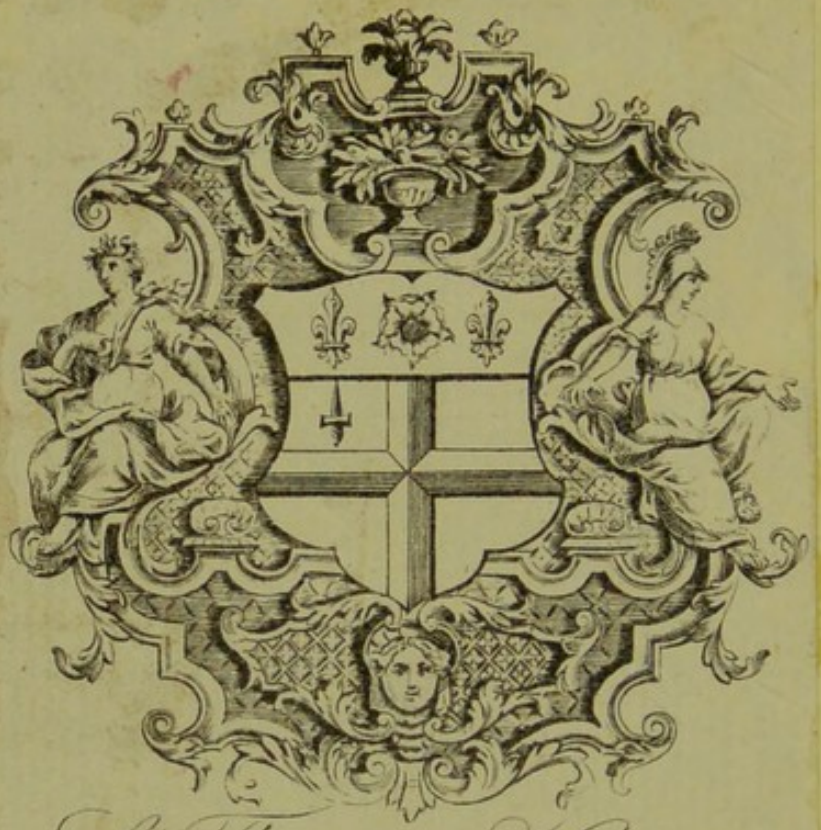
Persistent URL

https://wellcomecollection.org/works/rmda8fy6

License and attribution

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

MILTON ON SYPHILIS



With the compliments of the Author

TREATMENT

OF

SYPHILIS.

THE

TREATMENT

OF

SYPHILIS.

BY

J. L. MILTON,

SENIOR SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN

LONDON:

R. HARDWICKE, 192, PICCADILLY.

ERRATA.

PAGE 30, Note. For "Op. cit." read "Ricord's Lehre von der Syphilis."

PAGE 116, Note. After "Syphilitic Lesions" read "of the osseous System in Infants and Young Children." 1875.

PAGE 127, Note. After "Lesions" omit rest of sentence.

PREFACE.

—:o:—

The substance of the following pages is contained in a paper read before the Western Medical Society, afterwards inserted in the *Glasgow Medical Journal*, and in another written for, and published in the *Edinburgh Medical Journal*, for March, 1875. During the interval between these two dates the observations, on which the last mentioned memoir is based, were continued through great part of each year.

The work was announced sometime ago as ready for publication, and then withdrawn. The explanation of this is that, just as I thought I had pretty well completed the necessary investigations, some unexpected results in the action of the vapour bath, and certain improvements in the construction of it, came to light, which so modified certain conclusions previously arrived at, that there seemed no alternative but to wait till these had been thoroughly examined. The title then given to the work was the "Eclectic Treatment of Syphilis." In some of the advertisements it appeared as the "Electric Treatment," &c. The mistake is easily understood, but it was rather an unfortunate one, as there is not a single referencc to the action of electricity.

It will probably be objected that enough has not been said about the labours of others in this department. But the nature of the work did not admit of this. The book is a digest from practice, not a compilation, and consequently no references have been made except when they appeared absolutely necessary.

SION HOUSE,
KING'S ROAD, S.W.
October, 1875.

CONTENTS.

—:o:—

CHAPTER I.

CHAPTER II.

CHAPTER III.

TREATMENT OF SYPHILIS.

—o—

CHAPTER I.

TREATMENT OF PRIMARY SYPHILIS.

Treatment of Chancre.—The course of syphilitic sores may be said to offer a fair clue to their treatment. They heal by suppuration, and more or less absorption of the hardness; I know of nothing which so facilitates these two processes as the use of caustic; and therefore, when the patient will allow it to be done, cauterize every sore, hard or soft, alike.

Can Cauterizing avert Secondary Disease?—I need scarcely say that authorities are against this practice, and that the greatest incredulity prevails as to the power of any local means, however potent, to ward off syphilitic infection. Mr. Langston Parker says[1] he has effectually destroyed the sore within an hour after the patient has discovered it, and yet never were worse symptoms seen than in this very case. Mr. Lee says,[2] "Infecting sores, that have been destroyed on the very day of their appearance, have subsequently continued to spread, and have produced their natural consequences." Dr. Morgan tells us[3] that "careful ablution and the use of medicated and supposed disinfecting solutions, though applied within a moment after contact, have

[1] *Report of the Committee on the Venereal Disease*; 1868, p. 273.
[2] *Syphilis and Vacc, Syph Inoculation;* 1863, p. 36.
[3] *Nature and Treatment of the Contagious Diseases;* 1872, p. 18.

proved ineffective." Dr. Bumstead expresses himself[1] to much the same effect. He thinks it impossible that the cases mentioned by Ricord and Sigmund as successfully cauterized could, from their early date, have been properly diagnosed, and hence that we are not sure they would have infected the constitution.

Objections to Cauterizing Examined.—My observations compel me to reject these views; indeed, I feel strongly tempted to say that the practice is bad, and the reasoning worse. I will not go so far as to assert with M. Ricord that there is no authentic instance of a sore effectually cauterized within five days after connection,[2] a period which has since been narrowed to four days,[3] because statements to the contrary have been made by writers worthy of all belief; but I affirm, without any hesitation, that my own practice has never yet yielded a single case of infection where I have cauterized properly within a week after connection, and I have treated a pretty large number of men who had had intercourse under the most suspicious circumstances. Now, for reasons to be given in the following paragraph, some of these would undoubtedly have ripened into chancres, and consequently I think myself justified in assuming, that, as this did not happen, it was the cauterization that prevented it.

Dr. Bumstead's view of the case seems to me very open to question. It is true that we cannot, at the third or fourth day after connection, always, if indeed ever, distinguish a hard sore from a soft one; neither can we discriminate a sore which will turn into a chancre from one that will heal up in a few days of itself. I have examined these sources of mischief over and over again with a powerful lens, and failed to make out any diagnostic mark. But this does not touch the root of the question. If a large number of men, say a thousand for instance, have connection with prostitutes, we know that a certain number of them will suffer from abrasions. I am here not conjecturing or supposing anything; I am speaking simply of an invariable result of the occurrence. It is only with those contracting abrasions that we have to deal here, and it was only with them that Ricord and Sigmund had to deal. Of such abrasions it is, I believe, absolute

[1] *Pathology and Treatment of Venereal Diseases;* 1861, p. 406-7.

[2] *Traité Pratique;* 1838, p. 548.

[3] *Leçons sur le Chancre;* p. 206.

that, when left to themselves many will end in chancre, and of such chancres there will be a certain proportion sure to take on induration. This is the experience of every man who has studied the disease. Statistics may differ as to the proportion of hard to soft sores, but they agree in admitting a percentage of the former. For these reasons I am disposed to think, that out of the sores cauterized by the authors spoken of, some would inevitably have terminated in true infecting chancres.

No person really conversant with syphilis would expect, where the sore has acquired the characteristic signs of induration, to avert constitutional disease by the use of any caustic, however powerful; with certainty of diagnosis on this head comes only too often certainty of after-mischief. I am speaking of the intervening period when decision must be suspended, and when the best thing that can befall the patient is for him always to remain in doubt, and believe that the surgeon has cauterized him for a sore which might very well have been let alone. I therefore do not see that the objections of Mr. Lee and Mr. Parker apply here. As to what Dr. Morgan says about "supposed disinfecting solutions" failing, I can quite believe it; but I do not see that this has anything to do with the use of caustic.

Again, I cauterized a gentleman four times in five or six years, each time within five days after intercourse,—that is to say, it was never done later than the morning of the fifth day. The sores presented the usual appearance seen in such cases, that of an abrasion which did not seem disposed to heal. The last of these cauterizations was made with a fluid often strongly recommended for such purposes, the acid nitrate of mercury, in which I myself have great faith in the treatment of lupus, &c. The action was very severe, and the place took a long time to heal; the consequence was, that the next time the patient contracted one of these abrasions, he did not come till quite the twelfth or thirteenth day after infection, and when the persistence of the spot, as he called it, had begun to make him uneasy, and with reason, for it was a small, hard chancre developing. Being much interested in the case I sifted it, as I thought, to the bottom, but all I could learn induced me to believe that it had, so far as the patient could judge, up to the last two or three days, worn the same features and rnn the same course as the others.

But even if we must abandon all hope of being able to prevent secondary disease, we may yet, by a judicious use of escharotics, materially hasten the healing of the sore, although attended by induration. The tough, sticky secretion, when present, is got rid of, and the base and edges of the chancre are more rapidly brought to a healthy condition than without caustic. The sooner a sore is healed the sooner can the patient return to his ordinary work, and the less the chance of exposure. Besides, there are cases in which every day that a sore remains open it becomes a source of additional danger for other persons. I have often cauterized sores in men of unmanageable passions, who, but for this precaution, would very probably have communicated the disease to their wives. I have never known syphilis conveyed under such circumstances, whereas I have, unfortunately, several times known an innocent woman infected by a man who had not been cauterized ; and if I get the chance, I always make the chancre so sore that the patient must refrain. We know that it is very wrong for men to act in this way at all, but we equally know that they do act thus, and we must deal with human nature as we find it, not as it ought to be.

Cauterization not the Cause of Bubo or Secondary Disease.—I trust it is unnecessary at the present day to combat the favourite opinion among the public, that the use of caustic tends to bring on bubo and "drive the virus into the system." The rising generation of medical men have, I suppose, discarded such errors, but I am not certain that the belief is so thoroughly given up by all the older practitioners. Of this I am quite sure, that I have heard, both in conversation and in debates at medical societies, remarks that showed a lingering faith in these wonderful performances ; and I am not so much surprised at this, for I really believe that, with some men, a creed of this kind once taken up is not easily shaken. All the world knows that when a man has once suffered his mind to become tainted with one of the reigning superstitions of the day, he will live and die in his faith though disproved before his eyes ; but, indeed, such a person will seldom listen to any proof, except that which supports his own view. As, therefore, arguments against such a result from using escharotics are not needed by one side, and not valued by the other, it will be unnecessary to go farther into the subject

in a practical work, and I have only noticed it that I might not be supposed to have overlooked the matter.

Mode of Cauterizing.—Of all caustics I prefer the hydrate of soda. It should always be cast in a silver mould, a method, I believe, invented by a Mr. Button, formerly of Holborn ; at least, I know he claimed the invention as his. The disadvantages attendant on the old method of casting it are thus got over. It has the great advantage of not being so deliquescent as potass, so far as my observations enable me to judge ; and I have used it for many years, and in a large number of cases. I should say that it will do everything a caustic can effect in the direction required here, while it causes less pain, and is more manageable, than any powerful caustic that I am acquainted with. It is to be applied as follows :—

The end of a stick of the soda should be cut to a point, so that every part of the sore, however deep or jagged, may be reached ; the sore is then cleansed with lint, and the surface of it is brushed lightly over with the caustic ; immediately after doing this a stream of water is poured over the part. Cold water is almost always the most grateful to the patients' sensations. The operation is usually followed by a sudden, and for the time rather sharp, pain ; but for the most part this is of a very transient nature, whereas that brought on by Vienna paste, and often also by caustic potass as commonly employed,[1] as also in some persons by the use of acid nitrate of mercury, frequently lasts for hours, and is of the most severe kind. Whatever discomfort the soda may occasion is promptly allayed by the bathing ; in fact, it is almost always gone before the patient leaves the consulting room, and I never heard any one say that it occasioned any after-suffering. The sore is now simply dressed with a piece of lint or linen dipped in cold water. The surface acted on by the soda quickly becomes of a brown colour, and a free discharge of serum takes place from it ; but no notice need be taken of this, as it is generally the prelude to healthy suppuration, under which the sore, especially if a small, soft one, often heals up without anything more than cold water-dressing.

[1] *Nouveau Traité des Maladies Venerianus.* Par le Docteur Melchior Robert; 1861, p. 392.

Difference between Action of Soda and Nitrate of Silver, &c.—As lunar caustic is a favourite application with some, I take this opportunity of saying that it has always appeared to me utterly worthless, while it causes in proprotionally far more pain than the soda. Patients, who had previously had a sore touched with the nitrate, have noticed a great difference in the rapidity with which the two caustics brought about the healing process, the balance being largely in favour of the alkali. It has also occasionally happened that a patient with two or three sores, finding the pain caused by cauterizing the first one or two with soda rather sharp, has asked me to use something milder, and that I have then employed the nitrate of siver for the remaining sore, or sores; in every case the latter have healed up more slowly than the others.

Mr. Lane, in his paper on the treatment of syphilis read before the Harveian Society, December 4th., 1874, as I understood him, decidedly recommended the acid nitrate of mercury as an application here. As Mr. Lane is known to be an authority, his opinion will necessarily influence that of others, and I feel therefore all the more bound to express and defend my own objections to this remedy. It is not only far more painful than the soda, but a sore treated with it takes a great deal longer time to heal. The last time I ever used it was on a patient whom I had previously treated for similar cases with the soda, and whom I knew to be very resolute about bearing pain. This gentleman's account was that the acid nitrate caused him intolerable suffering, that for days he was in misery, and he begged of me, whatever I did, never again to use that "abominable stuff." In this case the soreness caused by the acid was three weeks in healing, whereas that produced by the soda scarcely ever with him, and I had used it four or five times, lasted more than four or five days to a week.

Necessity for Cauterizing Effectually.—If the operation is really to be a success, it should be done effectually, and at the first sitting. The cold water may be applied again and again, and the sore dried as often; but whatever trouble it may occasion, I would advise that every part of the surface and edges be touched, especially in the case of sores that have not been going on well, or are covered with a tough secretion, or threatened with pha-

gedæna. The pain may be severe, but as I have already said it is fleeting; and as anything short of complete cauterization is just as likely to be useless as not, I think that by far the best plan is to do it properly, or not at all. One effectual operation will often save the patient a great deal of the irksomeness, confinement, and expense which attend the long continuance of a primary sore.

Subsequent Treatment.—In a day or two it will be found that the uppermost layer of the ulcerating surface has been, so to speak removed, for it is principally the secretion, which played the part of this, that has been destroyed by the soda; at the same time the edges of the sore are becoming sharp and clear, and generally in three or four days suppuration, except in very indurated chancres, begins to show itself. Water dressing may from the very first be freely applied, in addition to which the patient should irrigate the sore well three or four times a day by means of a rag dipped in hot water, and held at such a height above the part that the water falls with considerable force upon it; or a bottle filled with hot water may be used, a notch being cut in the cork, so as to let a stream, the size of a quill, run out. The great aim is to wash away the secretion as fast as possible, and very often this cannot be done by mere bathing. Sometimes a little aching is caused at first by the weight of the water, but in this case it is only requisite to stop the process for the time being. In short, the drawbacks are so slight compared with the great benefits attendant upon the practice, that I distinctly advize it should never be omitted. So soon as suppuration has well set in, astringent lotions, such as a weak solution of copper,[1] may be used during the day, and the sore may be smeared at night, after careful cleansing by the aid of lint, with benzoated zinc ointment, previously melted.

When there is much inflammation a lotion of subacetate of lead, or of lead[2] and zinc, may be freely employed, but very frequently water dressing is the only thing required. Prescribing

[1] I subjoin a formula

℞ Cupri sulphatis gr. vi. (ad ix.)
Aquæ rosæ ʒiii. ℿ ft. lotio.

[2] ℞ Liquoris plumb subacet ʒij.
Aquæ sambuc ʒvi.
℞ Liquoris plumb. subacet ʒi.

a lotion has, however, this advantage, that the patient will probably use it more regularly than he would any such simple and cleanly remedy as plain water.

If, after a few days, the base of the ulcer still remain covered with tough secretion, or if the sore itself threaten to spread, the soda should be applied again, but very gently, and only to those parts where the ulceration is extending, or which are overlaid with secretion. Any farther resort to it is rarely called for in the milder forms of soft, and many cases of hard, sore ; but an obstinate hard sore or phagedæna may demand five, six, or even more applications. Until the whole surface has taken on healthy action I would advize that the use of the caustic should be kept up. When the sore has become stationary, and still more when it has begun to contract, with a pale blueish tinge on the edge, extending inwards, the time for caustics has passed away, and the dressings mentioned in the preceding paragraph may be resorted to. If the base of the sore rise above the level of the skin, a mild escharotic, like the sulphate of copper in solution, can be applied, or the part may be touched with nitrate of silver. The diet should be as light, and the patient should remain as quiet, as possible.

Treatment of Pain, &c.—When pain, lowness of spirits, and bodily prostration accompany chancre, whatever form it may assume, a sedative should be given without delay. I need, however, scarcely say that in many cases of indurated sore the patient rarely makes any complaint on this score. Along with the sedative a stimulant may be given ; however contradictory this may sound in theory it works well in practice. A good dose of morphia every three or four hours, accompanied by ammonia,[1]

Zinci sulphatis, gr. xii.
Essent camphoræ ʒj.
Aquæ sambuci ad ℥vi. ℿ ft. lotio.

[1] ℞ Morphia bimeconatis gr. i. (gr. iss.)
Ammoniæ carbonatis gr. xxx.
Syrupi zingib ʒii.
Tinct. chiratæ ʒiii.
Infus cascarillæ ad ℥vi. ℿ

Cap. coch. amp. duo tertiis horis. Orangepeel tincture may be substituted for cbirata.

does more good in such cases than any medicines that I am acquainted with. As to the amount it must be adapted to the symptoms, and therefore, although the quantities pointed out in the prescription below, may be looked upon as suited to average constitutions and average cases, they are not set up as standards to be implicitly followed. The pain must be reduced however high the dose has to be raised.

Treatment of Particular Forms of Sore; Indurated Chancre.— Having stated this much as to the general principles on which chancres are to be dealt with, I proceed to add a few words on the management of each particular form, and first of all of the hard sore. But inasmuch as a good deal of what I have to say here is intimately connected with the subject of the mercurial or simple treatment of syphilis, it will perhaps conduce to a clearer understanding of the points involved, if I take all this part of matter up when I come to speak of secondary disease. There are, however, some points which may be touched upon here.

When the sore heals slowly, and the patient is beginning to get dissatisfied, it is sometimes desirable to try and expedite the process, and for my own part I know of nothing which so rapidly and surely effects this as mercury. No doubt the sore will get well under simple treatment. It is not from any distrust of the powers of the constitution to effect this that I recommend mercury, but because there are cases where the surgeon must use it with the view of getting the hardness absorbed, or else lose his patient, who does not always appreciate theory, and wishes to be cured a little faster. In such cases he may safely prescribe a small quantity of proto-iodide of mercury or grey powder, and if he feel any dread lest the action of the mineral should get at all unmanageable, he can generally keep it well in hand by occasionally ordering a saline aperient along with it.[1] When the

[1] ℞ Hydrargyr iodid. virid. gr. vi.
Extract. anthemid. ʒii.
Olei carui ♏ i ♏ ft. pil. xii.
Sumat. i. bis (ter.) quotidie.

℞ Hydrargyri cum cretâ. ʒii.
Divide in pulv. xii. Capiat i bis quotidie.

℞ Magnes. sulph. ʒiii.
——— calcin. opt. ʒi.
Potassæ. nitratis. ʒiss.

tongue is coated a mineral acid with some bitter may be prescribed.[1] Should the patient have a great dread of mercury, iodide of potassium may be tried; in some cases it seems to accelerate the removal of the hardening; in others it is nearly, if not quite, inert. It can be given in some bitter mixture.[2] I have repeatedly seen sores of this kind, when almost stationary, at once take on a much more healthy appearance under the use of tartar-emetic, given to such an extent as to cause nausea and sometimes slight vomiting.

Treatment of the After-Hardening.—Beyond these I know of no remedies which are particularly called for in the early stage; the subsequent induration will, however, often claim attention, for there is good reason to believe that it is sometimes a source of danger. When the hardening is sluggish, tincture of iodine may be tried; it should be painted over the part as often as the patient can bear it. Thus used it sometimes does good, but acts very slowly. Or the spot may be touched with concentrated tincture of cantharides, a solution of cantharidin in glacial acetic acid[3], or Bulliu's blistering fluid. White precipitate ointment, or red iodide of mercury ointment, just strong enough to occasion slight vesication, are also serviceable. It should not be forgotten that this hardening may attain a size quite calculated to alarm a nervous patient. I have seen it reach the bigness of a nut. Dr. Colles speaks[4] of one as large as a filbert, and

Syrupi zingib. ʒii.
Aquæ cinaam. ad. ℥vi. ℿ
Capiat cochlear. amp. duo (tria.) omni mane.

[1] ℞ Acidi nitro-hydrochlor. ʒiss.
Syrupi flor. aurant ʒiii.
Infus. calumb. ad. ℥vi. ℿ
Capiat. coch. amp. duo bis. quotidie.

[2] ℞ Potassii. iodidi. ℈ii. (ʒi.)
Syrupi aurantii. ʒiii.
Tinct. chiratæ ad. ℥iss. ℿ
Cap. coch. miu. i ter quotidie ex aquæ cyatho vinar.

[3] ℞ Cantharidin. gr. ii.
Acidi acetic. glacial. ʒiv. ℿ

[4] *Practical Observations on the Venereal Disease;* 1837, p. 92.

Mr. Holmes Coote has recorded[1] another as big as half a walnut. Now and then it happens that this sore shows itself in the shape of a small perforation, or a little cleft in the centre of a dense induration. This is a state of matters so opposed to the lay idea of a chancre, that the patient possibly rejects the supposition of its being anything of the kind, and refuses to let the surgeon treat it as such; or it occasions so little inconvenience that he does not seek advice till it has healed, and then the induration is the only thing to be attended to. The bubo accompanying this kind of sore demands no special notice here, and will come under notice farther on.

Eruptions on the Glans Penis.—Sometimes after indurated, and possibly indeed after other kinds of chancre, the patient is surprised to notice an eruption of spots on this part and the inside of the prepuce. They make their appearance in the form of small, bright red papules; when on the inside of the prepuce they yield a sero-purulent secretion. At other times small masses of tenacious, yellow matter are deposited on the surface of the glans, apparently in shallow pits, the expanded orifices, I assume, of the sebaceous follicles, adhering firmly, and when detached, which is only done with difficulty, leaving small, clean excavations. Both these slight affections may safely be left to themselves; if treatment be considered necessary, a simple wash may be ordered and a purgative given. Except that antacids have some slight power over these symptoms, it may be doubted if they do not disappear almost as fast through the unassisted efforts of the constitution as under any system of treatment. I have never seen these eruptions except where the foreskin at least partly covered the glans, and could be at the same time retracted. They do not seem necessarily connected with secondary disease, but owing to the inattention of the patients, I have in many cases not been able to follow the history farther.

The fissured, hard and tender state of the prepuce, sometimes brought on by primary sore, is often relieved by painting with tincture of iodine. The thickening, which remains, yields to no local treatment that I have seen used so fast as bandaging with

[1] *Report of some of the more Important Points connected with Syphilis*; 1857, p. 89.

a narrow slip of linen or soft calico. The first turn of the bandage is passed lengthwise from the dorsum of the penis over the free end to the under surface, turned, and then rolled pretty tightly over the swelling. It is easily kept on by tying it with a piece of soft worsted or a thin india-rubber ring. Of course it must be loosened when the patient makes water.

Treatment of Soft (suppurating) Chancre.—The primary sore of simple syphilis (chaucroid) cannot be healed too quickly. The longer it remains open the more do the chances of destruction of tissue and danger of suppurating bubo increase. Fortunately enough the care of it is in most cases, where the patient applies early enough, a very simple affair; the gentle application of caustic soda, free irrigation, water dressing, and a weak astringent lotion being pretty well all that is necessary. As to the kind of lotion, I know of nothing better than the sulphate of copper solution already recommended; indeed, the variety of lotions suggested by different authorities for chancre is calculated to excite doubt whether one possesses much more power than another; if it did, we might suppose that among so many formulæ one or two would, by natural right, have acquired a superiority. When the progress of this, or indeed any sore, is very slow, warm aromatic dressing may be applied. The reader will, I hope, excuse me for not giving formulæ for these, or going into a learned disquisition about their descent downwards from the days of Hippocrates, whose myrtle boiled in wine possibly typifies as good a prescription as we possess. Such compounds have always been favourite remedies, and perhaps modern research has not improved very much on what the rude sagacity of ancient times furnished. So long as these preparations possess balsamic properties and some aroma, they seem to fulfil every indication. I know of nothing better than the compound tincture of benzoin. If there be much foetor, a weak lotion of carbolic acid or chloride of zinc may be used.

Internal Treatment.—This should, to use a rather elastic phrase, be regulated on general principles; that is to say, any particular and visible disorder is, as far as possible, to be set right by the same means which would be used if no chancre were present. Thus, if the tongue be coated, dilute phosphoric, or some mineral, acid may be given in any suitable tincture or infusion, consti-

pation is to be overcome by gentle aperients, such as the pill prescribed below,[1] and the saline at page 9, or the aperient for which I give a form,[2] while for depression and lassitude the ammoniated tincture of valerian can be resorted to. When the sore is inflamed, salines containing tartar emetic, or antimonial wine, and sedatives may be given. The diet should be light and unirritating, as, indeed, it ought to be in every form of primary sore, stimulants of all kinds, except a little light wine, being prejudicial. Besides, those most liable to catch syphilis are generally in the habit of taking quite as much in the way of stimulants as is good for them, and are all the better for a little abstinence. Rest, particularly if the sore be painful, should as far as possible be observed.

When internal treatment, such as that laid down in the preceding paragraph, has had a fair trial, and the sores still continue sluggish, I never hesitate to give mercury; not with the view of averting secondary syphilis, for under the head of soft chancre I include only the multiple, auto-inoculable sore, which, in my experience, has never yet been followed by constitutional disease; and I may perhaps, once for all, observe that I purposely abstain from all discussions on such subjects as the unity or duality of syphilis. The mercury is therefore resorted to solely with the view of hastening the healing of the primary lesion, which, unless I have deceived myself, it often does. I am acquainted with no better form than that of the proto-iodide already prescribed. A pill of this kind, taken two or three times a day, sometimes quickly produces a favourable change in a sluggish chancre, the edges growing clean, and the area of the sore contracting, under its influence.

Treatment of Suppurating (inoculable) Bubo.—The management

[1] ℞ Pil. coloc. compositæ, gr. xv.
— hydrargyri, gr. v.
Extract. hyoscyam, gr. x., ℳ ft. pil. ℳ vi.
Sumat i., pro re natâ horâ decubitus.

[2] ℞ Potassæ sulphatis, ʒi.
Tinct. aurant, ʒiii.
Infusi rhei, ʒiii.
— calumbæ ad. ʒvi. ℳ.
Capiat coch. amp. duo bis quotidie.

of the glandular swelling, which so often accompanies this form of sore, is often a much more difficult matter than that of the chancre. Neglected, or unskilfully managed, bubo may here mean severe pain, irksome and prolonged confinement to bed or a couch, a painful operation followed by the forming of a ragged-looking, repulsive ulcer, and an indelible, unsightly scar, phagedæna and sloughing of the most severe and intractable nature, which may even end fatally.

Extensive Ulceration from Bubo (creeping Bubo).—I could easily heap up evidence in support of this statement, but I purposely confine myself to a few instances. Mr. Hunter relates[1] a case where the ulceration from two buboes spread in all directions, almost as high as the navel, and down each thigh. The patient died, after three years of suffering, from an overdose of henbane taken to relieve the pain. Handschuh one, where the disease made such ravages that the vermicular movements of the intestines could be seen. Robert quotes[2] from Fournier a case where, in spite of the most energetic treatment, the ulceration had lasted eight years, and had spread over the whole inguinal region, extending to the loin and buttock, and then down the thigh to the knee. Dr. Colles relates[3] one in which the cicatrix reached from the anterior spine of the ilium down the groin to the back of the thigh, joining there a "prodigiously extensive ulcer," stretching from the anus over a third of the back of the thigh, covering, at one part, the whole breadth of the posterior surface of the limb. Mr. Solly, who I believe first gave the name of creeping bubo to this affection, mentioned, in a paper read before the Medico-Chirurgical Society, some frightful instances of mutilation. Fatal peritonitis has been known to result,[4] and Mathias speaks[5] of death from this cause, as though it were a common occurrence, and one attributable to the action of the mercury; for which reason he, like many other

[1] *Treatise on the Venereal Disease*, 1786; p. 284.

[2] *Op. cit.*, p. 416.

[3] *Op. cit.*, p. 105. The disease seemed to he cured by friction with mercurial ointment.

[4] *New York Journal of Medicine*, N.S. Vol. V., p. 169.

[5] *The Mercurial Disease*, 1816, p. 95.

practitioners, advised that the use of mercury should be suspended from the time that a bubo was opened till the healing process had thoroughly set in.

In a contribution to the "Lancet,"[1] one of my earliest papers, I gave the particulars of some very bad cases. In one, Mr. Lloyd, of St. Bartholomew's, was obliged to tie the external iliac, after the progress of the disease had several times placed the patient's life in danger. Secondary hæmorrhage occurred five days after the operation. A patient under the care of Mr. John Simon, at about the same time, was brought into almost as great peril; the femoral artery was laid bare by the ulceration, and so urgent was the danger of fatal bleeding, that for a fortnight watch was kept night and day at the bedside, the clothes being so arranged that pressure could be applied at once.

The artery did not give way, and, indeed, I believe it rarely does; still, the laying bare of a vessel like the femoral is so serious a matter as to make every one dread it. One of the worst features in such cases is that treatment has so little effect in staying the mischief, and that the physical appearance of the patients, their habits, &c., instead of forming any guide to treatment, are only calculated to mislead us. I collected at one time the histories of several cases where the patients were months in hospitals, and of course under the care of able and experienced surgeons, and where many of them were country people of healthy look, and, so far as could be learned, of temperate habits, just the last sort of persons, one might think, to be the victims of such a disease, who had come up to London in the hope of getting rid of their relentless malady. I myself know of no signs which can lead us to anticipate that phagedæna will appear in any given case, and as to this untoward occurrence being due to the air of a foul ward, the use of mercury, dissipation, fatigue, irritation, and possibly advanced age, as has been suggested at different times, I think it is pretty clear that, however important may be the part which such agencies play in the production of sloughing, the chief factor in serpiginous ulceration must be sought for in the constitution of the individual. A certain amount of such action not unfrequently showed itself when

[1] 1853. Vol. II., p. 239.

friction was almost universally resorted to,[1] but the stubborn affection seems to occur quite independently of mercury.

Creeping Bubo due to Soft Sore.—So far as I have been able to make out, this intractable ulceration only attacks the bubo of simple syphilis, and consequently treatment need not be in any way directed toward averting constitutional disease. The local affection is the one thing to master, and if it can be mastered by one sharp application from without, no auxiliary means are called for. The proof as to the origin of bubo is, I admit, defective, and cases have been mentioned which tell against it. Again, no history of the disease worth trusting to in this respect was preserved in some of the cases. Still, while I have never traced this form of bubo to true hard sore, I have in some cases been able to affiliate it to chancroid. The reader is, however, to understand that I am speaking here of cases under the care of others. I have not had such an accident begin in my own practice, and when the disease gets bad a patient generally enters a large hospital, and is lost sight of. Lastly I may observe, in support of the view just broached, that chancroid is essentially the form of sore which is followed by inoculable bubo, and that this form of bubo is, at any rate, sometimes inoculable

Danger of driving back Bubo questioned.—Although such extreme cases are rare, they still figure often enough in the records of surgery to make the medical attendant fear every step likely to lead to such a contingency; yet there are numbers of the profession who fear this, and even more frequent, if slighter, dangers, less than the indefinable mischief of driving back a bubo; what is more, I do not see how any other interpretation is to be put upon views occasionally emanating from men looked up to as guides in the disease under our our notice. M. Robert, a distinguished pupil of M. Ricord, asks[2] if we are to order rest for an inflamed bubo, when it is just the state in which the absorbents greedily take up the fluids in which they are bathed, and that for his part, seeing that walking and labour tend to inflame the tissues which support the chancre, to inflame the lymphatics and their ganglia, and that inflamed tissues absorb less than

[1] *Observations on Morbid Poisons.* By Joseph Adams, M.D. 1807, p, 82.

[2] *Op. cit.*, p. 436.

healthy ones, he should be almost tempted to recommend walking, laborious exercise, and irritating dressings! What does this mean in substance but that suppuration is the natural mode of eliminating the virus, and that it should not be checked? Such is the conclusion to which a firm and honest belief in the unity of syphilis logically enough brings an unusually conscientious and truthful observer!

Possibility of doing this Examined.—But if there were really any danger in checking the suppurating bubo of soft chancre we cannot, in the vast majority of cases, incur it if we would. The storehouse of surgery contains no means which enable us in most cases to effect such a purpose, and those usually resorted to are, to the best of my observation, powerless; a fact, indeed, amply admitted by those who have had the best opportunities of judging. Mr. Henry Lee,[1] M. Ricord,[2] and many other writers tell us that all attempts to avert suppuration here are futile. I have seen trial made of anti-phlogistic measures, including leeches, to the extent of twenty or thirty, calomel, antimonial wine and powder, digitalis, purgatives, and low diet, without any real success. As to leeches, my observations lead me to believe that they do not exert the least control over the inflammation. Mr. Judd mentions[3] a case where he put fourteen leeches on a bubo, and gave the patient six grains of calomel, followed by a black draught; yet, though the leech bites bled till the patient fainted, the abscess continued to form, and opened. Tartar-emetic, by far the most potent agent that I know of for controlling suppuration, is often inert here.

Nor are strong external applications, such as rubbing over with nitrate of silver, painting with a solution of this salt, or strong tincture of iodine, more efficacious. They may arrest suppuration in primary, sympathetic or indolent bubo, many cases of which would get well of themselves; but the progress of inoculable bubo towards suppuration, when once fairly set going, defies their power. And if they deserved all the credit at any time claimed for them, most of them are so violent in their action that it is very doubtful if they could ever be generally introduced.

[1] *Op. cit.*, p. 19.

[2] *Lettres sur la Syphilis*, 1863, p. 324.

[3] *A Practical Treatise on Urethritis and Syphilis*, 1836, p. 404.

The solid nitrate of silver is by no means the most severe, yet I have known a patient lie writhing on a sofa for two hours after having a bubo well rubbed over with it. Perhaps the method proposed by M. Guerin,[1] of applying one blister after another, is as good as any, yet I feel very doubtful whether it ever yet checked suppuration that had once really began in a virulent bubo.

The most severe of all these methods is, I believe, that of blistering the bubo and then painting the surface over with a solution of corrosive sublimate twenty grains to an ounce; a method I think first introduced to notice by M. Malapert, and to the best of my judgment as unreliable as the others. Mr. South might well call it rather "sharp practice."[2] Judging, too, by what M. Robert says[3] of the method employed by M. Pirondini, blistering the bubo, and then laying on the surface strips of lint soaked in tincture of iodine, it is just as objectionable as the others. The pain is often so great that the patients cannot bear the iodine dressing to be applied, and the case is sometimes followed by obstinate fistulæ and great deformity. Mercurial inunction, recommended by some surgeons, makes such a filthy mess that only success could justify its use; but so far from being calculated to achieve any success, I believe it to be powerless. As to statistics showing the success of any of these methods, I may once for all observe, that unless they comprized such a number of cases of bubo following upon soft sore as must necessarily include some instances of a strictly virulent nature, they could only lead to error.

Pressure.—Perhaps the worst mode of treatment ever yet imagined for this kind of bubo is pressure. Occasionally in indolent bubo, for which I believe it was originally devised, it may be of use; very likely it may do good in sympathetic bubo; but in the suppurating form it has been productive of most troublesome symptoms, such as extensive formation of matter under the skin, or a thickened, hardened state of the cellular tissue and derma, both of which I have found great difficulty

[1] *A Treatise on Syphilis.* By Walter J. Coulson. 1869, p. 59.

[2] *A System of Surgery.* By J. M. Chelius. Translated by J. F. South. Vol. I., p. 660.

[3] *Op. cit.*, p. 448.

in removing. Even much more serious results have followed.[1] The suggestion to divide the affected lymphatic and pump out the pus seems much more practical, while it has the advantage of being more in accordance with theory; how far it has succeeded, or whether it is even still kept up by the gentleman who first recommended it, I have no means of knowing.

Tartar-Emetic in Suppurating Bubo.—To my mind there is no remedy which exerts so much control over bubo when tending to suppurate, and indeed over every kind of abscess, as the internal use of tartar-emetic. True, we cannot always, even by the most resolute and unsparing use of it, entirely avert the formation of pus; but there is reason to believe that we can do so sometimes, and we can, by its aid, generally limit the mischief and relieve the attendant symptoms. Where it will not effect this I know of medicine that will, and the surgeon who prescribes it does all that art can do. In order, however, to make the action of this salt efficient, it must be given freely, resolutely, and regularly.[2]

Dose and Mode of giving Tartar-Emetic.—To order a grown person the usual quantities, a twelfth or even an eighth of a grain, seems to me waste of time. I never saw such doses produce any appreciable effect on the suppuration; indeed, I think that, from numerous experiments, a digest of which is contained in the paper in the "Lancet" just referred to, I am justified in saying, that for this purpose less than half a grain cannot be relied on, and I always begin with two-thirds or three-quarters of a grain.[3] With a dose of this strength there is some chance of doing good, while any nausea from it hardly lasts longer than that caused by smaller quantities, and does not always happen; but when it does, the patient will almost certainly soon be rewarded by some alleviation of his sufferings, if he can only be induced to conquer the repugnance which this symptom and vomiting bring on, and keep up the use of the medicine till toleration is established,

[1] On the Treatment of Bubo. By the Author. *Lancet*, 1853, Vol. II., p. 239.

[2] See a Paper by the Author. *Lancet*, 1850, Vol. I., p. 253.

[3] ℞ Antimon. potass-tart. gr. iv.
Syrupi rhœad. ʒ iii.
Mist campbor ʒvj. ℿ.
Capiat cochlear. amp. duo tertiis horis.

which will generally be the case after the third dose at latest. The surgeon will, however, sometimes find that it requires all his powers of persuasion to get over the difficulties of this stage. His grand argument must be that if the action of the medicine be very unpleasant, the results of dispensing with it are still more so; that if he do not persevere he must lay his account to a continuance of the pain, the bursting of the bubo, a large, open, filthy sore which may lay him up for weeks, and an ugly scar which is perhaps not the least of these evils.

Above all things the antimony, once begun, should be given continuously. The nausea stops far more quickly than if a respite be allowed; and if toleration be set up it can generally be maintained, even under increasing doses of the medicine, without any great difficulty. But if the medicine be left off the chance of maintaining this toleration is lost, and the patient must either go through all the nausea again or the abscess must run its course.

I have rarely found it necessary to give anything with the antimony. If the pain be very great, the addition of a sedative, such as opium, may be called for, and in this case I have now and then added Battley's liquor opii to the prescription just given; but generally the frequent repetition of sedatives disturbs the patient's stomach and makes him feel ill, so that, if I can, I withhold them. A purgative is sometimes necessary when the bowels are confined; in this case the surgeon's aim is easily attained by adding a drachm or two of tartrate of soda and potass to each dose of the mixture; so soon as the bowels are relieved it can be suspended.

There are certain adjuncts to this treatment which may always be resorted to with advantage, and which, in obstinate and threatening cases become indispensable. They are proper diet, rest, and the use of hot water externally, ice and cold lotions; and I may remark that what I have to say on the first head is applicable also to the parent sore.

Diet.—If the patient be really in earnest, really disposed to second the surgeon's endeavours to bring the disease under control, he can scarcely give a better proof of his good faith than by keeping to a low diet, and, with rare exceptions, avoiding stimulants, especially beer in any shape. He will err on the

safe side by living too low rather than by leaning the other way. All the arguments usually brought forward about keeping up the strength, not withdrawing too suddenly a stimulus to which the constitution has long been accustomed, whether urged by the patient or his medical attendant, are only so many excuses for self-indulgence on the one hand or routine on the other. I deliberately say, that I never yet saw anything beyond the loss of mere animal enjoyment result from leaving off stimulants in these cases, and certainly, if weakness do result from a deprivation of this nature, much more would be entailed by the disease getting the upper hand.

Rest.—To avert suppuration the patient must rest. It is useless trying to cure most cases of suppurating bubo, or even to limit the inflammatory process, unless this precaution be taken. Supposing, however, this essential point has been gained, the surgeon may direct that the bubo be scalded by means of a flannel tied up into a ball, fastened to a piece of firewood, and dipped in almost boiling water. The superfluous fluid is dashed off with a single shake, and the flannel is applied lightly several times in succession. By this means a much greater heat is attained, and with much less discomfort than when the hand has to be dipped into the hot water. Warm water, however, has always appeared to me useless, and simply to do no harm; to give any ease and do any real good, it must be nearly at boiling point.

After the swelling has been thoroughly scalded it should be covered with a small bladder half full of broken ice. If no ice can be procured, an evaporating lotion[1] may be substituted, but it is far less efficacious; ice is the thing. The lotion should be applied by means of a single fold of linen. Nothing more effectually defeats the purpose for which it is ordered, than to lay it on in a thick, crumpled heap of cloths. It may look unscientific to use ice or cooling lotions after scalding hot water; very probably it is highly so. The really important part of the matter, to my thinking, is that it affords greater relief than any other that I am acquainted with.

The dose of the tartar-emetic is to be steadily increased, every

[1] ℞ Spiritus ætheris, ʒ vj.
Liquoris ammoniæ acetatis, ℥i.
Mist. camphoræ ad ℥viii. ℿ ft. lotio.

day, till either the abscess has opened or resolution has quite set in. Should the surgeon be so fortunate as to obtain the latter result, the medicine may first be remitted gradually, and then given up in favour of the iodide of potassium, either used singly or, as I prefer it, in combination with liquor potassæ,[1] while the lump should be painted daily with strong tincture of iodine, or it may be blistered.

Time at which a Bubo ought to be Opened.—But in addition to the numerous cases where all attempts to resolve the bubo fail, there are also many in which we do not see the patient till suppuration is inevitable, and then the question resolves itself into the best method of opening the abscess. In my opinion a bubo should never be allowed to burst, as this is certain to be followed by an unnessary amount of suffering and irremediable deformity. At the same time I equally think that it ought never to be opened till fluctuation is unmistakeably present. I have seen cases where sinuses and phagedæna ensued from neglect of this precaution ; the history, too, of other cases has shown me that early incision had very probably paved the way for these complications. Sinuses thus set up are occasionally of a very obstinate nature. I have sometimes failed to cure them with every ordinary remedy —acid nitrate of mercury, injections of different kinds, setons and incisions. That this obstinacy is in some cases due to the hasty opening, and not to the constitution, seems to me pretty certain. I had under my care a patient with two buboes, to all appearance resulting from simple sore ; one, which was opened after fluctuation had become quite evident, healed up without a bad symptom ; the other, which was the first of the two to form, and which was lanced at an earlier stage, was followed by a fistula which defied all the skill of the surgeon who opened it and mine too.

Mode of Opening.—The method of opening a bubo by caustic

[1] ℞ Potassii iodidi, ℈i. (ʒss.)
Liquoris potassæ, ʒiss.
Syrupi aurant, ʒiii.
Infus. calumb. ad ℥vi. ℿ.

Capiat coch amp duo bis quotidie. The medicine is rendered more palatable by substituting, at each dose, half a tumbler of milk for the syrup and infusion.

is most objectionable. Bad as it is to let a bubo burst, I think it is better surgery than resorting to caustic. The potassa fusa, the staple means for effecting this object, is a most unmanageable remedy, and the nitrate of silver, while it occasions severe pain, does not, so far as I have been able to observe, really favour the opening of the abscess. To free incision I object quite as strongly; it causes most unnecessary pain and disfigurement; the very mention of it frequently deters the patient from having the abscess opened at all, and it permits free access of air to the interior of the cavity, a most undesirable result. Besides, however large the opening may be, it often fails to secure the object it is principally intended to effect, free evacuation of the pus and avoidance of sinuses.[1] Some authors put great faith in the method, avowedly for the reason that burrowing is less likely to follow; but my experience does not in any way harmonize with this view. I have repeatedly seen matter form again underneath the skin after a very free opening.

Subcutaneous Puncture of Bubo.—By far the best method, that I know, of opening an abscess of this kind is the following: So soon as the presence of matter is ascertained a small lance-headed needle is inserted in the lowest part of the abscess from which it can be made to reach the focus of suppuration, and pushed up into this. When fairly in, gentle pressure is made with the forefinger of the left hand on the cavity, and kept up while the needle is withdrawn. Generally a small stream of pus follows; if it do not, the needle should be introduced in another place, and the same manœuvre gone through again. If this also fail, no more need be attempted that day, as the operation usually relieves the tension, and often in the course of the night a little matter makes its way out. Supposing it should succeed, then, when all the pus is expelled which very gentle pressure will bring away, the wound is immediately closed by placing a small piece of lint rather firmly over it. Above this is fixed a small compress of lint secured by a bandage, the object being, as far as possible, to prevent the access of air into the cavity. The reader will observe that this is a very different process from the

[1] "Occasionally it happens, that whatever be the size of the opening, the pus will burrow and sinuses will form."—South's *Chelius*, Vol. I., p. 659.

merely small opening recommended by the late Mr. Langston Parker.

Subsequent Steps.—The next day the swelling will be as prominent as ever, and must be opened afresh. The secretion of pus has as yet hardly had time to moderate, but generally by the third or fourth day there is a diminution in the amount, and the contents of the cavity are found to be principally clear fluid (lymph ?) with a little pus. Usually, too, by this time great relief has been obtained, the pain and lameness have abated, and the redness has lessened. After this the puncture is only repeated every third or fourth day, or, at any rate, as seldom as possible, a smaller quantity being yielded each time in consequence of the cavity contracting. Some of these punctures may ulcerate a little, but this process scarcely ever proceeds to any great extent, the mark left by it being usually not larger than a split pea or a small haricot bean. All the dressing these places require is a little wet lint. One proviso, however, is that the patient do not meddle with either the abscess or the dressing. Some persons are never easy till they have squeezed out a little more matter, and so sure as they do ulceration follows.

This plan has answered very well in the hands of others besides my own, and in all forms of suppurating bubo. Mr. William Adams, in an oration delivered several years ago before the Medical Society of London, said that Mr. South, in the six years that he had followed this plan on my recommendation, at St. Thomas's Hospital, had scarcely had a single failure; the late Mr. Langston Parker wrote to me expressing his favourable opinion of it, and other surgeons, who had seen the plan tried, have entirely given up large incisions.

Treatment of Open Bubo.—Occasionally we meet with bubo at a still later period, that is to say, after it has burst, when it appears in the shape of a nasty, unhealthy looking, suppurating cavity; the sides and bottom besmeared with dirty lymph and pus. At this stage it is worth while, if the patient will allow it, to inoculate the fluid from the bottom of the cavity, as if it produce the characteristic pustule, he may make up his mind pretty easy about the risk of having constitutional symptoms from this attack; at least such is my experience.

Many surgeons treat open bubo with very sharp means, such

as rubbing over the inside of the cavity with some escharotic, or filling it up with cantharides powder, paring the edges, applying strong nitric acid to more or less of the suppurating surface. To my thinking the following plan is simpler, cleanlier, less painful, and more efficacious.

Method Recommended.—The bowels are kept open and the tongue clean by any mild aperient the reader likes, and the use of some mineral acid and bitter, such, for instance, as that prescribed at page 10, or phosphoric acid in the same vehicle, or some preparation of steel, of which there are so many suited to the purpose that I need not enumerate them. Irrigation is practiced at least twice a day, the water being allowed to fall right into the cavity from as great a height as is practicable, so as to wash away all the secretion that can be got rid of. A dossil of lint is then placed in the opening and kept fixed by a bandage, so arranged that pretty free pressure is made on the *lower* part of the cavity. These means will generally lead to amendment, if not to a cure.

But should progress not be satisfactory, a blister may be applied over the whole of the diseased surface, and for some distance round the edges. Some medical men dread a blister coming in contact with tissues in a state of ulceration, and some patients think the proceeding needlessly severe. To meet these objections a strip of lint can be placed over the opening in the bubo over which the blister is then laid; there is however nothing to fear from the action of cantharides on the base of the cavity. I have repeatedly blistered here, and in moderately acute ulcer of the leg, without anything in the shape of bad results. A blister thus applied, and kept on till it has set up decided action, will often materially hasten the healing of the sore. When the edges are getting healthy and drawing together, it is a good plan, if they are irregular and the patient will allow it, to trim and approximate them; at an earlier period this plan is apt to be useless. Some authors recommend, when the gland lies loose in the cavity, to cut it away as the shortest way of dealing with it.[1] I see nothing objectionable in the practice, but I have never found it necessary. Simon, of Hamburg, in the refractory ulceration of bubo, virulent or not, strongly recommends[2] calomel in rising doses; nine

[1] Lee; op. cit. p. 114; Bumstead; op. cit. p. 444.

[2] *Op. cit.*, p. 173.

grains in six and thirty pills, four to be taken the first night, and one more each night till twelve are reached. Wallace speaks[1] highly of vesicating the diseased skin, and even the sound integument for some distance round, with nitrate of silver, every three or four days.

Sinuses.—If the surgeon have had the case under his care from the outset, and if the patient have fairly seconded his efforts, burrowing ought not to happen, or at any rate very rarely. I have myself never seen it under such circumstances. Supposing, however, it has set in before we see the patient, then I believe it is absolutely necessary to open the sinus at its lowest point. Graduated compression, beginning *below the most dependent part*, will in some few cases avail to close the cavity; but only too often incision is called for; in this case the opening should always be made below the point towards which the pus gravitates. Should this, aided by compression and bandaging, fail, I know from my own experience of only two means to be relied on, the actual cautery and Dieffenbach's under-skin stitch.

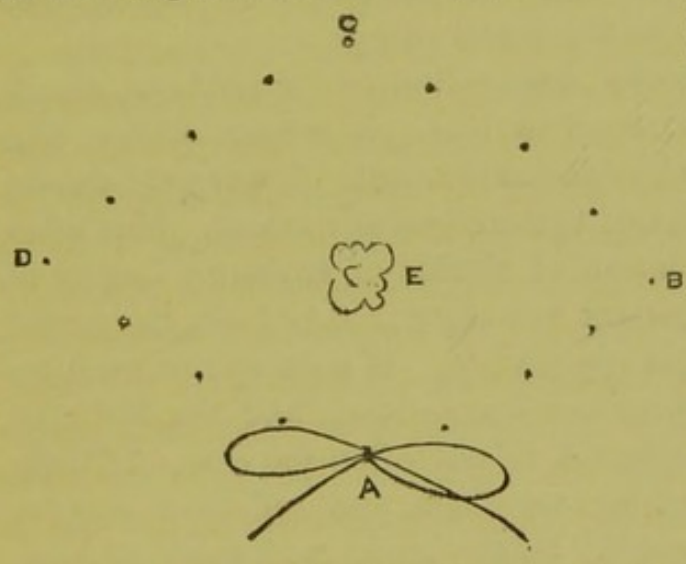
Employment of Actual Cautery.—When the opening of the bubo is in a dependent position, and the long axis of the sinus parallel, or only slightly oblique, to that of the thigh, the hot iron may be employed. For this purpose I always use a stout wire or iron skewer, heated as near to a white heat as I can get it. By beginning with a slight touch or two the patient, even when very sensitive to pain, soon learns to bear the smarting, which he finds a trifle to what he expected. After the first few essays the operator may go more boldly to work, burning till the sinus is seared to the far end and the orifice converted into a funnel-shaped opening. From this time forward the care may be safely left to the natural powers. It is rarely necessary to enforce any particular rules as to diet, exercise, &c., beyond those which common prudence dictates; and I am not aware that any medicine is required, though usually the patient is none the worse for a time. No dressing beyond plain lint is requisite. The improvement is generally very rapid, and in by far the greatest number of cases the sinus heals up soundly and permanently. When the orifice of the abscess is not at the lowest

[1] *A Treatise on the Venereal Disease*, 1838, p. 380.

part, a probe should be introduced, pushed down as far as possible, and cut upon at the point. The cautery is then introduced from this opening upwards.

One thing I am quite clear about, and that is about the pain being not merely much less and of much shorter duration than when caustics are used, but also of its being far slighter than most persons think. A pretty ample experience with the hot iron has convinced me of this. The sound of the word caustic is not so formidable as that of the hot iron, but the effects are vastly more so. The pain, or rather the agony, from caustics often lasts for hours, leaving the patient shattered, wretched, and filled with a perfect horror of any repetition of the same; whereas that from the iron passes off so quickly as that he is in most cases free from it before he leaves the consulting room. I have heard a patient say that the suffering during a single night while the bubo was open was more irksome than all the burning; and though I have often known men refuse altogether to entertain the proposal of using the actual cautery, I have never yet had a patient who submitted to the first operation decline the second.

Dieffenbach's Stitch.—But when the sinus runs at a right angle to the long axis of the thigh, I have sometimes known the hot iron fail. Here Dieffenbach's under-skin stitch, or suture,[1] is often of great service. The principle of the operation is, that the suture is to be so inserted as to surround the cavity at its base, or nearly so, and to draw the sides together. The sinus is first very gently probed so as to ascertain its shape, and then, unless very divergent passages be found, a strongly curved needle is inserted at (A), about an inch from the mouth of the sinus (E), plunged in as deep



[1] *Die Operative Chirurgie.* Von Johann. Fried. Dieffenbach. 1845-8. B. I., S. 61.

as possible, and then brought out at (B), where it is re-inserted, to be again brought out and again inserted at (C), and then again carried by the same process to (D), and again finally to (A), when the two ends are tied firmly in a bow. The stitch thus made is drawn moderately tighter every day, till it gradually cuts its way through all the tissues, when it is drawn out, by which time the sinus is pretty well healed. I am not aware whether Dieffenbach ever employed this stitch for the sinus of bubo, and therefore recommend it solely from my own experience of its value.

As the reader may have gathered from what I said, resort to the suture is rarely called for, and when there are any deep passages leading from the sinus it may fail. In this case the hot iron should be applied to those parts over which the stitch does not exert its influence, and if there be a difficulty in reaching them with the hot iron, some strong vesicant, such as glacial acetic acid saturated with cantharides, can be substituted; but my experience of both is unfavourable, and I am afraid that in some of these cases there is nothing before such a patient but laying the sinus open very freely. Mr. Coulson, in one refractory case,[1] carried the incision from the anterior superior spinous process to the inside of the thigh in one direction, while a cross incision was made as far as the erural ring.

Phagedænic and Sloughing Bubo.—Should phagedæna attack an open bubo there is no time to lose. A strong caustic, like nitric acid of 1420 sp. gr., or the acid nitrate of mercury, should at once be applied unsparingly to the edges of the sore. Dr. Colles had great faith in the solution of cloride of antimony (butter of antimony). When the patient will allow it to be used, the actual cautery is perhaps the best application. If pain and prostration be present, which according to my experience and the histories of cases that I have collected is not often the case, certainly much less than in sloughing, ammonia and sedatives may be given as prescribed at page 8. Dilute nitric acid seems to have often been of service, and may be given as ordered below.[2]

[1] *Op. cit.*, p. 65.

[2] ℞ Acid. nitric. dilut. ʒ ii.
Syrupi limois ʒ vj.
Aquæ menth. virid. ad ℥vj. ℿ et sigue; two table-spoonsful to be taken two or three times a day in a wine glass of water.

Under any circumstances the patient is none the worse for an occasional warm purgative, such as a scammony or galbanum pill at bedtime, and a dose of salts and senna, or decoction of aloes, in the morning.

The use of calomel fumigation in these cases has been suggested, and the remedy has no doubt acted very beneficially in some instances, but I have myself had no experience of its powers. It can easily be applied by means of the apparatus to be afterwards described ; or should a more limited and strictly local use of it be preferred, a china or earthenware inhaler can be used. Ten, fifteen, or twenty grains of calomel put into such an apparatus can be easily volatilized by dry heat, and the vapour directed through a tube straight upon the part.

Sloughing is to be encountered in the same way and with equal determination; and, indeed, acute phagedæna and sloughing are processes so nearly alike as to be all but identical, if not actually so, and therefore in treatment they really constitute the same disease. Antiphlogistic treatment and even spontaneous bleeding seem to have afforded decided relief in some cases. Possibly the low diet and rest, enforced at the time, had a share in the beneficial result.

Treatment of Indolent Bubo.—With whatever form of bubo we have to deal, it calls, when it is indolent, for the same measures. In practice I know of no distinction which requires to be observed here. M. Ricord, in the cases to which he restricts the name of indolent bubo, employs [1] by day plaster of mercury and Vigo, or rather, it should be said, what passes current under that name ; for I need not say that the famous plaster of de Vigo, made of twenty-three ingredients, and containing among other things live frogs, viper fat, and earth-worms steeped in wine, no longer exists. This he replaces at night by friction with mercurial ointment, seconding both measures by well-regulated compression. If the inunctions with mercury act too much on the gums, he substitutes for them frictions with iodide of potassium pomade, simple or iodureted, the skin being first of all carefully cleaned from the mercury. He says,[2] "in many cases it is only by employing these means alternately that we obtain a cure, this

[1] *Traité Pratique*, p. 587.

[2] Ibid., p. 590.

being under other circumstances impossible, or at any rate very difficult." He is also an advocate for treating such cases by means of a blister, and dressing the vesicated surface with a strip of lint soaked in a solution of corrosive sublimate.[1]

M. Ricord's treatment, however, hardly seems to be so satisfactory in its results as one might wish, for he tells us that the diseased glands may remain or even degenerate, the most common cause of persistence being scrofula. I hope, in a future work, to give my reasons for doubting the necessary connection between these two conditions. When other means have failed, he has sometimes succeeded by using frictions with tincture of iodine, diluted with water to avoid the excociation caused by the pure tincture. In still more refractory cases the skin is destroyed with Vienna paste. When a scrofulous disposition is called into play by venereal disease, and refuses to yield, he recommends[2] that M. Malgaigne's plan should be tried, and that an attempt should be made to break up the refractory gland by means of some implement like an office seal. The remedies suggested by other authors do not embrace much beyond the above, there being, in fact, little scope for variety.

Method Recommended.—I consider all these systems open to objection on the score of discomfort, and I believe their power over the hardened glands to be so limited, that the utility of employing most of them must be very questionable. Still, something must be done, as we cannot always trust to time for the removal of the hardened mass. Simon saw[3] one which, at the end of seven years, was still as large as a pigeon's egg, and as hard as a stone. I therefore recommend the following plan. The lump is painted daily with tincture of iodine, and a blister is applied over it once a fortnight; during the time that this is healing the iodine is intermitted. The iodide of potassium, in combination with liquor potassæ as directed at page 22, is given regularly, and in increasing doses; the action of these medicines is often furthered by the administration of grey powder in small quantities, say three, four, or five grains every night or second night. I believe these remedies will cure almost everything in

[1] *Traité Pratique*, p. 589.
[2] Ibid., p. 591.
[3] *Op. cit.*, p. 164.

the shape of indolent swelling, *that is really susceptible of being removed by treatment.*

Treatment of Phagedænic Chancre.—The next variety of sore is the phagedænic, or that in which the ulcerative process is developed to the utmost. Under the term phagedæna I propose to include all forms in which ulceration of a spreading nature is the predominant character; from the florid excoriation to the large, slow-creeping ulcer, which at times produces such fearful havoc and so often for long defies all the resources of art.

Large florid excoriations, becoming phagedænic or tending to run into phagedæna, are perhaps as well treated, locally, with lotions of spirit and water as with anything; a principle, I believe, first taught by Mr. James Evans[1] rather more than fifty years ago; for I think that what he classes as excoriations may be fairly held to include the nascent stage of this division. The reader can try the formula given below.[2] I fancy he will find it useful. A purgative should always be ordered at the same time, and when there is no particular hardening of the edges or base of the sore, steel may be given; it often acts very beneficially. As to the mode of prescribing steel I should imagine that, so long as the dose is just strong enough to act upon the system without overtaxing the powers of the stomach, and is repeated often enough to keep the frame under its influence, it was a matter of indifference what preparation the surgeon employed; the tincture of the sesqui-chloride, alone or in combination with chlorate of potass, the compound steel mixture, and the citrate or ammonio citrate with a plentiful admixture of nutmeg spirit,[3] are, so far as I can judge, equally good. M. Ricord thinks the potassia tartrate of iron "the born enemy of phagedæna," is almost a specific, and there seems every reason to think that

[1] *Remarks on Ulcerations of the Genéto-Urinary Organs*, 1819, p. 53.

[2] ℞ Tinct. myrrhæ ʒi.
— cinchonæ rubræ ʒiii.
Spir. vini rectificat ʒiv.
Aquæ flor. aurant ℥v. ℳ.
ft. lotio.

[3] ℞ Ferri et ammon citratis ʒi.
Spir. myristecæ ʒiii.
Aquæ cinnam. ad ℥vi. ℳ.
Capiat cochleiaria ampl. duo ter quotidie.

great success has been achieved with it, both internally and externally used, not only in this but in the following form of sore ;[1] but Dr. Morgan did not find it used externally equal to bisulphite of calcium lotion, or internally to the ammonio citrate of iron, or citrate of iron and quinine.[2]

When, however, there is any particular hardening of the edges, and still more of the base, and even when, in the absence of all induration, the progress towards a cure does not correspond to the surgeon's anticipations, I would advise an immediate recourse to the soda. It may be applied as gently as is thought proper, but it should not be abandoned because it causes some transient pain, as this is pretty certainly succeeded by both relief and improvement. When the sore is very large, the patient often cannot bear the whole of the surface to be touched at one time with the salt ; in such cases it is well to confine the cauterizing to one part of the affected surface every two or three days till the whole of it has been acted on. In this way I have mastered some formidable looking chancres, one in particular, which had gone on spreading for quite three months, and for which numerous remedies had been tried in vain. It was nearly as large as a shilling, but of a diamond shape, and might be described as bisected by the attached surface of the frænum. The patient was a man of active pursuits, but of dissipated habits, and would not lie up. Yet the soda, aided by iron and ammoniated tincture of valerian, speedily produced a healthy-looking, purulent discharge from the glassy surface, and an improvement set in, which proceeded without check till the sore healed up.

In all cases of phagedæna rest should, if possible, be enforced. I have seen remedies prove of no avail till this step was taken, and amendment begin directly it was adopted. When practicable the patient should be confined to bed. The sore should be bathed with water as hot as it can be borne, and a lead lotion, such as that prescribed at page 7, with a little glycerine added, and heated at the time of using, gives relief in some cases. A hot mashed turnip poultice soothes the part, and removes foetor, but generally hot water answers all useful purposes. A moderate amount of light wine may be allowed, even when the patient is

[1] *Syphilis and Local Contagious Diseases.* By Berkeley Hill. 1868, p. 363.

[2] *Op. cit.*, p. 116.

kept in bed, and whether he rests or is up and at work, I advise that the aperients already recommended should be sedulously continued. Every two or three nights a pill, followed in the morning by a warm aperient draught,[1] should be administered till decided progress has been made.

Warm Dressings.—If there be one form of sore in which, more than another, such applications may be recommended, it is this. I cannot say that I have much faith in them myself, but I see no objection to their use. As to the selection I have already said what little I have to say. The aromatic wine used by some—indeed, I believe by most—french surgeons can be tried, as can also tincture of myrrh in combination with laudanum, or tincture of red bark with nitric acid, in the form of a lotion. The black and yellow wash, which are great favourites with some authorities, scarcely come within this category unless strengthened with spirit, which should, I think, always be done. They seem to owe their efficacy to the lime water, for which I have sometimes exchanged them without noticing any particular difference in the effect produced.

At other times we see the case in a more chronic form, and often at a much later stage. The phagedæna here assumes a different aspect. The edges of the sore become thickened, upraised, hard and undermined. The ulcer heals in one direction and spreads in another; now invading the deeper tissues and again extending in breadth, but always progressing, till the patience of both the sufferer and his medical attendant is exhausted. There is often little pain, and the advance of the disease is slow, but it is almost incessant, and to all appearance interminable. In two cases I have known it continue so long,

[1] Instead of those previously prescribed, the reader can try the following :—

℞ Hydrarg. subchlor. gr. iv.
Podophylli resinæ gr. i.
Pil. rhei compos.
Ext. hyoscyam. aa gr. xii.
Olei carui m i. ℿ ft. pil. vi.

℞ Decoct. aloes comp. ʒ ii.
Mist. sennæ comp. ʒ ix. ℿ.
Tinct. cardam co., ʒ i. ℿ.

ft. haustus. The quantity of salts in the mist. sennæ co. may be advantageously lessened, and that of the senna increased.

that the patients proposed to have the penis amputated as the only possible way of ending their misery. Evans mentions[1] a case where the ulceration of phagedænca, *ulcus erraticum* he calls it, had extended all over the pubis and perinœum, and at the time he speaks of it had formed a ring round the base of the glutæi muscles. "It had," he says, "(if I mistake not,) existed upwards of two years." M. Ricord saw[2] a chancre of this kind which, after lasting seven years, still yielded inoculable pus. Mr. Pearson had under his care a patient who reported that the disease had been going on above eight years.[3] Dr. Morgan one in which the patient was confined to bed eight months, the ulceration spreading from the fourchette up the back to the shoulder blades,[4] and another in a woman which lasted four years and a half.[5] Indeed, it seems in some cases doubtful if the sore would heal by the efforts of the constitution.

One of the greatest obstacles to combat here is the extraordinary perversity shown by many of these patients. I have often thought that a disposition to phagedæna must be associated with some peculiar organization of the brain, as seems to be the case at times with lupus. Be this as it may, it is quite certain that some of the patients suffering from these sores are quite impracticable. There is no doing anything with them or for them, and I have utterly failed to secure perseverance in the most simple and least irksome means, even for a short time, and I suppose, if we could always do what is best in such cases, the wisest plan would be for the surgeon, unless he felt assured the patient would submit to proper restrictions, to wash his hands of the affair.

Reviewing all the means I have used, or seen used, as well as all those of which I have read, I can safely say that I only know of three likely to do any good. These are purgatives, the actual cautery, and calomel vapour. On the necessity for using the first of these freely I have already dwelt. The actual cautery seems to have been very beneficial here in the hands of M. Rollet. According to him[6] the serpiginous sore yields in

[1] *Op. cit.*, p. 34.
[2] *Lettres sur la Syphilis*, p. 455.
[3] *Observations on the Effects of various Articles*, 1807, p. 244.
[4] *Op. cit.*, p. 114. [5] Ibid., p. 40.
[6] *Recherches sur la Syphilis*, 1861, p. 529.

every case to cauterizing. A chancre, he contends, from which the pyogenic membrane has been removed, is converted into a simple wound. He relates at length a case of chancrous bubo in each groin, of seven months duration, cured in a month by the use of the hot iron; another case of two buboes, one of five months standing, cured very quickly; and then briefly of nine other sores of this class, several of them on the penis, old and obstinate forms of the disease, successfully treated in this way, and all, except one bad case of bubo, cured by a single burning. He, however, applies the iron most unsparingly, first of all ætherizing the patient.

Many years ago I tried the actual cautery in all forms of chancre, but I found such strong objections to its use, that, notwithstanding its manifest advantages, I had to give it up, and I believe its employment will always be restricted to those cases which are not to be overcome with other remedies. Judging from the excellent results which have followed the use of the calomel vapour bath,[1] it may be safely recommended. Benefit certainly appears to have attended the use of nitric acid, acid nitrate of mercury, chloride of antimony and liquor arsenicalis, but I think utter failure has far more frequently resulted. Mr. Coulson mentions[2] a case where the surface of the sore was completely destroyed on three occasions with the strongest nitric acid, and yet the disease returned.

I have used, or seen used, for this affection, internally, opium, sometimes carried to a large extent; nitric and hydrochloric acid, both in large and small doses; quinine; iodide of potassium, and cod liver oil, without ever noticing that they exerted anything more than a slight and temporary effect, and not always that. Hunter cured a case of long standing and great obstinacy by some alkaline preparation,[3] but what it was he leaves us in uncertainty about. He relates it as an instance of the benefit derived from the use of the lixivium saponarium, and directly after says that he gave the patient forty drops of the lixivium tartari, night and morning, in a basin of broth. As Swediaur points out, there is clearly some mistake here. The first-named

[1] Lee; *Op. cit.*, p. 100.

[2] *Op. cit.*, p. 12.

[3] *The Works of John Hunter, F.R.S.*, 1835, Vol. II., p. 350.

medicine was the old aqua kali pura, made from potass and lime; the lixivium tartari was prepared from the cinereum clavellatorum, or unpurified potass, kali impurum, and was evidently much weaker. I may mention that I tried the liquor potassæ in a case of this kind, but that it failed with me. Lemon juice seems to have been of use in some cases.

There are also certain local applications, not so strong as caustics, but seemingly quite as useful. Mr. Judd succeeded, after an ulceration of this kind had gone on unchecked for eighteen months, in getting the part to heal by applying a warm solution of pitch and opium.[1] The latest preparation which I heard of M. Ricord using for this sore, *in the female*, is the stearate of iron, forty parts mixed with five of oil of lavender, and applied direct to the part. Styrax ointment has been recommended when obstinate ulceration attacks the female genital organs. There are other remedies of much the same class, for the enumeration of which I cannot find space.

Treatment of Sloughing Chancre.—Although this sore is often coupled with such rapid depression, that I have seen a patient, who professed to have been quite well the evening before, suffering at mid-day from very decided prostration and anxiety, yet some surgeons have not hesitated to treat it heroically with antiphlogistics, while others have looked upon mercury as the great antidote. Mr. Judd, for instance, who in his way paid great attention to syphilis, used to bleed for sloughing,[2] as did Richard Carmichæl;[3] Evans also strictly recommended strict antiphlogistic treatment, unless there was decided loss of tone.[4] Again and again we find it laid down that bleeding is to be our sheet anchor; when there is a high degree of constitutional irritation he sees no safety but in this remedy. These men were decidedly successful, but I am not so sure it was the lancet that did the good. Thus Carmichæl mentions[5] a case where a patient

[1] ℞ Picis aridæ ʒi.
Emp. plumb. ʒii.
Extr. opii ʒss. ft. mistura quæ liquefacta, mane nocteque adhib.
Op. cit., p. 190.

[2] Ibid., p. 194.

[3] *Essay on Venereal Diseases*, 1825, p. 185.

[4] *Op. cit.*, p. 124.

[5] *Op. cit.*, p. 189.

was bled three times to the extent of sixteen ounces each time, and yet we find that the pain was only relieved at the end of thirteen days. Now I fancy most persons would not, at the present day, ascribe the benefit to the bleeding at all, seeing that rest and low diet would in all probability have effected quite as great an improvement in the same space of time.

It may be asked, for what end an obsolete mode of treatment should be assailed here? to which the answer is that the same arguments seem to apply to a mode of depleting which is by no means obsolete. I mean, of course, leeching, a practice from which I have never, in a single instance, observed any beneficial effect. I may have made some mistake in my investigations; we are all liable to such errors; but I am quite prepared to abide by the consequences of saying, that I have seen very severe pain yield in less time, when no kind of bleeding was employed, than we find required for its operation in the most heroic shape. What will perhaps appear still more heretical, I utterly distrust antiphlogistics here. As to qualifying the recommendation to use them, as some surgeons have done, by restricting their employment to those cases where the sloughing occurs in persons of a robust habit, I think it is met by the fact, that we rarely, if ever, see this form of chancre in persons who are really robust; they may look so, but either the constitution is such as will not bear too close inspection, or else the health has been broken down by dissipation.

The latter agency, and the unseasonable use of mercury, are often influential here. Indeed, I may say, that though I have noticed sloughing in persons where I could trace no cause but that of constitutional defect, principally shown in a tendency to rapid pulse, sleeplessness and great prostration, yet I have never seen the more alarming forms of it, unless one of the noxious powers just spoken of had been at work. Besides, there is pretty ample evidence that exhaustion, want of good food, great alarm, privation of sleep, the foul air of a ward, &c., have fearfully aggravated the destructive process. In places and at times where we can easily suppose such causes had full sway, we read of sloughing being common enough. Thus, to take a solitary instance out of many, Mr. Pearson, writing at a time when the mortality in London was higher, the unseasonable use of mercury

more frequent, and the habits of men generally more intemperate, speaks [1] of sphacelation of the whole penis, "where the infection had not been received a week previous to admission," as if it were not uncommon. "The penis," he says, "commonly separated near the ossa pubis, the sores healed, and the patients recovered and remained well without requiring the aid of mercury." Certainly they were quite in a position to dispense with it.

The obvious moral then here is, if the patient be in a tainted atmosphere to get him out of it as quickly as possible, always supposing such a step can be taken; then, if it be found that he has been using stimulants over freely, to cut off any farther supply of them except a little light wine; to give ammonia in the shape of the acetate or carbonate according to the circumstances of the case; and to support the strength well by means of restorative soups, beef-tea made with cold water and warmed when wanted, eggs, milk, broth, &c. Opium may be administered at bed-time, and when there is a good deal of nervous excitement æther may be combined, but if these medicines are to do any good, they must be ordered freely. Less half a drachm of æther and a grain or a grain and a half of opium can be of no use.

When the first few days of depression have passed by, nitric, phosphoric or aromatic sulphuric acid may be given, in infusion of calumba or valerian, two or three times a day. Usually, I believe, the patient requires no other medicines than these, though, I believe, he is never worse, and usually better, for an occasional purgative. Rest during the first few days is a matter of necessity. When we find increasing pain, anxiety, coated tongue, quick pulse, loss of sleep and appetite, the patient is better in bed. Mercury internally is, judging from my own experience, powerless for anything but mischief.

As to the local treatment, probably nothing answers better than the direct application of calomel vapour. Should the progress towards arrest of the sloughing not be sufficiently quick, fuming nitric acid can be applied to the edges of the sore, followed by hot turnip, or white bread, poultice. The latter may be advantageously impregnated with some disinfecting fluid, such as Labarraque's solution of chloride of soda, the old aqua oxymur-

[1] *Op. cit.*, p. 63.

iatica (the chlorine water of the Dublin Pharmæcopeia,[1]) or a solution of carbolic acid. Should sudden bleeding set in, it may be allowed to run its course unless very obstinate or severe, in which case the part affected can be freely exposed to the air of an open window, and touched with the strong solution of perchloride of iron, while tannin is given internally every quarter of an hour or so. Pressure by means of a gum elastic catheter introduced into the bladder, and a narrow roller wound round the penis, is sometimes requisite, or the actual cautery may be resorted to. Mr. Coulson found benefit from compound tincture of benzoin, with charcoal poultice over the dressings.

Wallace studied the symptoms and treatment of primary syphilis so carefully, that I venture to give a compendious account of his principles in reference to this sore, premising that he includes every form of sloughing under the one head phagedæna. He recommends[2] mercury when there is no slough in what he calls simple phagedænic primary syphilis. When hard phagedæna occurs with white slough he advises large doses of sarsaparilla; if along with this latter there be also inflammation, antiphlogistic treatment will be indispensable, and even bleeding may be called for; mercury is to be given in full doses so as rapidly to produce its effect on the system. If instead of inflammation there be irritability with this kind of slough, full doses of mercury are to be given, but they are to be combined with sufficient quantities of opium, cicuta or hyoscyamus. When the slough is black, benefit is often derived from the free use internally of nitrous or nitro muriatic acid; mercury is here inadmissible. If this latter form of sore appear in conjunction with much inflammation, bleeding is required, to be followed by sarsaparilla and nitrous acid.

Bubo of Phagedænic and Sloughing Sores.—It will be unnecessary to give any very full and minute details about the treatment of this complication, and I merely introduce it here lest the work should be thought incomplete without it. Being generally subacute, and possessing little tendency to suppurate, these formations usually require little more than rest, and should they demand

[1] The formula for preparing this is given in Pereira'a *Materia Medica*, 1839, Vol. I., p. 108.

[2] *Op. cit.*, p. 132.

anything farther, should pain, heat, &c., begin to show themselves, every requisite is met by adopting the treatment laid down for suppurating bubo.

Treatment of Hidden Chancre, Chancre Larvé.—Chancres hidden from view, whether they are seated in the urethra or behind the prepuce, when this cannot be withdrawn, are, I think, one and all best treated with injections of nitrate of silver, two or three grains to the ounce of distilled water. As much as possible of the discharge is first of all cleared away by syringing with warm water, and then the injection is made to flow gently over any part where pain and tenderness can be felt, as also over any induration. The syringe should be fitted with a silver nozzle quite an inch long. Chancres treated in this way often heal so rapidly, and on the whole, so far as I have observed, run such a favourable course, that I have sometimes felt tempted to imagine exposure to air and light, which are here excluded, must have some share in producing such contingencies as phagedæna and sloughing, though, of course, I am aware that phagedæna will appear in the urethra itself. Dr. Bumstead recommends [1] that in urethral chancre the dressing should be introduced by means of a probe, and with a thread attached so that it can be withdrawn when necessary. Of chancre within the rectum I have no personal experience.

When the meatus of the urethra is narrowed from chancre, Dr. Colles advises us [2] to detach the skin from the end of the canal for more than half an inch, to raise up the muous membrane from each lip of the incision, then cut away the bared corpus spongiosnum, and finally to stitch the membrane to the spongy body, thus guarding against any reunion of the lips of the wound, or after-narrowing of the opening.

Phimosis.—When this complication is present, and is due to inborn tightness of the foreskin, I see no objection to cutting through or removing the constructing ring. As to the edges becoming inoculated with the secretion, I should have thought such a contingency might have been avoided by proper cleanliness and applying collodion or nitrate of silver to the line of section, and the points where the sutures are introduced. The

[1] *Op. cit.*, p. 423. [2] *Op. cit.*, p. 95.

probability of the accident happening at all where anything like care is taken has, I think, been overrated, and I was surprised to find Mr. Coulson,[1] Mr. Busk,[2] and others speaking of it as though it were common. I have examined scores of out-patients at different hospitals after this operation had been performed on them, most of them not remarkable for cleanliness and attention, and never yet saw the cut inoculated. I have also repeatedly operated without its happening. However, should the surgeon feel dubious about the propriety of the step he may inoculate from one or two portions of the secretion. If the punctures take he can refrain from cutting, and continue to use the injection; if they do not rise, the probability is that incision will be perfectly safe.

Dr. R. W. Taylor, of New York, gives us, in an excellent paper,[3] some highly practical information as to the best mode of dealing with phimosis. In the first stage, before the prepuce takes on the brawny look observed when the inflammation has made much progress, he injects, but with a syringe holding half an ounce, and having a nozzle three inches long, nearly flat, and less than an eighth of an inch in diameter. The nozzle is pierced with five holes. The fluid which he employs for injecting is a solution of carbolic acid, two drachms of the strong acid to half a pint of water. This is injected under the foreskin at least six, and if possible eight, times a day. The penis is kept wrapped in lint wetted occasionally when there is much redness, and retained by a bandage fixing the organ to the fold of the groin in preference to keeping it raised vertically against the abdomen. In a week, and sometimes in less, a great improvement will be noticed. The sores set up by auto-inoculation at the edge of the foreskin he dresses with solution of the acid, half the strength of that used for injecting. Gangrene he considers impossible when the injections are properly employed. But when the two layers of the prepuce have become adherent, Dr. Taylor only tries the treatment for about ten days; if at the end of this time, there

[1] *Op. cit.*, p. 9, 10.

[2] *Report.* p. 265.

[3] *Some Practical Points in the Treatment of the Phimosis produced by Chancroidal Ulcers.* By R. W. Taylor, M.D. 1872.

be no improvement, he advises that the case should be referred to the second stage.

Here, when œdema and cell proliferation have made the prepuce hard and firm, he looks upon division of the foreskin as a necessity, and performs it by means of two side cuts, instead of one down the centre of the dorsum or by the frænum. Circumcision he looks upon as objectionable, it being very difficult to do the operation nicely, and the stitches being apt to slough. He operates with strong scissors, having blades about three inches long. The lower blade is transversely flat, and at right angles with the upper one, which it exceeds in length by the tenth of an inch. The incision is carried to the bottom of the ditchlet surrounding the neck of the glans. Having laid bare the chancres, he dresses them with pure carbolic acid, made fluid by the addition of a little water, and applied by means of strips of lint laid between the glans and prepuce ; the cut surfaces are treated in the same way. As a rule the acid causes no pain, and the average time required for a cure is about forty days. He does not find that the prevalent fear about the cut surface becoming inoculated is realized in practice.

Paraphimosis.—Here, of course, the case is widely different, the œdema and pain being often so great that the patient shrinks, and the surgeon abstains, from incisions up to the last moment. The best practice seems to be applying the escharotic selected to the sore, and then, if possible, restoring the prepuce to its proper place, the subsequent treatment being the same as for phimosis. In slight cases evaporating lotions such as are recommended at page 21, or of acetate of lead and spirit,[1] often afford great relief.

In severe and advanced cases the replacement of the prepuce is notoriously a matter of difficulty. The glans and prepuce should be carefully cleansed and dried, and I know of no better method than lathering the surface by means of a shaving brush, using the best soap that can be had ; warm water is then poured over the part, and drying is effected with a piece of lint. The

[1] ℞ Liquoris plumbi subacetatis ʒ iss (ʒ ii.)
Spiritus rectificati ʒ iv.
Misturæ camphoræ ad ℥vi. ℿ ft. lotio.
To be constantly applied on a piece of linen.

glans is now compressed with a steadily tightening, unremitting grasp, and when this has been carried as far as reasonable endurance will allow, the prepuce is drawn slowly but firmly over it. If reduction cannot be effected by one well-directed effort, the obstacle will, according to my experience, rarely yield to a second, and for my part I never attempt it. I believe the best plan then is to divide the constriction freely and deeply, to give a good dose of some sedative, enforce rest, and keep an evaporating lotion on the part. I have repeatedly confined treatment to these measures without ever seeing any bad effects follow.

Chancre in Women.—Although a very elaborate set of rules might easily be drawn up on this part of treatment, yet there is really very little to be said about it. Sores are to be managed here on exactly the same principles as in the other sex; the same escharotics are to be used, and as freely as for men. The speculum should always be resorted to, especially if there be the least reason to suspect any lesion high up the passage. When the sores are so situated that the patient cannot reach them, they should be dressed daily by a nurse. Rest is always advisable, and when the case is one of phagedæna, sloughing, or spreading soft sore near the fourchette, it should be insisted on.

Condylomata, Fissures, &c.—The consideration of these complications under the head of primary syphilis will very likely be thought, by some precise reasoners, as unscientific as that of including under that head the treatment of the induration of hard chancre, both, the latter especially, being looked on as evidence of systemic infection. But in a work devoted to practice convenience of arrangement and reference is the first requisite, and therefore I think that condylomata and induration, unaccompanied by secondary disease, may very well find a place here.

Mucous papules generally yield to escharotics, one of the best being nitrate of silver. The surface should be thoroughly cleansed as for paraphymosis, after which the nitrate is passed carefully over every part of it; a pointed stick should be used, so as to get into any cracks and hollows. Care must be taken to prevent the condylomatous surface from coming in contact with an opposing one, either sound or diseased. When the growths are seated about the anus, or on the scrotum, a T bandage, with a large piece of linen so attached as to cover them,

will be of service, and prove a great comfort to the patient. Chromic acid is a good escharotic; it may be used of a strength of fifteen grains to an ounce; when employed, a basin of water should always be at hand, and so soon as the acid begins to give pain the papules should be well bathed. The application is to be renewed every four or five days.

M. Robert speaks highly of the acid nitrate of mercury, but judging from my own observations it is in no way superior to chromic acid, while it is more painful. Dusting the growths with calomel sometimes answers very well. Mr. Coulson speaks[1] of a case where a man had a mass of condylomata as big as a cheese plate; they were treated in this way, and in ten days not a trace of them was to be seen. I have often used calomel, and think it a good application, but I was not aware of its action being so rapid. Some authors consider[2] that when these growths become covered with epidermis they are partially organized, and can only be removed by an operation. I have myself never yet resorted to the knife, but in some obstinate cases have used the actual cautery with excellent effect.

Fissures about the prepuce, &c., may appear while the sore is still open, and when condylomata are present. I know of no treatment better than to bathe them well with water as hot as it can be borne, and covering them with wet lint, the moisture of which is confined by means of oiled silk or gutta-percha tissue. After thorough softening, the cracks are painted carefully over with solution of nitrate of silver, ten or fifteen grains to an ounce. Lime water and black wash are suited to these cases, and I have sometimes rubbed in dilute nitrate of mercury ointment with benefit.

Mercury and Iodide of Potassium in Primary Sore.—The reader may possibly ask why mercury and iodide of potassium have hitherto been scarcely mentioned, as though they were matters of no particular moment. My answer is that, precisely on account of the very great importance of these remedies, it seemed better to examine their action in connection with the subject all in one part, and thus avoid breaking the thread of the discussion.

[1] *Op. cit.*, p. 230.

[2] *Traité Theorique et Pratique de la Syphilis.* Par Armand Després. 1873. P. 277.

Power of Mercury over Chancre.—As regards the power of mercury, when properly given and at a certain stage, to heal most cases of sore, except perhaps the serpiginous and sloughing forms, there can, I think, be little doubt. Let two patients with the same kind of lesion, say the suppurating or indurated, and of the same date, be treated, one with simple means, and the other, at a fitting time of course, with some mild preparation of mercury, such as a pill of the proto-iodide, or a little blue pill, two or three times daily. Unless my observations have quite deceived me, the latter class of cases will heal more quickly. Over phagedæna, when assuming the form of large florid excoriations, it seems, during the healing stage, to have a good deal of control.

Is Mercury necessary for the Cure of Chancre?—But it is a very different question whether this drug is really called for, and one which may be safely answered in the negative. I consider no fact in therapeutics better established, than that every form of primary sore will heal without mercury; that is to say, without the internal use of it, or the outward application to such an extent as visibly to affect the system. It is to obviate the wearying delay in the healing process, the deformity from loss of substance, that mercury is called for; not because it is in any way indispensable.

Do the Advantages of giving Mercury in Primary Sore outweigh the Disadvantages?—Here everything depends on the practitioner. Given as mercury is given by experienced practitioners, and especially by those in the army, where its use is principally restricted to cases accompanied by hardening, I feel no hesitation in saying that the scale inclines in favour of employing it. If the surgeon feel satisfied that he really has a primary sore to deal with, that mercury has not already been given, and above all that the patient has not himself already been tampering with it; if he be assured that he knows sufficient of the patient's constitution and habits to qualify him for deciding unconditionally on the propriety of the step, and that he can keep the patient thoroughly in hand, he may fearlessly resort to mercury in any and every one of the contingencies just mentioned.

But unless such limitation can be observed, I distinctly say that I believe it is far better to give no mercury at all. The use

of it in the most careful way only too often lends sanction to the most careless and dangerous employment of it. Mercury is even yet not unfrequently given in unsuitable doses, or till the gums are sore and the teeth loose, for soft multiple sore with the view of averting secondary symptoms; a purpose for which, I believe, it is never required, and which I think it is powerless to effect. It is often prescribed on the statement of the patient that he has had a sore, and in my own practice I have known it given for simple bubo, excoriation and balanitis. It is daily used in cases which do not require it, and one certain consequence of its being thus employed is that the patients will continue to employ it when out of the surgeon's sight, and bring on sloughing, erethism, loosening of the teeth, bleeding from the bowels, &c.

And it is to be remembered that, injudiciously given and without the necessary precaution, it will, even in very small quantities, produce most serious effects, and that, too, without such warning as will prove available. Thus in one gentleman who came under my care the whole uvula had sloughed away from taking half a drachm of blue pill. In another extensive swelling of the lower maxilla came on from the use for only a short time of five grains daily of grey powder; a third was effected in a similar way by two grains of corrosive sublimate given in small doses, while eight grains of calomel in grain doses, and friction with six drachms of blue ointment, produced the most alarming prostration in a strong-looking man, and so on. No doubt the experience of most practitioners who have seen much of this complaint would amplify such statements.

We know that most of, if not all, this is avoidable with care, but as I have already pointed out, such care cannot always be counted on. So long as mercury is used I am afraid it will sometimes be abused, and here the results of abuse so outweigh the benefit obtained from even the most judicious employment of the drug, that I cannot help looking upon mercury, particularly when given inwardly, even in selected cases of primary sore, as a two-edged sword, *with one edge very much sharper than the other.*

Does the Use of Mercury diminish the chances of Secondary Disease?—To a certain extent I should say, Yes. This, too, I

need scarcely remind the reader was Hunter's opinion,[1] and has been that of many excellent practitioners.[2] A surgeon who treats with mercury every sore *likely to be followed by secondary disease* will, unless my observations have quite misled me, find, as a result, fewer cases of systemic infection than he who abstains from using the remedy. But on the other hand the percentage of cases where after-disease can be thus averted is far too small to be satisfactory, and as to any power which mercury, however used, may possess of *generally* curing the tendency to secondaries, I have never been able to observe it, and I think this should be clearly stated to any patient before he is asked to use a grain of the drug for such a purpose. I admit, however, having no statistics to offer in support of this statement, which simply expresses a result forced on my observation by occasional successes and many failures. I may add, too, that I do not think mercury given for this purpose favourably modifies secondary affections when they do appear; on the contrary, I have always found them as intractable, and demanding as long and patient a course of treatment as though the specific had not been touched, while there is reason to think that mercury, used with this view, may unfavourably influence a tendency to rupia, tubercle and bone disease.

Of iodide of potassium in primary syphilis little need be said. Except in hunterian chancre and indurated phagedæna, I believe it exerts no control over any form of the affection, and very little in these. If it possess such a quality as that of warding off constitutional disease, the fact has eluded my notice. It seems, especially conjoined with liquor potassæ, to quicken the absorption of primary hardenings, and that is all the good I know of it.

[1] *Treatise on the Venereal Disease*, 1786, p. 87.

[2] Durkee *Treatise on Gonorrhœa and Syphilis*, 1864, p. 209.

CHAPTER II.

TREATMENT OF SECONDARY SYPHILIS.

Brief Enumeration of the Symptoms of Secondary Syphilis.— In order that the reader may quite understand to what affections I propose to apply the treatment which will now be described, I will run over them in as compendious a manner as the subject admits of.

They may, for convenience sake, be divided into three phases. I need scarcely say that such a distinction does not exist in nature, but without arrangements of this kind there can be no methodical and thorough investigation of disease and the results of treatment. Till a natural classification is fixed upon an arbitrary one remains a matter of necessity. It is also to be remembered that many of the symptoms about to be mentioned are often absent; that, for the sake of brevity, I have sometimes been compelled to omit varieties which the reader might think important; and that the order of sequence seen in every day life frequently differs materially from the line traced out by the most practical writer. But against all this I must plead that the brief sketch which follows is not offered as a synopsis, but as a guide to the employment of certain rules of treatment. Beyond this it has no value.

In the first phase, then, we meet with a feeling of indisposition, or, as the patient often describes it, of being "out of sorts;" some amount of wasting; perhaps anæmia (according to some authors disturbed vision); loss of muscular power;[1] low specific gravity of the urine;[2] weariness, often noticed at the same time with cephalalgia; swelling of the posterior and lateral cervical glands; often of the lymphatic glands nearest the site of the

[1] Ricord; *Lettres sur la Syphilis*, p. 242.

[2] Gay; *Medical Circular*, Jan. 24, 1855.

chancre and the lumbar glands, followed in some cases at a later date by similar affections of bronchial and mediastinal glands; pains in the scalp (cephalalgia), considered by Diday [1] as certain to occur, when specific treatment has not been used, between the thirty-fifth and forty-fifth day after the chancre has shown itself, but often tormenting the patient at a much later date; often worse at night and in bed, a fact ascribed by some writers to the heat of the bed, which explanation we may safely doubt, as they frequently remit while the patient is still warm in bed; alopecia, not unfrequently preceded by small, isolated crusts on the scalp, sometimes contemporary with, but usually earlier than, sore throat and papulæ;[2] and finally roseola, or a morbilliform rash, sometimes heralded in by feverishness and gastric disturbance, and at others accompanied by more distinct papulæ, sometimes taking precedence of all other symptoms.

According to M. Bassereau [3] roseola, so called, I presume, for want of a better name, as it runs a widely different course from true roseola, frequently shows itself between the sixtieth and ninetieth day after infection, sometimes, however, so early as the twentieth to the thirtieth day, and in some rare cases as late as the fifth month. M. Diday fixes [4] the outbreak of syphilis at fifty-six days from the date of the chancre appearing. According to him, unless specifics be given for the primary symptoms, the patient rarely goes three, and never six, months without an attack of secondary disease. Mr. Judd gives [5] the appearance of lichen at from twelve to fourteen weeks after contamination. Rollet fixes [6] the date of secondary affections appearing, in his cases of inoculation from the infecting chancre, at from twelve to a hundred and twenty-eight days.

Again, Mr. Coulson, taking the specific induration as a starting-

[1] *Exposition Critique el Pratique*, 1858, p. 280.

[2] A later form of syphilitic alopecia, in which the whole integumental surface becomes permanently bald, is described by Dr. Bumstead; but it is unknown to me, and, to my thinking, looks more like tinea decalvans occurring in a syphilitic person. *Op. cit.*, p. 464.

[3] Diday; *Exposition Critique*, p. 265.

[4] Ibid., p. 266.

[5] *Op. cit.*, p. 287.

[6] *Op. cit.*, p. 21.

point,[1] computes the outbreak of early secondary symptoms at from six to ten weeks after this. Dr. Morgan, however, relates[2] a case of "acute coppery rash" appearing within twelve days after exposure to infection, a pustule having formed by the morning after the connexion, although free ablution had been practised (!), and induration having begun on the third day, a rapidity of development to which I know of no parallel. Dr. Bumstead considers[3] that the symptoms of lassitude, &c., or fever as he calls it, are met with in the majority of persons who have not taken mercury, and that they precede early secondary disorder by eight or ten days. According to the observations of Després,[4] roseola occurs in the proportion of seventy to a hundred of all other eruptions.

We may then, I think, pretty safely take about five weeks after infection as the earliest date, and from two to six weeks later as the general date, at which we may expect to find secondary disease showing itself. Supposing, then, the patient has had such primary symptoms as lead us to anticipate that his constitution will be affected, and that the surgeon decides to begin the curative treatment so soon as ever the earliest manifestations appear, which is to my thinking the best method, then he may duly warn him, at the above-mentioned time, to take the necessary steps.

In the second phase we see superficial, often inflammatory, affections of the mucous membranes, the mouth, throat, lips, perhaps the anus; prominent among them erythema of the fauces, more prevalent according to my observations in the excitable and delicate, appearing naturally[5] about two months after the induration of the chancre, often accompanied in its more severe form (angina) by painful enlargement of the submaxillary glands;[6] ulcers near the junction of the anterior palatine arch and tongue, causing great pain in swallowing and in the side of the head and face, or about centre and base of tongue, or behind velum; condylomata (mucuous patches) sometimes

[1] *Op. cit.*, p. 91.
[2] *Op. cit.*, p. 105.
[3] *Op. cit.*, p. 546.
[4] *Op. cit.*, p. 285.
[5] Coulson; *Op. cit.*, p. 155.
[6] Ibid., p. 156.

according to Lee,[1] Ricord,[2] Diday,[3] and Rollet,[4] the result of a chancre being transformed *in situ* into this form of growth, and hence referable in such cases rather to primary syphilis, a fact pointed out by Wallace[5] as far back as 1838; at any rate I can put no other construction on his words, always accompanied, according to him, by only superficial ulceration of the throat, the tonsils being rarely affected, sometimes erroneously confounded with warts, found particularly on parts freely supplied with lymphatics as the anus, perinœum, vulva, scrotum, and on the lips, tongue, and soft palate, also but rarely between toes, in axilla, or on upper part of thigh in female, and as often as twice in fifty-two cases in larynx by Dr. Morell Mackenzie;[6] one of the most incontestable symptoms of syphilis; and according to Després,[7] producible at will by poulticing crusted eruptions; may appear alone or accompanied by papules, &c.

Along with these symptoms come flat, copper-coloured papules, often seen on forehead, neck, and nose where non-specific papules are rare; sometimes covered with flat scales (squamæ), the same symptom as roseola and lichen, but in another phase of development, rare in its most expanded form, that of lepra,[8] usually, when it does appear, a sequel of the true hard sore, met with on flexor surfaces, where we see so little of true lepra unless very diffused, comprising in itself psoriasis, which has no separate existence; lichen, said by one writer to affect principally the back and shoulders, and to be particularly associated with iritis,[9] the same thing as roseola, but more chronic, and the papulæ smaller; sometimes yielding scurf like pityriasis, and accompanied by alopecia; pityriasis, in its initial stage pathologically the same as pityriasis rubra, but at a later stage occasionally ulcerating or developing tubercles; and papular pustules, acne, differing, however, from the idiopathic disease not only in their site but lesser degree of hardness.

Also puniceous patches, described by Judd[10] as intermediate between roseola and purpura, usually set in irregular lozenge-

[1] *Op. cit.*, p. 198.
[2] *Lettres sur la Syphilis*, p. 328.
[3] *Op. cit.*, p. 479.
[4] *Op. cit.*, p. 17.
[5] *Op. cit.*, p. 338.
[6] Coulson; *Op. cit.*, p. 180.
[7] *Op. cit.*, p. 233.
[8] *Report*, p. 62.
[9] *Report*, p. 157.
[10] *Op. cit.*, p. 235.

shaped and hexagonal groups, each according to this author looking as if lymph had been thrown out on the surface of the absorbing rete mucosum,[1] seldom commencing later than about nine weeks after infection ; vesiculæ, which I have not met with as a true syphilitic affection, and many cases of which I believe to be eczema siccum (syphiliticum), with elevation of the scarfskin,[2] more than once mistaken for modified small-pox, an error I should have thought only possible with respect to the papulo vesicular or papulo-pustular form, to which, indeed, small-pox often bears no slight resemblance, [3] reported by Simon [4] and others to have been seen in the form of pemphigus,[5] noted by Dr. Robert Beith [6] as occurring three times in a hundred and twelve cases ; impetigo and ecthyma, the latter in the papular stage much resembling variola when general,[7] being the same symptom as the papulo-vesicular eruption, but mostly confined to scalp and legs, on the former of which simple ecthyma is not seen in the adult ; sometimes running an acute course ; to be distinguished from a form which occurs at a later period, both being generally considered as marks of great debility. Lastly certain maculæ, not badly described by Judd,[8] and named by him *spili coccinei*, *cruentati* and *cuprei*, the two former being a crimson, varying from a slight tinge to the most vivid hue, small, in size from that of a pin's head to that of a Windsor bean ; commonly numerous, in clusters of irregular numbers, as three to five, generally unaccompanied by iritis, and not requiring mercury ; the latter of a yellow colour, larger from the very outset, frequently confluent, sometimes lasting for years ; also an exanthematous disorder described [9] by the same author, belonging rather to the earlier eruptive period.

The third phase may be supposed to include iritis, which, however, often shows itself in the second, occasionally but rarely complicated with abscess in the iris ;[10] retinitis ; choroiditis, both

[1] *Op. cit.*, p. 238.
[2] Després ; *Op. cit.*, p. 283.
[3] Coulson ; *Op. cit.*, p. 103.
[4] *Op. cit.*, zw., Th., S. 22.
[5] *Op, cit.*, p. 23.
[6] *Report*, p. 149.
[7] Coulson, *Op. cit.*, p. 107.
[8] *Op. cit.*, p. 421.
[9] *Op. cit.*, p. 235.

[10] At the Lourcine Després only saw this complication three times in seven years. *Op. cit.*, 251.

belonging rather to the tertiary epoch, though the former has been seen following close upon the first outbreak of papulæ, the latter being, according to Després,[1] a not very unusual sequel of iritis; deafness from swelling and ulceration of the eustachian tube, and pressure on it by the enlarged tonsils, and from the meatus being swelled and filled with unhealthy cerumen.

We also find now ulcers of the angles of the mouth and lips, of the inside of the mouth, tonsils and fauces, often excavated, sometimes when mercury has been given in excess, whitish and superficial, with considerable surrounding redness and some swelling; in more severe cases patches on tonsils and in back of pharynx may be seen covered with a pultaceous slough; ulcers, stripping and fissures of tongue; extreme tenderness and superficial excoriation of patches of schneiderian membrane, often with a feeling of stiffness and inability to clear the nostrils; painful fissures at edge of rectum, and superficial ulcerations within it which, according to Mr. Coulson, who has given [2] an excellent account of this symptom may, when complicated with fissures, lead to permanent contraction of the sphincter; ulcerations of the vulva; irritable fissures between the toes, and ulcerations at the edges and roots of the toe nails; ulcers at the roots of the finger nails (onychia), accompanied by inflammation, suppuration, and horny thickening of nail; ulcers of eyelids, sometimes spreading along conjunctiva to globe of eye, and destroying vision.[3]

To these must be added a late form of ecthyma, which may also appear as a tertiary symptom; tubercles, now and then single, more frequently in groups, sometimes in the latter case arranged in the form of a horse-shoe arch, spoken of, when seated on the face, as syphilitic lupus; sometimes when single on legs or face, boring deep, met with also on velum, amygdalæ, sides of cheeks and tongue, causing deep round ulcers, perhaps impeding deglutition or leading to necrosis of exposed bone, may also attack and destroy cartilage of nose; always serious in any form; a sign of the abnormal syphilis of some writers; seldom, according to Després,[4] accompanied by condylomata; also rupia, pemphigus; acute secondary ulcerations of skin, occurring

[1] *Op. cit.*, p. 251. [2] *Op. cit.*, p. 160. [3] Colles; *Op. cit.*, p. 166.
[4] *Op. cit.*, p. 289.

without premonitory tubercles or papules, sometimes according to Dr. Morgan,[1] the earliest sign of constitutional infection, syphilitic inflammation of testicles, generally attacking both ;[2] certain signs of visceral disease ;[3] and some rare symptoms, such as salivation when no mercury has been taken, &c.

The following summary will perhaps fairly represent the course of symptoms following true hard sore. Chilliness ; heats ; quick pulse ; lassitude ; roseola, ending in copper-coloured patches, followed by well-developed papules, some of which may become pustular or vesicular ; florid hue of tonsils and soft palate, with enlargement of inguinal and post-cervical glands ; increasing loss of strenth and pallor. Then come ulcerations of tonsils and falling of the hair ; ulcers on under surface of tongue, soft palate, roof of mouth and angles of jaw and gum ; condylomata about nates and vulva ; iritis ; onychia ; ulceration of some of papules. Sometimes the sequence is rather more as follows :—feverishness ; lepra ; honey-comb eruption on hands ; ulcers of tonsils ; all slowly and painlessly evolved. As a rule condylomata follow papules, and tubercles come later.

Mr. Coulson describes,[4] under the head of malignant syphilis, a form which runs a different course from any of these, and is marked by great prostration, acute pains, sense of stiffness in joints, followed by late secondary or even tertiary eruptions, there being nothing in the interval except, perhaps, slight sore throat. The eruptions are generally ecthyma, tubercles, and rupia ; the tubercle may be the first manifestation, and sometimes becomes gangrenous.

Such are the symptoms which I propose comprizing under the head of secondary disease, and the treatment of which it will now be my object to discuss ; but in order to do this effectually the ordinary modes of proceeding must first of all be examined.

Is Mercury Necessary in Secondary Syphilis ?—As this is one of the most important questions in the treatment of syphilis, as the health and welfare, not only of the patient but of a whole family, may rest on the surgeon's decision ; and as mercury, to be given with any effect, must be given, in my opinion, not only when secondary disease has broken out, but, if possible, so soon as

[1] *Op. cit.*, p. 156. [2] Coulson ; *Op. cit.*, p. 185. [3] Ibid., p. 266.
[4] Ibid., p. 147.

ever the medical attendant has satisfied himself that it is coming on, and be continued far beyond the time necessary for the mere extinction of the symptoms, it will be necessary here to reverse the line of argument pursued in the preceding chapter, and to begin by examining impartially what can be said for and against the principal modes of treatment—the mercurial, that by iodide of potassium, and simple treatment. As I have, after a fair trial, long ceased to rely exclusively on any one of these methods, I hope I may be permitted to speak of my own judgment as quite unbiassed.

Objections to Mercury.—And first of all the non-mercurialists have urged against this drug that it often fails; that it merely causes a temporary disappearance of symptoms, certain to be followed at a later date by an equally bad, if not worse, state of matters; that the cases cured by it would have got well, if not as fast yet as surely, had not a particle of mercury been given; that however carefully employed it produces at times symptoms even more threatening than those of the disease it is prescribed for; and that the most destructive effects of syphilis are only seen when mercury has been administered. There is a good deal of truth in all this, and along with the truth a good deal of exaggeration.

That it often fails.—This much must be conceded, with the qualification, however, that when the treatment has fair play the failures are very few, and that they are quite as numerous under any other system; and here, I may observe, that I am speaking expressly of the power of mercury to remove the visible signs of syphilis, that is to say, to cure the particular phase of the disease for which the patient consults the surgeon. It is, unhappily, a fact which cannot be got over, and which has indeed been admitted by some of the best practitioners, that mercury, however given, cannot always be relied on. I know there are writers who profess never to fail. The answer is that, either they have not seen much of syphilis, or they have not followed the cases up, and perhaps the best way to deal with such assertions is to leave them to their natural fate. In some ill-fated persons syphilis pursues its destructive course, only too little influenced by mercury in any form, and he who trusts to this medicine must lay his account to finding his best concerted measures sometimes

baffled. But granting all possible weight to this objection, it holds good against every remedy; so far as I have been enabled to draw a conclusion it is, that the man who is, in any given case, unsuccessful with mercury, would have been equally so with simple treatment.

To the fact that even while the patient is thoroughly under the influence of mercury fresh symptoms, such, for instance, as nodes, will come out, a fact admitted by the most staunch advocates of this drug,[1] I attach no importance; for this will happen with medicines of undoubted efficacy in other diseases. For instance in acne, when the patient is taking such remedies as arsenic and potass, it will occur that while these are removing the first crop of papules and pustules, much larger ones will make their appearance; eczema and erysipelas will appear when the patient is under the influence of tincture of steel, which often so rapidly cures these disorders; gout while he is taking colchicum, and so on.

That it merely causes a Temporary Disappearance, &c.—This, too, must be equally conceded. That the most thorough-going and careful course of mercury, even when it apparently puts a complete end to the symptoms for which it is employed, still entirely fails to guarantee the system from farther outbreak is an old and well-established allegation. But here, too, the same line of argument holds good. The disease returns under any system of treatment, and the simple fails quite as much as the mercurial to avert such a contingency. Of the two I should say the former was the more powerless here.

To my thinking the arguments in support of mercury for the purpose of cure and obviating return are clinched by the fact, that while men who have honestly tried and even advocated simple treatment have at last been driven to abandon it in favour of mercury, the reverse has rarely been seen; indeed, I believe that no one who ever understood how to use mercury as Bell, Colles, and Pearson used it, has ever been converted to the opposite side of the question, and that those who have given up mercury have done so after but a brief trial of its powers. Nor can all this be justly ascribed to prejudice and adherence to

[1] Adams; *Op. cit.*, p. 85.

routine. Recognized teachers are generally on the side of mercury, and a man who has, as a student, learned that it is the great specific, and who, disheartened by his failures with it, gives it up for simple treatment, and then finding this even a less trustworthy guide, returns to mercury, offers as strong evidence of the kind in favour of this medicine as can well be brought forward, and that such evidence exists I need hardly say.

That cases cured by Mercury would have got well without it.—Properly looked at this can scarcely be received as an objection. I suppose few will now-a-days contest the assertion that a great many cases of syphilis do really pass off under simple treatment. The real question at issue is which of the two systems, for simple treatment is here so linked with iodide of potassium that they may almost be considered as one, cures most speedily and effectually; and I think, that when the cases on both sides are equally well managed, the balance is in favour of mercury. It must be borne in mind, that to contrast the effects of non-mercurial treatment in the hands of a practised and judicious specialist, with those of mercury improperly given, is to institute an unfair comparison, and I am afraid some of the comparisons have been based on such grounds.

That, however carefully given, Mercury produces Serious Effects.—Here I think the believers in simple treatment are standing on vantage ground, and this objection constitutes one of the strongest reasons I have to offer on behalf of the treatment which will subsequently be recommended. According to my observations, no care, no experience, can entirely avert this contingency. If mercury be given to such an extent as to cure most cases of syphilis, unpleasant symptoms will be set up in the others, and in proportion as we approach absolute safety in the employment of this drug, do we impair its efficiency. I do not deny that the maximum of the latter can be combined with a very small percentage of deleterious results, but both my reading and experience forbid me to believe that these can be entirely averted. The surgeon who gives mercury in every case must, if he give it effectually, count upon this hazard. Pearson,[1] who perhaps understood better than any man of his day in England how to use

[1] *Op. cit.*, p. 21.

mercury, seems to have been strongly impressed with the grave importance of this drawback to its efficacy; it was pretty clearly with the view of meeting this evil that he tried every new remedy for syphilis which offered itself.

There are writers who would have us believe that these serious results only happen when mercury is given improperly or to excess. The reader will have already seen that I regard this as an error. I hold it to be a very serious one, and at the risk of being charged with repetition I again say, that unless mercury be employed in what these gentlemen call excess, it cannot be relied on as a means of cure. I have not found sufficient proof that any man ever understood how to master this disease by means of mercury, and yet at the same time avoid this excess. As to guarding against all serious effects by simply administering the drug till the particular state for which it is prescribed has yielded, I say at once plainly, that I regard it as one of the most pernicious rules of treatment ever laid down. Here I quite agree with Simon of Hamburg. The teachings of experience do not allow me to accept the doctrine of Mr. Coulson,[1] M. Ricord and others, that the best plan is simply to give mercury till each successive attack is subdued. It is no wonder that we find some of the french surgeons, who adopt this plan, speaking of syphilis as if it were incurable; and some of the english medical men examined before the committee on venereal diseases admitting[2] that giving mercury merely till the slightest possible effect was produced on the gums did not prevent the recurrence of the disease, though evidently relied on for prevention as well as cure.

Mr. Berkeley Hill, one of the most able and recent exponents of this doctrine, while distinctly stating[3] that "all the useful effects of mercury are attained when the slightest possible sign of its influence is betrayed by the gums," still allows that there are exceptions to the rule. I will, however, take the liberty of going farther, and saying, that if the phrase "all the useful effects" is to be considered the same thing as a cure, the exceptions will comprise nearly every severe case.

[1] *Op. cit.*, p. 212.
[2] *Report*, p. 23, &c.
[3] *Spphilis and Local Contagious Diseases*, 1868, p. 290.

Indeed, I think that, tested by success, there can be little doubt that in respect to the use of mercury in syphilis, treatment has of late years receded from its former excellence. We do not find among the great mercurialists of by-gone days any trace of all this dread, this want of fixed principles, and consequent want of faith in mercury, which have latterly gained so much ground; and therefore we need not be surprised at finding them so much more successful than their descendants. That famous surgeon, John Pearson, to whose wonderful knowledge of the subject Sir Benjamin Brodie bears honourable testimony, achieved results which stand out in startling contrast with those of the extinction method. The latter author describes [1] Pearson's system as nearly perfect, and far surpassing that of modern practitioners; results which he ascribes to his having no general hospital to attend to, and the powers of his mind being in consequence more exclusively devoted to the study of syphilitic diseases; facts no doubt of peculiar and perhaps painful interest to the opponents of special hospitals! Yet this success was gained by boldly aiming at cure, not by resting content with delusive amendment. For my part I have never seen deep-rooted disease really cured by such mild means, and I fancy that if such men as Pearson, Bell, Adams, Colles, &c., could rise up and give us the benefit of their opinions, they would endorse what I say. They would tell us that they never hoped to cure syphilis without depressing the patient's strength, and would never have essayed such a task if their hands had been so tied that they were never to run the risk of the least mischief. No, the problem before them was which would in the long run most effectually damage the constitution, the disease, or the remedy? Their conviction clearly was—the disease, and they as clearly thought it their duty to exorcize the demon of syphilis at any cost likely to be entailed by their system of treatment.

I do not in any way understand why M. Ricord, who at a later period only prescribes mercury till the existing symptoms are removed, should, at an earlier stage, give a six months' course of this mineral.[2] Dr. Bumstead grimly remarks [3] of this method,

[1] *Works*, 1865. Vol. III., p. 294.
[2] *Lettres sur la Syphilis*, p. 442.
[3] *Op. cit.*, p. 521.

that if he were the patient he should hesitate whether to prefer the disease or the remedy, and gives an instance of its inutility. In time he will perhaps be able to cite a few more cases, seeing that the method certainly possesses less control over syphilis than a short course of mercury well directed. I do not suppose any of us will have much experience of the matter in England, for the simple reason that most persons here would not entertain the proposal; but what little I have been able to learn from patients who had undergone this system quite leads me to share Dr. Bumstead's opinion, for in each of these cases the disease had returned, apparently in as bad a form as if nothing had been done. I have seen secondary symptoms, followed in their turn by gum tumours on the calf of the leg and the penis, with sarcocele, break out after a six months' course of blue pill, the only difference caused to the unfortunate patient by the mercury being a severe and refractory ulceration of the tongue and mouth. The reader will perhaps say that it is unjust to blame M. Ricord on one hand for giving too little mercury, and on the other for using too much, but I do so because both seem to me equally deviations from sound principles of treatment.

The most Destructive Effects of Syphilis only seen when Mercury has been given.—With certain weighty reservations this objection may be admitted. Naturally enough, we find that in many of the worst cases of syphilis the patient has been taking mercury, but in a large proportion of them the remedy has nothing to do with the severity of the symptoms; it has been taken in too small a quantity, and for too short a period, to influence the course of events for good or for evil. In course of time the most negligent patients become roused to spasmodic activity, and take something to stay the ravages of syphilis, the something being mercury nine times out of ten. When, at a later period, a patient of this class presents himself with the worst symptoms of syphilis, we have before us one of the combinations on which the opposition to mercury is based. I need scarcely say, however, that all such cases should be eliminated from any sound system of statistics.

In another set of cases we have to deal with the combined effects of the abuse of mercury and syphilis, and of these we shall always see plenty so long as surgeons give mercury without in-

sisting on proper restrictions, and patients contrive to evade such restraints and deceive their medical attendants. All these, too, should be struck out. The abuse of a remedy has nothing to do with its use, and therefore they have nothing to do with the argument. The contention will thus be narrowed to the point really at issue, whether, among patients who have used mercury properly, the proportion of those who present the most serious features of syphilis is greater than among those who have gone through simple treatment. I apprehend the answer must be something like a negative. The proportion may be slightly in excess, even under the most judicious use of mercury, but I believe this is only where the patient has, unknown to the surgeon, been tampering with the drug. Of course the absolute numbers cannot be dealt with in statistics, seeing that, for some reason or other, perhaps, nine patients out of ten take mercury.

As to the statement itself put point blank and without any saving clause, it may be met by a flat contradiction. No doubt overdosing with mercury, especially taken internally, will, in the case of a person suffering under the combined effects of dissipation, exposure to inclement weather, privations and syphilis, fearfully and rapidly aggravate the latter, but for all that, syphilis will appear in its worst form without it. There are some writers who say they have never seen bad tertiary disease unless mercury had been used. The late Mr. Syme taught something very like this doctrine, though latterly he so far modified his views as to admit some exception to the rule.[1] Mathias, who investigated the subject carefully, says,[2] that tertiary swellings on the tendons are never seen except when a considerable quantity of mercury has been taken. Fricke took even a stronger view, and one of the latest exponents of the doctrine, M. Després, maintains it in all its integrity,[3] though he allows that persons who have never taken this drug may have gum knots, a sufficiently serious symptom in itself I should say.

Plenty more evidence of the same kind could be adduced, but no amount of it would outweigh that on the opposite side of the question. Mr. Skey saw[4] destruction of the soft palate, and a large open sore on the forehead, where the patient had not taken

[1] *Report*, p. 223.
[2] *Op. cit.*, p. 128.
[3] *Op. cit.*, pp. 308, 311.
[4] *Report*, p. 6.

a particle of mercury. Dr. Morgan has noticed serious affections, without any operation of the drug.[1] M. Ricord tells us[2] the same story. Sir Benjamin Brodie relates[3] a case of extensive disease in the bones of the nose, apparently extending to the ethmoid, the brain and its membranes, bringing on epilepsy and mania, in which state the patient died without having taken any mercury at all. Dr. Gordon Hardie stated[4] before the Committee on venereal diseases that nearly all his worst cases of tertiary syphilis were those where the disease had been "untreated." Dr. Alexander Barclay has known the bones affected when no mercury had been given,[5] a fact which, I suppose, the experience of every person who has had much to do with this disease will confirm; and I have myself seen intractable tertiary ulceration where the patient had positively refused to touch mercury, having, he said, seen a relative die from a very short course of it.

Had, then, the advocates of simple treatment confined themselves to saying that the most dreaded results of this fell malady are far more frequently seen where the unseasonable use of the remedy aggravates the destructive march of the disease, they would have had the suffrages of all sensible men on their side; as it is, their sweeping statements have excited opposition and distrust. But even then they would have taken nothing by the motion; they must after all have fallen back upon the *abuse* of mercury as the great source of mischief, and I have endeavoured to show that this is beside the question. That bad after-symptoms are rare in the hands of judicious mercurialists we know for certain, because men in large practice have used this remedy for years, even in cases which might be considered as desperate, without seeing anything of the kind. Thus Dr. Colles, an excellent practitioner, used to begin a course of mercury even when the patient was "as it were melting away under the effects of hectic."[6] Yet he managed to avoid all the frightful effects ascribed to this medicine; and Simon of Hamburg, who used it in the worst class of cases, says[7] that in thirty years experience

[1] *Op. cit.*, p. 201.
[2] Traité *Pratique*, p. 603.
[3] *Works.* Vol. III., p. 287.
[4] *Report*, p. 157.
[5] *Report*, p. 202.
[6] *Op. cit.*, p. 206.
[7] *Op. cit.*, zw. Th. S. 101.

he never had such sequelæ as caries, &c. I need hardly add that there is ample reason to believe others have been equally successful.

Some very good surgeons have held that secondary symptoms are milder when no mercury has been given for the primary sore. For instance, Mr. Longmore gave evidence to this effect before the Committee.[1] The opinion seems to me very questionable. I see nothing which proves that mercury, judiciously administered, has really any power to aggravate secondary disease. It may so interfere with the evolution of the earlier symptoms as seemingly to produce the effect ascribed to it, and the aggregate of cases treated with it will usually present some where mismanagement has crept in and exasperated the constitutional disorder; but neither fact can in any way be said to affect the pith of the question, which is, whether the discreet use of mercury will do mischief here.

We find a certain amount of misconception on this head more widely diffused than we might expect. Authors not in any way unfavourable to the use of mercury have spoken of its acting in some few cases like a poison. Thus Brodie, a firm believer in the virtues of this drug, says[2] there are instances of secondary disease where the more mercury is given the worse does the patient become, and he justly points out, that if the drug be suspended for a time and sarsaparilla given we can then use mercury with the best effects. But in this respect some of our most valuable medicines are poisons. Mercury used in syphilis certainly requires preparatory treatment, not only in the cases mentioned by Brodie but in all cases; but this holds good also of steel, arsenic, iodide of potassium, and the mineral acids which often, when given without a preliminary course of aperients, set up so much irritation that they cannot be continued even in cases most urgently requiring them.

Forms in which Mercury is used. Inunction.—Having thus stated, I hope impartially, the case of mercury against simple treatment, I shall attempt to show that even the treatment by mercury offers most serious drawbacks in any and every known method of giving it, and that while I propose to retain the medicine itself as an essential part of the treatment to be recom-

[1] *Report*, p. 36. [2] *Works*. Vol. III., p. 290.

mended, it is only with such modifications and restrictions as to my thinking alter the very substance of the question. The reader may possibly say that, such being the case, it was unnecessary to go into details showing the superiority of mercury over simple treatment. This may be quite true, and if so I regret it; but it must be remembered that an author who is treading upon unbroken ground cannot afford to lose a single link in the chain of his argument. I now pass on to the consideration of inunction.

So far as I can draw a conclusion the practice seems doomed. Except in hospitals, and some very rare instances in private practice, it can no longer be employed in the only way likely to do any good. Men will not submit now-a-days to the dirt, confiuement and discomfort inseparably attendant on such a system; the restriction to a warm, close room; the use of the thick flannel or woollen dress, enveloping even the head, have become, in private life at all events, things of the past. The busy man of to-day will rather face the worst evils that syphilis can bring with it than such an ordeal, and I fancy we might almost as well try to raise the dead as to revive inunction under its old form. For better or worse its days are gone, and to employ it except in an efficient manner, to adapt it to modern exigencies, means, if we really aim at a radical cure of the disease, throwing away time and money. When we can put it thoroughly in force, it is perhaps still the most potent means of exhibiting mercury; there is testimony enough to that effect even among quite modern writers, men familiar with the most recent modes of employing mercurial vapour. Mr. Coulson says[1] that eruptions which resisted mercury internally and by the vapour bath have entirely yielded to inunction, and that after failure with all other methods he has found none so invariably successful as this; and Dr. McDonnell speaks[2] in the most unqualified manner of the sudden and marked effect produced by salivation, set up, if I understand him rightly, in this way, on symptoms which seemed to be only aggravated by a milder method.

Mercurial Eczema and Erethism.—But supposing surgeons

[1] *Op. cit.*, p. 225.

[2] *Lectures and Essays on the Science and Practice of Surgery*, 1871, p. 119.

could overcome the objections of private patients to inunction, it is more than probable that the first few cases of eczema or erethism would give them a sharp warning to pause. These are two of the evils which men must encounter if they decide to rely on an effective use of inunction. We see comparatively little of them now; but we can easily learn from the pages of Colles[1] and Pearson that they are no imaginary ills. Eczema, thus, induced, is a most distressing malady, and mercurial erythema, which is really the same disorder in another stage, is, or perhaps I ought to say was, attended with severe suffering; the restlessness, feverishness, and itching making the patient wretched, while the lassitude, yawning and sighing, which culminated in erethism, were usually an unfailing, if not a very frequent, source of fatal mischief.

The Calomel Vapour Bath.—Hence it is not to be wondered at that practical men welcomed the modifications introduced by Mr. Langston Parker, and still more by Mr. Henry Lee, into the old method of using quick-silver in vapour. The careful researches of the last-named gentleman have shown, that by means of a properly-constructed apparatus, and the addition of a small quantity of watery vapour, a moderate amount of mercury may be made to do the work of a large one employed in the old way. This system I tried in the way Mr. Lee recommends almost as soon as he made it known, and also through the medium of private establishments; I even had a bath fitted up with certain modifications, or, rather, what seemed to me improvements, and placed under the management of an experienced and careful person.

Must be combined with other Means.—The observations made on the action of these baths, and particularly that last described, have now been continued for many years, both with respect to private patients and those who apply at St. John's Hospital with secondary and tertiary disease of the skin. The conviction forced on my mind by these researches is, that in many cases even the most improved form of the bath cannot, when unaided, be relied on to effect a cure; and that, when it does remove the symptoms for which it is employed, its power of guarding the patient

[1] *Op. cit.*, p. 68.

against a relapse is very limited. I have, I believe, tried it thoroughly, sometimes using it singly, sometimes combining it with mercury or iodide of potassium, or both. I have used it with very little, and again with a large volume of watery vapour; with small and large quantities of grey powder and calomel; sparingly in one set of cases, and carried to great exhaustion in others, and I am compelled to say, that often I have not succeeded with it in effecting a complete and lasting cure of the disease. In some cases I have even not made satisfactory progress in the removal of the symptoms present; in others fresh symptoms have continued to break out, and again in others, after four and even five dozen baths, the first child has been born syphilitic. I have seen double iritis show itself when the patient was under the full influence of the bath; and Mr. Coulson states,[1] that in a case where mercurial fumigations were tried by the advice of Mr. Lee himself, they had to be discontinued on account of the increase of sloughing.

It is, indeed, much to be regretted that the powers of this excellent method should be so circumscribed. It is simple, cheap, and convenient in the highest degree, and it is not only much cleanlier than inunction, but it familiarizes patients with a potent and only too much neglected means of cleanliness, the vapour bath itself. The slight faintness which it sometimes brings on is of no moment when the bath is judiciously employed; it never passes into erethism, at least it has never done so in my hands. I have never seen this bath bring on mercurial eczema, though a papular rash sometimes shows itself towards the close, especially if too great heat and too much mercury be employed. Occassionally dropping of some of the teeth follows, and I have fancied that the bath hastens decay in them when this process has already begun; but for the most part these contingencies occur in a very mild form. My judgment, therefore, about the bath is that it forms a safe and very efficacious aid to other treatment, and as such will figure in the system to be afterwards laid down. In recommending it thus, however, I may observe that I am limiting myself expressly to the use of grey powder or calomel in vapour, and that I do not advise the use of other

[1] *Op. cit.*, p. 145.

methods and other preparations, especially cinuabar, which is, indeed, a very objectionable remedy.[1] I can assure the reader that this caution is not superfluous.

Administration of Mercury by the Mouth.—Of all the modes of using the mineral this is to my thinking the most unsatisfactory. I admit its power of removing the visible signs of systemic infection, but I consider the objection often raised, that it does not at the same time really cure the disease, as well established as any fact in medicine. It is quite true that a careful practitioner will, by means of mercury given in this way, effect an improvement in a large proportion of his cases, and that he may use it in almost any number of cases with perfect safety when the patient will observe proper precautions. But this is just what most persons will not do, and the system allows them greater facilities for overstepping limits than the external use of mercury. Now the results of such a mistake are often decidedly worse than if they had been using either inunction or vapour, and even when the greatest strictness is observed this method most frequently of all fails to work a cure. Indeed, I would go farther and say, that there is no known preparation of mercury which, if given internally, can be relied on either for cure or prevention ; and I have seen the disease relapse after trial of so many formulæ,[2] and have so often seen mischief from resorting to them, that I can scarcely help fancying they do on the whole more harm than good.

"Plus homini mali est quam ex re decerpere fructus."

Among the results produced by mercury used in this way, even under the guidance of excellent surgeons, I have noticed rapid, troublesome, and almost uncontrollable salivation, sometimes when only very small quantities of the mineral had been given ; loosening and falling out of the teeth ; swelling, tenderness and even necrosis of portions of the maxillæ ; sinuses in the gums, resisting the most persevering use of caustics, vesicants, and even the actual cautery ; intractable fissuring of the tongue, sometimes lasting for years, despite of repeated attempts to

[1] See also Colles ; *Op. cit.*, p. 140.

[2] The preparations alluded to include blue pill in doses of one to fifteen grains daily ; calomel in rising doses as prescribed by Simon of Hamburg ; grey powder ; both the iodides of mercury ; the perchloride and subsulphate.

cure it, and making eating and drinking a perfect misery; perforation of the hard palate; sloughing of the uvula; bleeding from the bowels, lasting at intervals for months; abnormal sensitiveness of the nervous system, &c. And it must never be forgotten, that when a patient is compelled by any of these symptoms coming on to suspend the use of the medicine, he is most probably in a worse state as regards his chances of being cured than if nothing had been done for him.

After this the reader will naturally be surprised to find me saying that the internal use of mercury after all forms an item in the treatment which I propose to recommend. I, however, purpose retaining it, but, as will be seen, with such a wide departure from the usual modes of giving it, as quite alters the whole bearing of the question.

Iodide of Potassium.—It will now be necessary to examine the action of this drug, the use of which also I propose to retain, and about the properties of which opinions are almost as much divided as about the merits and demerits of mercury. The honour of introducing it is generally accorded to Wallace, but I am not quite so sure on this point as some writers seem to be. The earliest mention of it by him that I have seen is in the "Lancet" for March 26th, 1836; and at the part where he speaks of giving it, he says he had for two or three years been occupied in examining syphilitic cases; but Mr. Judd used the iodide in such cases as early as December 12th, 1833, and gave an account of his observations in a work dated 1836, with a preface bearing date as early as April 20th, 1834.

I am well aware that the iodide is regarded by many authorities as nearly, if not quite, inert on secondary syphilis, and if it be looked at as a specific, simply to be given for a certain time and to a certain extent, I should have little faith in it myself, although I have seen it, used in this way, remove undoubted secondary disease. One of the most complete cases of syphilitic lepra I ever saw, and in one of the worst constitutions, was set right in this way. The patient was of a very feeble frame and hæmorrhagic diathesis; though young he had lost nearly all his teeth. He was somewhat versed in medicine, and had stumbled on a case of mal-treated syphilis where mercury had been used, which so frightened him that he positively refused to hear of it.

He did not object to the iodide, and was therefore treated with it solely, got quite well, remained so, and years after died of a distinct affection, nephritic calculus, the accuracy of the diagnosis being confirmed by a post-mortem examination. During the whole of the intervening period I was in the habit of seeing this patient at least once a week through the greater part of the year, and can scarcely imagine that, if he had had any other symptoms, they would have escaped me. I am sure he would not have hesitated to mention them, and I often spoke to him about the matter.

At one time I gave the iodide in conjunction with simple vapour baths and aperients in every case of secondary disease. Thus employed I often found it effectual. The great obstacle to its use is that it acts so very slowly. For this reason, if for no other, I believe it will never come into general favour. However implicitly the patient may confide in his medical attendant, the latter will often fail in persuading him to go on with a medicine which does not seem to be gaining ground on the disease; and when fresh symptoms break out even while the medicine is being taken, as is almost certain to happen, the most trustful persons will lose faith. They want to see some improvement in return for all the medicine they have swallowed, and that often comes too slowly for their impatience.

Unpleasant Effects of the Iodide.—The list of disagreeable and even serious symptoms set up by this salt is enough to startle one. I suppose so many evil qualities were never ascribed to any drug in the pharmacopæia. Among them we find bright red patches, occasioning itching and smarting; dull red patches crowned with umbilicated vesicles; nettle rash; psydraceous pustules; boils on the face shoulders and back, occasionally even on the lower limbs, sometimes accompanied by pyrexia; disagreeable sensations in the mouth, larynx, throat and eyes; swelling and discharge from the schneiderian membrane, and conjunctiva; loss of vision, apparently dependent on sub-retinal effusion;[1] eczema rubrum;[2] bronchial catarrh, and, according to Simon of Hamburg, real pleuritis! sickness, diarrhœa, pain

[1] Bumstead; *Op. cit.*, p. 529.

[2] Ibid, *loc. cit.*

and weight at the stomach; "pain in the bowels and purging of watery stools;" pain in the region of the kidneys; weight in the head; tinnitus aurium; neuralgia; spasmodic action of muscles; impaired voluntary motion; sluggishness of intellect;[1] and a peculiar feeling of solid lumps in the tongue, first described, I believe, by the late Mr. Langston Parker; the tongue becoming so swollen and painful that the patient, a surgeon, had always to give up the medicine at the end of two or three days.

Still more serious symptoms than any of these are related by Brodie, who gives[2] three cases of insanity resulting from the use of the iodide. In the first the patient was actually placed in confinement as a lunatic; in the second the patient himself said that he knew he was insane, though he had not as yet been put under restraint; in the third the symptoms are spoken of as "very nearly approaching those of mania."

This is not a bad catalogue of miseries to begin with, and I can only assume that in process of time it will swell rather than shrink. I hope, therefore, the reader will be interested to learn that these evils may one and all be averted by very simple means, which in no way impair the efficacy of the medicines, and which will be spoken of more at length further on.

Iodide of Soda.—It will be necessary to say a few words about this salt, which has been recommended as a substitute for the iodide of potassium. We are told[3] that Signor Gamberini tried it in a hundred and sixteen cases of tertiary affections, and found it more certain, as well as less disagreeable, than the potass. It rarely produced irritation of the throat, iodic eruption or ptyalism. This is one of the things in medicine which quite puzzle me. Some years ago I tried this salt, but so far from having any success with it, I never saw reason to believe that it cured, or was likely to cure, a single bad case. My experiments were quite a failure, and I was surprized, at a recent meeting of a medical society, to hear a gentleman, justly considered an authority in these matters, recommending a trial of the soda salt. Mr. Langston Parker used it at Queen's Hospital, Birmingham, and

[1] Bumstead; *loc cit.*

[2] *Works.* Vol. III., p. 676.

[3] *Corrispon. Scientifica di Roma; Marzo,* 1852.

found it succeed where, judging from analogy, iodide of potassium would have been useful. It did not produce any of the symptoms apt to follow the use of the latter; but I believe the results were not such as to encourage Mr. Parker to prosecute his researches.

Nothing has more retarded the improvement of treatment, and the search after what is really the truth with respect to the action of medicines, than the importation of novelties not superior, and often not equal, in power to those already in the field, and such over-strained statements as to their value. Had the iodide of soda really been what it was described to be, more certain and less disagreeable than the potassium salt, one would have thought that it must, in nearly a quarter of a century, have superseded the inferior preparation. If, however, it be, as I believe it is, directly inferior in point of efficacy, then I should say that its introduction and retention are equally injurious. If of equal value to the potassium it would be a superfluous addition to the pharmacopæia; being of inferior efficacy it is worse than superfluous.

Nitric Acid.—About three-quarters of a century ago the profession had an instance of the mischief and confusion which may be caused by these two sources of error; and if anything could warn men against hasty conclusions, it would be such a specimen of the facility with which new and inferior medicines are accepted and extolled as specifics. But I suppose the satire conveyed in the reputation of nitric and muriatic acid, and chlorate of potass, and especially of the former, as invaluable remedies in the treatment of syphilis, was and remains as instructive as such lessons ever are. It would be of little avail now to call back to life even a brief and faint shade of the disputes which sprang up all at once about the merits and demerits of these preparations, and I merely mention the subject because I wish to justify myself in saying, that I have carefully tried all parts of the so-called simple treatment.

Acids, principally, so far as my reading goes, citric and nitric, had been tried in this complaint, and laid aside again, perhaps forgotten, when a communication on the virtues of the latter by Mr. Helenus Scott to Sir Joseph Banks, in 1796,[1] set the

[1] *Essays on the Venereal Diseases*, by William Blair, Surgeon of the Lock Hospital, 1798, p. 22; Part II., p. 134.

medical men of that day, most interested in the treatment of syphilis, as effectually by the ears as though the Goddess of Discord had descended bodily among them with her fatal apple. Rarely, indeed, has the most fashionable craze of the day had such a run as the nitric acid; the nitrous acid, which some of the combatants seem scarcely to have discriminated from it, and chlorate of potass also came in for a large share of professional favour, but the favourite throughout was the nitric acid. It was soon tried more or less extensively at Chatham, Woolwich, Portsmouth, and Plymouth Hospitals, at the Lock Hospital in London, at Edinburgh, various places in the provinces, and in America, a very full account of which will be found in Mr. Blair's work.

The result of the trials was that some extolled the acid as a specific, safer than mercury, and superior to it in efficacy; indeed, the latter drug was to be banished from the therapeutics of syphilis, while others found it so entirely useless that they could never cure a single case of real syphilis with it. Opinions were in such direct conflict, that Pearson professed himself "quite unable to reduce them to a parity of sentiment." The dispute was from the first conducted by the advocates of the acid with vehemence, the assertions made and the expressions used being of the most positive character. As it went on this increased, till taunts, personalities, and recriminations seem to have quite embittered men's feelings, and at last the whole subject became enveloped in a cloud, under which it disappeared, almost as quickly and inexplicably as it had risen into notoriety.

One thing became quite evident in the course of the debate. Every one of the antagonists proved his case to his own satisfaction. The advocates of the acids showed that they cured every form of primary and secondary disease. Their opponents contended that they exerted no visible control over the symptoms and even exasperated them, though some of them admitted that these remedies exerted a beneficial influence over the health, that after a course of them mercury acted all the better, and that where they failed mercury often failed also. Dispassionate criticism shows as usual that there was some truth on both sides. After making every allowance for enthusiasm, enough remains to show that numerous cases of open bubo, ulcers supervening upon

or resisting a course of mercury, and so on, were cured by nitric acid; and for these symptoms it has scarcely had its fair share of patronage for some years past; it also shows that a proper use of this remedy improves the health. For these reasons I have retained both nitric and hydrochloric acid as part of the treatment. As to any direct anti-syphilitic power, such as is displayed by mercury and iodide of potassium, I have not been able to detect it. I tried these acids, both singly and combined with other means, for quite eight years, and never saw them in any dose or form ameliorate the symptoms of secondary syphilis, except in so far as these were dependent on disordered health.

As to quinine, iron, bitters, &c., I have never seen but two results from using them. Either they proved perfectly useless or they exasperated the disease. Some surgeons have recommended that the iodide of iron should be given along with the potassium, and at one time I prescribed it extensively, but I never in a single instance discovered the slightest benefit from doing so. I then tried other preparations of iron, and after being just as unsuccessful with them in numerous cases I gave up all further attempts in this direction. M. Després strongly recommends both iron and quinine; but his object seems to be the exasperation of the disease, as he clearly thinks, that the more we can hurry on the evolution of symptoms, and the less we interfere with the outbreaks, the sooner does the system throw off the incubus of the disease.

Syphilization.—In a work professing to deal essentially with treatment some notice, however cursory, of this part of the subject is absolutely necessary. I have never tried the remedy, and feel little inclined to do so. What, therefore, I have to say, is borrowed from others, and has not impressed me favourably. There can be little doubt that the practice will cure certain cases of secondary syphilis, or at any rate that these get better while it is being put in force. Its control over tertiary disease seems much more limited. Some authors consider it inert, and think that the rest, good feeding, and discipline are the real causes of the improvement observed, an opinion which seems plausible enough. However, I think we shall not err very materially in admitting that it exercises some control over the disease, particularly over the milder symptoms of it.

Syphilization has undoubtedly failed in the hands of men in every way disposed to make a fair and even a favouring trial of its powers. It was tried at the Lock Hospital in London in twenty-seven cases. One of these proved refractory to inoculation, and out of the remainder twenty-one were slight and recent cases, which would most likely have got well under any system of treatment, and even under no system at all. There was only one case of tertiary disease, and in that it quite failed. The rest were instances of squamous eruptions. One of them, of three months standing, was cured in six months, one of five months duration in five months, and one of six months in four months; the real explanation, I suppose, being, that these cases really ran much their natural course, and were affected by syphilization as much or as little as they would have been by some counter-irritant. One case is unaccounted for.[1]

Again, it has failed in France, and Dr. Bumstead, who tried it, as he tries everything else, with great care and impartiality, does not seem at all prepossessed in its favour, though he says[2] that it is equal and perhaps superior to the treatment by mercury. Mr. Lane does not appear to have found that it effects a permanent cure.[3] Indeed, out of Norway, I do not know that it has anywhere taken root, unless it be at Edinburgh, under the fostering care of Dr. Patrick Watson.[4] Nor do the results obtained by means of this method seem to have altogether convinced even the Norwegian physicians. According to Zeissl,[5] quoting, apparently, from the "Medical Times," a quotation, however, which I have not been able to verify, Oewre, formerly assistant to Boeck, is a decided opponent of the practice. At a meeting of the Medical Society of Christiana, in 1869, Dr. H. Vogt, late assistant physician to the Maternity Hospital, Dr. J. Vogt, army surgeon, and Dr. Budd, physician to the king, gave strong evidence against Dr. Boeck's views.

Lastly, we can scarcely avoid surmising, that some of those who have enthusiastically taken up the pen in favour of this system do not care to put their convictions in force. M. Robert

[1] Coulson; *Op. cit.*, p. 255.
[2] *Op. cit.*, p. 544.
[3] *Report*, p. 241.
[4] *Report*, p. 376.
[5] *Lehrbuch der Syphilis*, 1875, B. 2, S. 344.

says [1] inoculation cures syphilis medically, but I believe he does not syphilize his patients. Dr. Morgan considers [2] the weight of evidence in favour of the treatment, and says that Dr. Ruttledge, who had recently seen the effects of the system at Christiana, told him that they contrasted very favourably with those from mercury. Dr. Morgan would, himself, prefer half-a-dozen "inoculation treatments" to the misery for "sees people undergo every day from syphilis." Why, then, does he not treat his patients by syphilization? A few well-observed, successful cases, showing that the disease could be better managed in this way than by the ordinary means, would do more to convince men than a volume of disquisitions and recommendations.

In England there is probably too strong a prejudice against syphilization to admit of its being widely tried in private practice, except perhaps in the case of tertiary disease which has run the gauntlet of other methods, a condition which, according to Professor Boeck, quite negatives any chance of success. In other words it is most sure to fail where we most need its aid; besides, we cannot always syphilize when we want to do so.[3] Coupling with these facts the irksomeness, confinement, expense, the long duration of the system, and the revolting nature of the operation itself, I really think there is not much to regret in the disfavour it has met with in England.

Way in which Syphilization acts.—Such beneficial operation as the method may really possess, must, I think, be set down to the account of its acting as a counter-irritant. I do not see fair evidence that any other therapeutic or physiological action can be ascribed to it. M. Auzias Turenne and M. Sperino consider that it acts by saturating the system with the poison, but Mr. Lee clearly points out [4] that under such circumstances the constitutional disease ought to get worse instead of better. I will, however, take the liberty of going beyond this, and saying, that those who believe in such a creed would find some difficulty in proving the fact of saturation to begin with.

As to the power of vaccination with cow-pock lymph, or repeated blistering, to cure syphilis, I have nothing to say. I

[1] *Op. cit.*, p. 754.
[2] *Op. cit.*, p. 269.
[3] Lee; *Op. cit.*, p. 55.
[4] *Op. cit.*, p. 47.

have made no trials with them myself, and those made by others are not to my mind of a very encouraging nature.

Treatment Recommended.—I therefore pass on to the consideration of the treatment which a long series of trials, continued now with little interruption for several years, has induced me to think better than any I have seen used or have read of. Indeed, I may as well say at once, that nothing but a conviction of its greater efficacy would have led me to bring it before the world. So much has been written about the therapeutics of syphilis, that, in my opinion, success would alone justify an author in intruding with anything more upon his readers. Before going farther it will be necessary to say a few words as to the class of cases to which it is suited.

First of all we may eliminate every case in which the patient cannot or will not give due attention during quite three months to what is ordered; where the patient is afraid that the treatment will weaken him, or that he shall catch cold on it; where he stipulates that no mercury shall be given him; that he shall not shall not be too much pulled down; and, above all, where there is always some excellent excuse for not reporting progres at the appointed time. Without any reservation, I say that the surgeon is, as regards their treatment, better without such patients. He will do them no good, and they will do him no credit. Accordingly, I have long ceased to order anything beyond preliminary measures, till I have satisfied myself that the patient is in earnest.

Having thus cleared the way, the next consideration is what class of cases really require the treatment. The reader must bear in mind that everything is here made subservient to a radical cure, and that out of any given number of cases, say fifty or a hundred, there must be many in which radical measures are necessarily superfluous. It seems beyond doubt that out of such a number the disease would, in a certain proportion, die out of itself after two or three outbreaks. I have repeatedly seen this with patients who recklessly disregarded all rules both of treatment and of common prudence, and others have noted [1] much the same thing.

[1] Després; *Op. cit.*, p. 457, &c. Diday; *Op. cit.*, *Report*, p. 375.

If, then, we could determine beforehand which class of cases would run this course, it would be much better to separate them and leave them altogether untouched. But we have no machinery for calculating how events will shape themselves. Except Dr. McDonnell, I am not aware that any one has made an attempt to calculate what will result from a particular eruption appearing at a given time ; yet, till this point is decided, selection must be a mere matter of chance. However, I think that under any circumstances we may say, that a radical treatment is advisable in all cases where the disease, with the continuance of time, or with each relapse, assumes a more serious character ; when, after years, it has, though slight, shown no disposition to die out ; when the patient wishes to marry ; when previous treatment has been unsuccessful, and lastly, when the patient, having had all the facts of the case placed before him, decides rather to go through the course than to run any risk of farther disease.

The treatment itself consists of 1. preliminary or preparatory means ; 2. of a course of iodide of potassium accompanied or not by perchloride of mercury ; 3. of mercurial baths ; 4. of treatment somewhat like the Zittman. It is applicable to any stage of the disease and to any constitution, and is really an expansion of the method I laid down many years ago in the "Edinburgh Medical Journal ;" a fact, I think, necessary to point out, because I have been spoken of as recommending simple treatment, whereas I suggested something widely different, and opposed, not so much mercury, as the usual modes of giving it.

Preparatory Treatment.—Before the patient takes a single bath, or a dose of the iodide, I would advise that his medical attendant should satisfy himself that there is no complication present likely to interfere with these medicines being given. The next thing is to put the patient for two or three weeks through a course of aperients and salines, so arranged as to keep the bowels always rather freely open. On no account should this be omitted. If the surgeon wish to avoid defeat at the very outset, through the irritation set up by the iodide, he will insist upon this preliminary, without the due observance of which I would not answer for anything going on well. Having carried this through, the same medicines are continued occasionally all the time the iodide is taken. Should the appetite be very bad and the tongue coated,

nitric or nitro-hydrochloric acid is given for a week or so after the course of salines, which, however, are also continued occasionally while it is taken. I know of no better formula than that at page 9.

Iodide of Potassium.—Having got the tongue clean and the bowels freely opened, the iodide of potassium is begun with. There are two precautions necessary for taking this medicine properly, which I do not find laid down by any author, and therefore I point them out here. The first is always to begin with a small dose not exceeding two or three grains two or three times a day. The second is to give the remedy in a proper vehicle, such as some bitter tincture or infusion, which suits the patients' palate, and conjoined with a little warm aromatic tincture or syrup, such as cardamoms, cinnamon, orange, &c. In hospital practice I prescribe quassia or calumba, and direct the patient to make a little syrup of orange peel, or get some essence of ginger, and add to the medicine. I can assure my readers that these precautions, aided by a reasonable amount of care on the part of the patient, will suffice to avert all the horrors of which I have given so long a list.

If, at the end of a week, the medicine has set up no symptoms of irritation, the dose may be gently increased, and this is kept up the whole time that the iodide is taken. I usually add a scruple each week to the previous quantity. Sometimes in the case of delicate women I have thought it advisable to order less; in not a single instance did it seem desirable to go beyond the scruple. Thus employed, the iodide has never in my practice disagreed with the patient, but should it do so, should there even be signs that this disturbance is at hand, the only plan is at once to suspend the medicine. The loss of a few days at the outset can count for nothing against the risk of defeating everything by over haste.

At the end of two or three weeks the twenty-fourth to the sixteenth of a grain of corrosive sublimate may be added to each dose of the medicine, and this quantity can be cautiously increased up to the twelfth or eighth of a grain two or three times a day. Generally this medicine is very well borne, but I have occasionally had a patient who could not take even the twenty-fourth of a grain on account of the griping it set up. These medicines

are continued till a decided effect is produced on the disease; for the most part this begins to show itself in from four to eight weeks, and so soon as this is clearly visible baths are begun with. The iodide and perchloride, always supposing the latter agrees well, are continued so long as the baths are taken. The use of these is, therefore, the real guide to the length of time the administration of the medicines is kept up. Consequently the bath is a very important part of the question, and one I propose going into somewhat at length. Before doing so, however, I wish to say a word or two about one or two matters of some consequence.

During the whole time that the patient is taking either salines, specifics, or the purgatives which follow the baths, the diet should be essentially light, consisting of veal broth, chicken broth, mutton broth, light puddings, milk, white fish, &c. All malt liquors and coarse spirits should be sedulously avoided, and only some light wine allowed. When there is a good deal of prostration, and the weather is hot and thundery, champagne and hock may be given. After the patient has begun with the baths, it is a very proper precation to avoid all unnecessary exposure to cold, wet and late hours. I don't know that the precaution is absolutely necessary, but I can conceive that harm might arise from neglect, especially if the patient happened at the time to be under the influence of the perchloride. Besides, calling his attention to such matters has certainly the advantage of making him generally more careful.

Vapour Baths.—Directly the surgeon has satisfied himself that the patient is really in earnest, and will take his medicines regularly, I would advise that the use of vapour baths should be begun with. At least one should be taken every week till the mercurial vapour is called for, and it will do no harm to have two weekly. When the patient can procure these to his satisfaction at a bath-house, he has only to go there and take them. If that be impracticable, and it is only too often so, I would recommend his having recourse to a bath which I have now used for some time, and which I described in a small work on the subject,[1] and which has now been very materially improved upon.

[1] *The Modified Turkish and Vapour Bath*, 1874.

Before summarizing this account, which I now proceed to do, I may point out a few of the advantages it possesses.

Properly studied and managed it never fails to effect its purpose, and I have repeatedly in a very short time produced free perspiration in a person suffering from ichthyosis or extensive lepra. It can be so regulated that a delicate girl, or even a child, can bear it, or the temperature can by means of the blast lamp, and the substitution of dry air for watery vapour, be raised to any degree between 160° and 220°. It is cheap, cleanly, and safe; it creates no unpleasant smell, and makes no dirt; it can be carried in a small carpet bag; and is so strong that it cannot be injured except by violence. While the patient scarcely gets warm in any portable bath that I have seen used, even those which are so strongly recommended in advertisements, he is here in five minutes bathed in perspiration, and glad to quench his thirst with anything he can get to drink.

If the price, three guineas, be objected to, it may be rejoined that this is infinitely less than that of any really efficient bath; that the apparatus will last in good working order for years, and can at all future times be used, either for the comfort of a vapour or turkish bath at home, or for any of the exigencies of domestic life where hot water is required, seeing that it will boil water in less time than it takes to lay and light a fire. Still, if the patient find the price too high, and can manage to give himself a good steaming in any other way, there can be no objection. The great difficulty is that so few persons can or will take the trouble of devizing a bath, or carry out any system, where much is left to their own judgment. I generally recommend a half brick to be made as hot as possible in the fire by means of the bellows, and then to be put into a zinc pail half full of water. The pail is placed under a cane-bottomed chair, on which the patient, well wrapped up in a blanket, sits as long as he can well support the process.

The bath just spoken of consists of a small lamp yielding a great heat, a tubed reservoir, and a light but warm and comfortable waterproof covering; the mode of employing these will be pretty clear to the reader if he will kindly take the trouble to master what follows.

In the annexed diagram and sectional drawing (fig. 1 and

fig. 2) A A indicate the reservoir for the water, having in the centre a well, B B, which again communicates with the outer edge and lower surface of the reservoir by means of eight radiating tubes, C C. In the centre of the well is a chamber, D, for receiving and confining the heat. It is in the form of a four-armed cross, open below to the flame of the lamp, over which the bath is placed. The water is poured into the reservoir, and fills the shaded part (fig. 2). The arrows (fig. 1) show the direction of the flame, which acts almost simultaneously on the inside of the chamber, D, on the tubes, C C, on the bottom of the reservoir, A A.

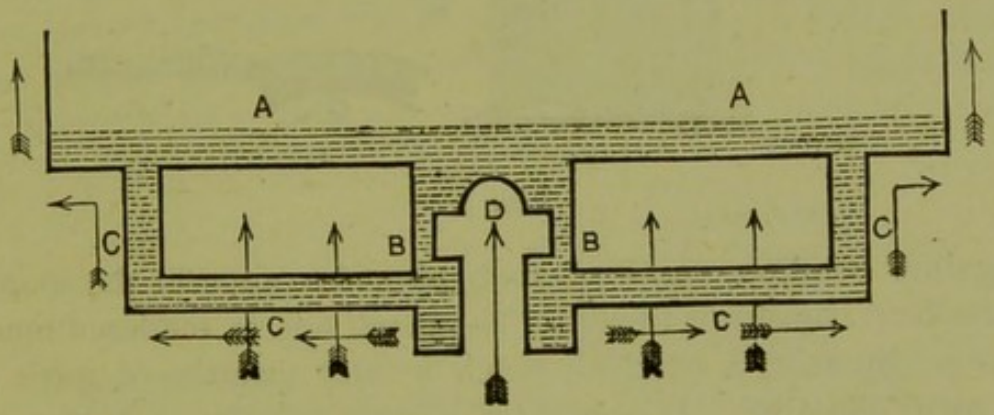


Fig. 1.

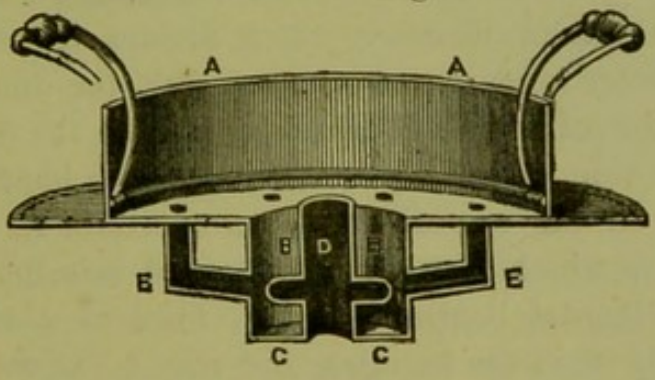


Fig. 2.

It will, I hope, be seen from this description that the heat is so distributed into the middle of the water, so diffused, as it were, through the whole mass, that a very slight amount of caloric thus imprisoned, so to speak, in the very body of the fluid, acts with great rapidity, quickly passing along the tubes, and from the chamber into the upper stratum, which is itself heated at the same time. A much larger surface is thus exposed

to heat than could be done with a bath of the same size on the principle usually adopted for warming water, that of simply exposing a plain flat surface to the fire.

The Blast Lamp.—The heat is procured by means of a russian or blast lamp (fig. 3); but a considerable alteration, and I hope I may say improvement, has been effected in it. The bearing ring is made much stronger than that in ordinary use, to secure

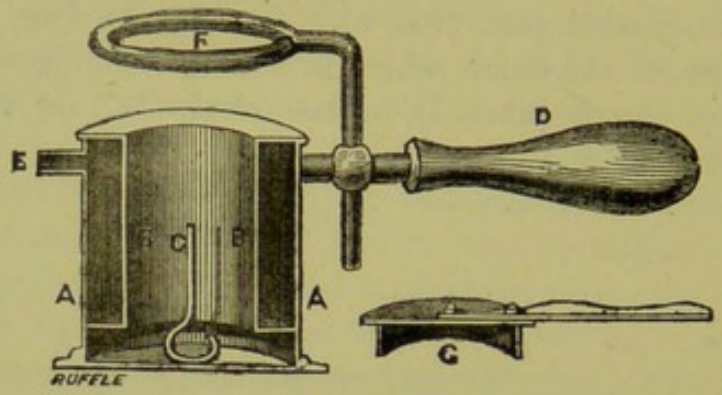


Fig. 3.

it against bending, and is securely pinned to prevent the weight of the bath causing it to slip. The blast, too, is rendered much stronger by using a relatively much greater quantity of spirit in the outer chamber. It consists of a brass cylinder, A A, (fig. 3,) 2½ inches in diameter, closed at the bottom, containing a second cylinder, B B, ¾ in. less in diameter, which divides it into two chambers. The outer one communicates with the inner by means of a fine tube of metal, C, which rises from the floor of the latter. On one side of the outer chamber is the handle, D, of the lamp; and on the opposite side an aperture, E, closed with a cork, through which the spirit is poured into the outer chamber. The horizontal bearing-ring, F, fixed to a vertical bar, slides up and down in the handles, and may be adjusted by the thumbscrew to carry the bath at any required height above the lamp. The inner chamber is provided with a brass cover, G.

So great is the heat thus generated, and so effectively is it disseminated through the water, that the latter boils with a rapidity which rarely fails to excite surprise in those who see it. Ordinary hot water, 140° to 150°, passes into violent ebullition in about two minutes, and in some of the baths cold water boils in three minutes. To secure this result, however, the flame

must first of all be suffered to rise under the pressure of the vapour from the outer chamber, and indeed this precaution is really necessary in all cases, to prevent the bath, when placed in the bearing-ring, putting out the flame.

The Ring Flame Lamp.—But for some time past I have restricted the use of this lamp to the purpose of producing dry heat, which it does very well indeed, by simply enclosing it in a thin iron case, having a lid pierced with numerous holes, each too fine to allow of much flame passing through, and have employed instead a modification introduced by Mr. Walters, which contains some great improvements. In this lamp (fig. 4) all communication between the two chambers is done away with, and, as a matter of course, the blast pipe. Instead of this the upper rim of the outer chamber is pierced with a row of small holes, A A A, through which the steam of the spirit heated from the inner chamber escapes, and, coming in contact with the

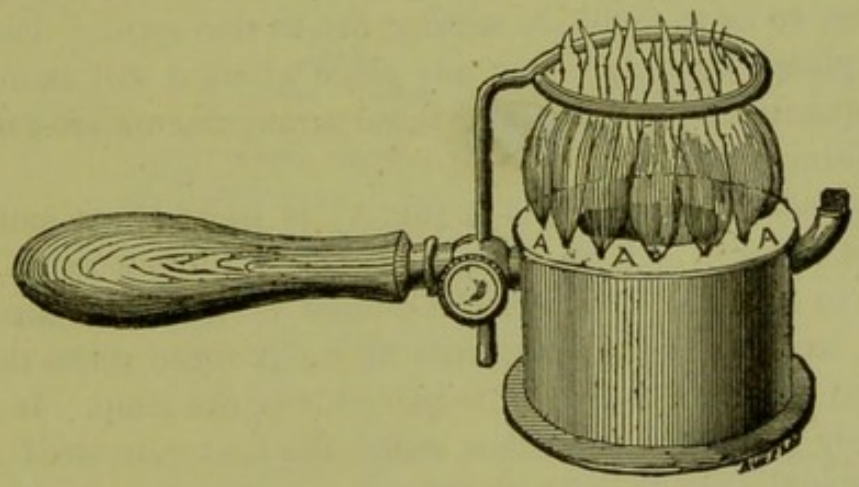


Fig. 4.

flame from the inner chamber, takes light and forms a series of blazing jets, which act with great quickness and steadiness. The advantages of this lamp are that the violent heat arising from the blast lamp when the opening of the pipe has been worn too large, and the roaring made by the strong single current are avoided; that in consequence of the blast being broken up, the heat, though the flame is turned inwards, is applied more gently and uniformly, and that there is less risk of the bath being acted on. The tube leading to the outer chamber is, in this lamp, bent upwards, thus allowing the spirit to be poured in with greater facility.

The bath is used as follows:—The bather undresses to his shirt and slippers, so as to be ready. The lid, G (fig. 3), covering the inner chamber of the lamp is to be removed. The cork, *e*, of the tube leading to the outer chamber is to be withdrawn. Eight drachms of *good* methylated spirit should be poured, by means of a very small funnel or a measure-glass, into this chamber, holding the lamp on one side, so as to avoid waste of spirit. The cork is then replaced. Four drachms of spirit are poured into the inner chamber. The lamp is now lighted by applying a burning match to the spirit in the inner chamber. The object of doing this at such an early stage is to secure thorough ignition of the spirit, and prevent the flame being put out when the bath is placed over it. Sometimes this process must be repeated, as the best spirit will go out now and then. Lighted paper should never be used in preference to the match. In cold weather the lamp should be gently warmed after charging, so as to facilitate setting fire to the spirit. The lamp is now placed on a table, or any place where it will stand firm. These quantities of spirit and these arrangements are suited to either form of lamp.

The body of the bath, A A (fig. 3), is to be about half filled with hot water, which is immediately after thrown away. This is done to heat the bath. Seven ounces of hot water are again poured into the same part, thus filling it quite up to the wire ring, and the bath is carefully placed over the lamp. It is not absolutely necessary to use hot water, the heat generated by the lamp is sufficient to boil it, even when cold; but it is a great economy of time and fuel to do so, and I need scarcely say that so small a quantity can generally be procured. Unless the patient wishes, for some particular reason, to prolong the employment of the vapour, seven ounces of water will be quite sufficient. All that is requisite for ordinary purposes will be gained by converting this quantity into steam. The bath is accordingly marked inside with a wire ring, to show how high this amount will reach to. Until the patient has become quite habituated to the use of the bath, I do not advise that he should expose himself to the heat for more than ten minutes, and the amount both of the spirit and water is calculated on the basis of affording this and no more, but of affording it most effectually. Should he, however, desire

to continue the use of the vapour, his object is easily carried out by adding more water, say four, five or six tablespoonfuls, and increasing the spirit in the *inner* chamber by two or three drachms. This, however, is one of the points which are perpetually being modified by experience. Some persons can never bear the vapour for more than a few minutes; others are so little influenced by its action that it would almost seem as if they could support its action for an indefinite time.

The bearing-ring of the lamp being adjusted, as before directed, to a height of seven-eighths of an inch or an inch between its lower surface and the top of the lamp, the bather should wait a few moments till the flame begins to rise well up. With the larger baths now used, and the ring-flame lamp, the height must be greater, say about an inch and a quarter. Taking the bath by the handles, he should place it on the ring, the lowest part of it slipping through the latter (see fig. 5). Should the flame

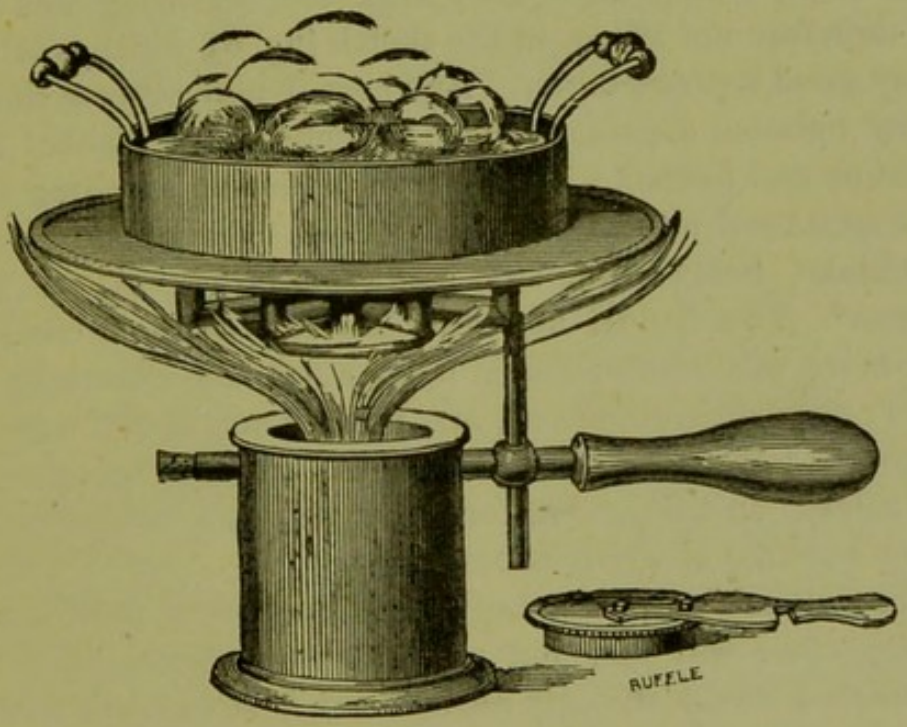


Fig. 5.

die out, he has not waited long enough, and must relight it and replace the bath. Having satisfied himself that the lamp burns freely, he should grasp the latter firmly by the handle and place the whole on the floor, under a chair. If the floor be coverred with carpet, it is scarcely requisite to insert anything between it

and the lamp, but a tile is essential for this purpose if we have to deal with such substances as floor-cloth, linoleum, &c.

The next step is to fold a thick turkish towel, and place it over the seat of a strong cane-bottomed chair in such a way as to cover all the openings. The fringe should be turned inwards, so that it may not catch when the bather is sitting down, or be exposed to the flame when he is placing the bath on the floor. After a very little practice he will easily be able to regulate this so as to allow just sufficient heat, and no more, to pass through the seat. Possibly he may in process of time be able to dispense with this part of the arrangements; at the outset I am sure he cannot. Having done this, he should put on the flannel-lined crinoline, tying it round the neck (or, if he prefer it, the flannel and crinoline separately), then grasp it at the back, lift it carefully up, and, sitting down in the chair, let it slip over the back and then down in front, setting the feet at the same time on a stool, a step introduced after the engraving was drawn, and therefore not shown in the sketch (fig. 6), which is otherwise a very good representation. And here I may observe that it is, in my opinion, a great mistake to substitute a blanket for the crinoline and flannel. The heavy mackintosh covering which I have seen used with the calomel bath is, to my thinking, equally a mistake, being cold, stiff, and comfortless in the highest degree.* The flannel and crinoline is both more comfortable and more efficacious; being light, warm, and effectually water-proof; requisites which cost Mr. Walters and myself a great deal of trouble to secure, all the materials at first tried being too heavy and thick. In the present form the bath is a luxury, instead of being a source of wretchedness.

For ordinary purposes, and if used only for a short time, any strong chair will do; but should a long series of baths be required, I would strongly recommend a stout chair made with tenons, as in course of time the heat and moisture might loosen the joinings, by acting on the glue. I would also recommend weakly persons who suffer much from cold feet, to use a wooden stool, first thoroughly warming it, and always to take the bath

* The whole apparatus can be had of F. Walters and Co., surgical instrument makers, 16, Moorgate-street, Bank, E.C.; 7, Southwark-street, London Bridge, Borough; and 12, Palace-road, St. Thomas's Hospital, S.E.

in winter in a room with a fire. Mr. Walters supplies chairs of the kind named.

The water in the bath, if not actually boiling by the time that the patient takes his seat, soon gives audible notice that this process is being set up, and in a few minutes he begins to perspire

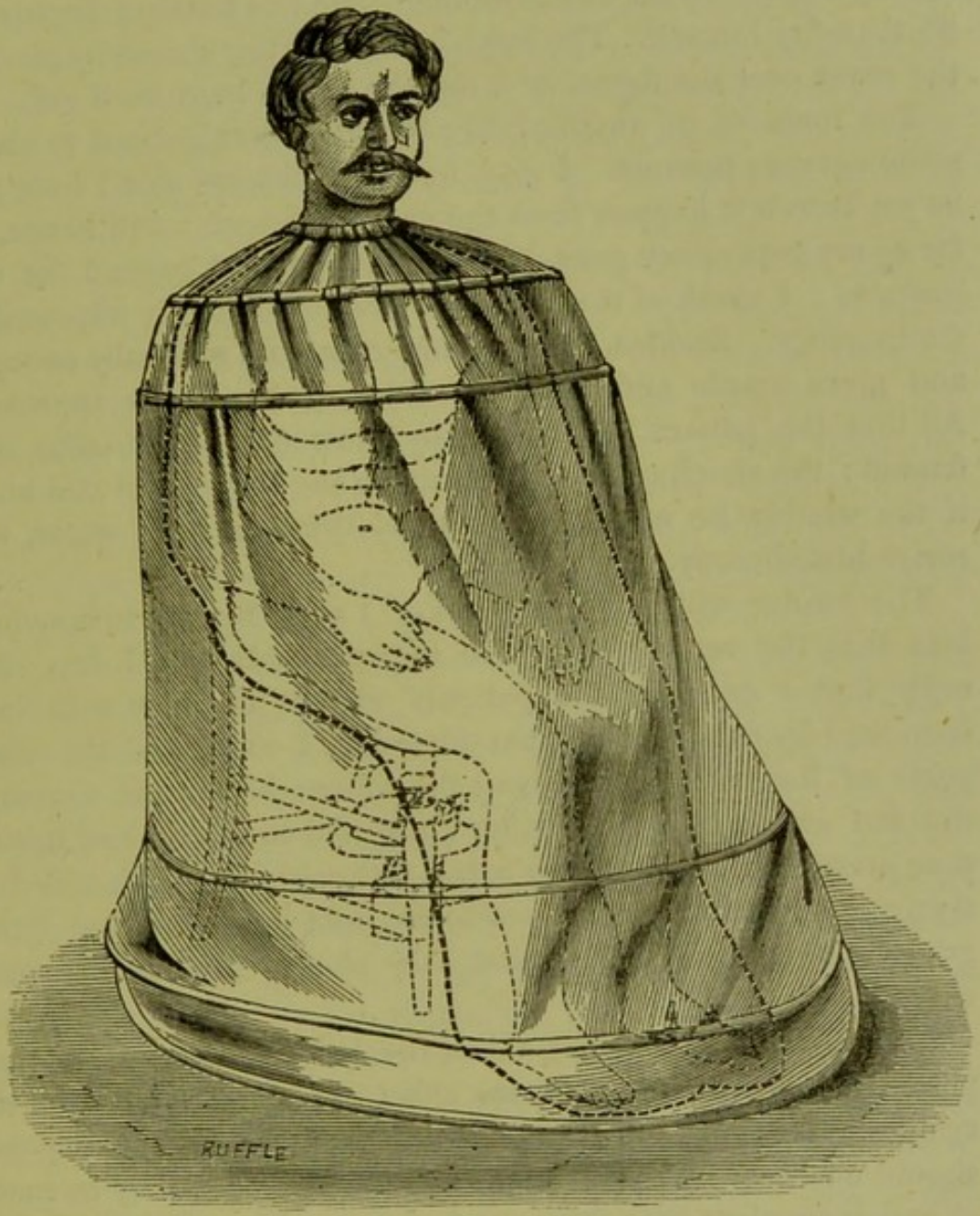


Fig. 6.

freely. That this is not solely due to the vapour collecting on the skin is, I think, shown by the fact that the face, which is protected from it by the crinoline and flannel, also becomes covered with moisture. So soon as ever this symptom shows

itself, or even before, the patient should knead and rub himself all over, so as to promote the sweating to the utmost of his power. Should he feel at all thirsty, he may safely drink a tumbler of cold water. It refreshes him very much to do so, and the practice is a perfectly safe one. When he thinks he has had enough of it, or begins to feel in the least degree faint, he should rise up and throw off the crinoline. He has nothing further to do than dry himself. The lamp is easily extinguished by placing the cover over the flame, or it may be left to burn itself out.

The mention of anything like faintness is calculated to alarm some nervous persons. I may, however, observe that I have not as yet known it happen from the use of the bath ; and hence, so far as my experience goes, there is not the least ground for uneasiness. I speak of it simply as a possible but very improbable contingency. Besides, the symptom comes on gradually enough, and gives ample and unmistakeable warning of its approach. All that the patient has to do is to throw off the crinoline and flannel ; the shock of the cooler air on the frame, and still more if the window be open, with a good drink of cold water, will revive him directly.

The reader will very likely ask if I wish by this to convince him that the vapour baths are indispensable, but I can only reply that I consider the patients' chance of cure materially increased by using them ; that for years I employed the other parts of the treatment without the vapour baths, and certainly did not get on so well as after I resorted to them ; and having thus pretty fairly tested their value, I should not feel justified in trying experiments which seem to me both hazardous and retrograde. I therefore advise that they should not be dispensed with.

Calomel Vapour.—Having taken the iodide of potassium and perchloride of mercury till some effect has been produced on the symptoms the patient begins the use of the calomel vapour ; should no effect be produced the commencement may be made at any convenient time from the fourth to the eighth week. If access to it can be procured, perhaps nothing answers better than the standing bath such as is used at St. John's Hospital, where a powerful blast of vapour is first of all turned on, and then, when the patient is thoroughly heated, the calomel is in-

troduced and converted into vapour, thus acting both gently and certainly. One great advantage of this system is that the patient cannot misunderstand the directions given him, and that the surgeon has full opportunity of knowing whether or not the baths are taken properly and regularly, and how the patient is affected by them. We are all of us but too well aware how often the simplest rules are misunderstood, and how effectually a mistake will convert a valuable remedy into a source of mischief. There is, however, one disadvantage attendant on a bath of this kind; it does not answer so well when the patient resides at a distance, as any lengthened exposure to cold and wet is most undesirable.

I have therefore for some time past used the portable bath in these cases, employing it as follows:—An extra drachm of spirit being placed in the inner chamber, the patient takes an ordinary vapour bath for ten minutes; he then rises, extinguishes the lamp, dries himself, removes the tubed reservoir from above the lamp, and then places on the bearing ring a disk of tin on which the calomel has already been laid, relights the lamp, the spirit igniting at the first contact of the match, reseats himself, and sits in the vapour as long as may be thought desirable.

If neither of these means can be made available, Mr. Lee's lamp may be used, or what, with all deference to this careful observer, I consider simpler and cheaper, the lamp which Mr. Walters makes for me. In it the cage is done away with, and the disk, which is fixed, simply rests on three uprights. Whichever be employed, I would recommend that if possible the flannel lined crinoline be substituted for a blanket. It is more comfortable and more efficient, and it has this advantage over the heavy mackintosh sometimes recommended, that it averts the forming of a layer of a black pigment, which, wherever it touches the patient, stains his skin as if it were painted with a brush, and which, I suppose, arises from the formation of black sulphuret of mercury, owing to the sulphur of the waterproof acting on the sublimated quick-silver.

The mercurial fume is used at first twice a week for a fortnight or three weeks, more generally the latter; then for another fortnight three times a week, and then, if possible, every night till considerable progress has been made in removing the visible

signs of the disease. As a rule I find that twelve or thirteen baths in this way, or four or five and twenty in all, properly taken, suffice. After this the fume is given up. If, when beginning, the patient be weak and low, or much afraid of vapour baths and calomel, the body merely is exposed at first to the action of the fume, and only a very small quantity of calomel, say five or six grains, is consumed each time. This obstacle being surmounted, the surgeon can go more boldly to work, directing the patient to inhale the vapour a few times towards the close of each bath; at the same time the amount of the calomel can be gradually raised to ten, fifteen, or twenty grains, beyond which I rarely find it necessary to go, though I should have no hesitation in doing so. Occasionally, however, the calomel vapour sets up so much irritation in the throat that it must be given up, and whatever may have been said to the contrary, the patient has to me certainly appeared in several cases to get quite well without inhaling at all.

Mr. Berkeley Hill says,[1] that after taking the fume bath the patient should at once go to bed, and remain between blankets, and that as the depression is sufficient to cause some persons to faint, an attendant should always remain in the room while the patient is in the bath. He also speaks of the debility and headache felt by some persons the day after the bath, and tells us that these may be avoided by lessening the quantity of steam and shortening the duration of the process.

These remarks are very important, and point to what I must consider a grave error in the mode of employing this valuable remedy, and a misapprehension as to its mode of action. As a matter of fact I must consider the practice wrong, and in the case of private and out-door patients almost an impossibility. With them the necessity for going to bed and remaining between the blankets for an hour or two after using the standing bath at the hospital, or some bath at a private establishment, would at once render the recommendation to employ the bath at all inoperative. Besides, I submit that the step is not called for; although constantly giving these baths, I have not been able to notice that their operation is in any way checked by the patients going

[1] *Op. cit.*, p. 298.

out into the air almost immediately after taking them. As to the attendant remaining in the room, I believe it to be a useful measure when the fixed bath is employed, and have always directed it to be carried out. So far, however, the rule has proved superfluous, as not a single patient has complained of faintness, and I believe it quite unnecessary to push the baths to such an extent. Finally many, indeed most, of those taking the bath at home must dispense with such assistance, and from experience I can say that they may quite safely do so. The rules given for counteracting any disposition to swoon when taking the simple vapour bath hold here.

The usual mode of giving the calomel bath looks to me very like an attempt to reconcile two principles which are diametrically opposed to each other, and to harmonize theory and practice, which are in direct conflict. Free perspiration is to be induced in order to expedite and facilitate the elimination of the virus ; yet if induced, it may hinder the absorption of the calomel deposited on the skin ; the state of perspiration is to be prolonged ; but this may induce faintness, which is to be averted. Here I am not distorting or garbling opinions in any way ; nothing could be easier than to establish what I have said by the very words of those who have written on the subject.

If free perspiration be the object aimed at, it is much more effectually secured by the bath I have recommended than by that usually employed, and this, too, without bringing on faintness. I consider I have good grounds for asserting, that a moderate degree of heat continued for a long time is far more likely to induce this disagreeable occurrence than a high temperature for a short period. Another potent means of escaping all disposition to swooning is to ensure perspiration first, and to apply the calomel afterwards, as recommended. I do not see how, with the ordinary bath, sweating can be relied on unless fainting is risked. The temperature is so low, and the quantity of water so small, that, to set up due action of the skin, the operation must be prolonged or prove a failure in respect to the point in view. So long as the water in the gutter of the Lee bath is not greatly evaporated, the calomel is not sublimated to any appreciable extent. At the end of ten minutes, and even when quite half the water had boiled away, I have taken off the calomel,

weighed it, and found no perceptible diminution. When the apparatus was placed by a window in a bright light I could not detect any vapour arising from it till towards the close of the evaporation of the water, when it was at once seen ascending to the height of two or three feet.

I was once told by a surgeon, that he supposed I would admit the virus was eliminated in this manner; if I denied this, how did I explain the action of the mercury, seeing men agreed in believing that it stimulated the emunctory properties of the skin? I replied, that not having invented the theory, or having said or written a single word in support of it, the explanation of this, or any other, difficulty besetting it, formed no part of my business; that was a task I left to the supporters of the doctrine. The question, having been once asked, might be asked again, and by the reader; if so, I have no other answer to give.

After one or two days rest the patient begins a course of Zittmann treatment, so modified, indeed, that I do not feel sure this name can be properly given to it. I suppose most of my readers are aware that the ordinary Zittmann decoction consists of two preparations, a stronger and a weaker one. In the former sarsaparilla is boiled in water; after a short time a bag containing alum, calomel, antimony, and sugar is thrown in, and the boiling is continued. Towards the close senna leaves, liquorice, anise and fennel seeds are added. In the weaker decoction the residue of the stronger is again boiled with sarsaparilla, powdered lemon peel, cinnamon and cardamoms. Of this composition the patient swallows two quarts daily.

Some years ago I set to work to investigate seriously the properties, not only of the decoction but of its various constituents; I also examined its mode of administration, and have found ample reason to believe that there is in both much superfluity, which may be retrenched with great advantage.

The first step taken was little by little to cut down the enormous bulk of the decoctions. This was accordingly reduced from two quarts to a pint, and, where the patient objected to this quantity, even to half a pint. If, however, bulk be a matter of perfect indifference to the patient, I don't know that any great advantage is gained by the latter reduction. I have every ground for assuming, that the efficacy of the medicine is in no way im-

paired by the contraction to a pint. No doubt the medicine acts better when well diluted, but the patient can easily effect this, after taking it, by drinking a sufficient quantity of any mild fluid, such as weak tea, chicken broth, veal broth, &c. He will find this decidedly more pleasant than swallowing the same bulk of warm decoction.

The next step was to see if there was really any valid ground for retaining such an expensive ingredient as sarsaparilla. Here, perhaps, I brought some prejudice to bear on the subject. I had previously given this drug in several forms; the decoction warm and cold, the extract and the double strong concentrated decoction; in moderate and very large doses, and never saw it exert any action over the disease. Consequently I was not prepared to find it of much value in the decoction, and I observed no difference from omitting it. I am, however, well aware that many good surgeons have come to a different conclusion. Sir Benjamin Brodie considered sarsaparilla of value in ulcers and eruptions occurring in ill-managed syphilitic cases, in pains of the limbs and in chronic periostitis.[1] Here, I believe, he expresses a pretty common conviction, and one which I have no intention of assailing, but which in no way affects what I have said as to the anti-syphilitic power of this remedy, especially in the decoction.

The sugar, alum, antimony and mercury may be safely despatched on the same road as the sarsaparilla. The first in no way adds to either the flavour or efficacy of the medicine. The second seems to me quite inert; after withdrawing it I resumed the use of it without being able to notice any effect whatever from doing so. The antimony is clearly superfluous; the baths supply in a much better form any diaphoretic action it might possess, and if it conduce to nausea this is undesirable in the highest degree. The mercury is either inert, or possibly to some slight extent converted into a perchloride,[2] and of the latter the patient is supposed to have taken quite enough. All the carminatives, except the one which the surgeon happens to think the best, may be disposed of in the same way as the sarsaparilla.

[1] *Works*, Vol. III., p. 671.

[2] This at any rate is the opinion of Dr. E. Davey. McDonnell; *Op. cit.*, p. 118.

An ingredient of this nature being however necessary, that which is retained should be used in increased quantity, or what is perhaps better, a corresponding quantity of compound tincture of cardamoms should be added to the decoction when made. The liquorice I propose to retain, provided the patient does not object to the taste of it, for then it is better done away with. The extract, however, or stick liquorice of the shops, broken sufficiently small to ensure thorough solution and diffusion, may be conveniently substituted for the root.

The senna seems to be the really active ingredient, and I have therefore not only continued it but increased the quantity. At one time I treated these cases freely with black draught, and while sometimes successful, I yet often failed quite unaccountably, while the patients continually complained of the severe griping and scalding at the anus thus induced. It was long before my suspicions fell upon the sulphate, but at last I made out that the irritating action of this salt was at the bottom of the mischief, and that senna in a proper form may be largely given without causing any distress. The quantity, therefore, in the formula submitted for the reader's consideration is not to be looked on as fixed and arbitrary; on the contrary, it must, if necessary, be raised, as the first condition of success is to secure from three to six or seven loose stools daily during the time that the medicine is taken. If the patient be very fastidious, the senna may be stewed with prunes, and then added to the decoction; in this case the liquorice is dispensed with. It adds to the trouble if made up at home, and to the expense if made up by a chemist, but I think the flavour is decidedly improved.

While thus eliminating all that seemed to me superfluous, I had, little by little, tried to increase the efficacy of the medicine by introducing the active ingredients of the old decoction of the woods, and after many trials are quite disposed to think that they are of material assistance.

The formula which follows [1] represents what seems to me the

[1] ℞ Sassafras radicis ʒi.
Mezerei corticis ʒvi.
Guaiaci lign. ʒii.
Extr. glycyrrh. ʒii.
Aquæ Oviii. Decoque ad.

best and simplest mode of combining and employing these different ingredients. The quantities of any or all of these may be increased, and the degree of concentration to which the process is carried can be determined by the patients' taste. I have never seen any good reason to push it beyond the limits set down. In summer it is better not to make more than enough for four days consumption. Dr. McDonnell gives[1] a recipe for making the decoction from preparations always kept ready by druggists, so as to avoid the waste of time occasioned by the usual method, and cases continually occur where it might be useful to adopt his recommendation; but I have no personal experience of it, and can therefore say nothing on the subject worth the reader's attention.

The patient takes half a pint of the decoction every morning, if possible before breakfast, till the whole is consumed. Usually this proves sufficient to act freely on the bowels. Should it not, its operation can be supplemented by a pill occasionaly at bed-time. It is perhaps not easy to improve upon the calomel and jalap pill originally recommended with the Zittmann treatment; but if this be thought too violent, one of those ordered below[2] can be substituted. Whatever selection can be made, the principle of securing several loose stools every day should always be kept in sight. Looking back now, I think I may safely say that, comparatively speaking, I never had any success, and could never count with any certainty upon the result till I tried purgatives.

The operation of the medicines should be aided by a free use of mild diluents. At breakfast, for instance, two or three cups

Oiv; sub fine coctionis admisce,
Folior. sennæ ʒii. (ʒiii.)
Cola, el adde, Tinct. cardam. c. ʒi. (ʒiss.) ℳ

[1] *Op. cit.*, p. 114.

[2] ℞ Extracti rhei,
— jalapæ,
— hyoscyam,
Saponis hispan. aa gr. xv.; ℳ ft. pil xii.
Sumat i vel ij pro re natâ horâ decubitus.

℞ Podophylli resinæ gr. i. (iss.)
Extr. lactucæ ϑi.
Pil. cambogiæ ʒss ℳ ft. pil. xii.
ut supra sumend.

of hot tea generally act beneficially, and indeed the whole diet may very well consist of nutritious slops; but I do not find that starvation is in any way called for; indeed, I believe it to be a failure and a mistake. Neither is it requisite to keep the patient in the house, still less in bed, anything necessary in the way of perspiration having already been effected. The solemnity of taking one half the decoction warm, and the other half cold, which strikes me as rather akin to the preparation deemed necessary for going through some astrological performance in a fitting manner, may be safely omitted. Should the patient feel low during any part of the course, half a bottle a day of light red wine, such as carlowitz, burgundy, or sound claret, may be allowed. I never saw any patient the worse for taking this. Port and sherry should never be allowed, both being adulterated with bad brandy to an extent which makes them pernicious. Violent exercise, late hours, and undue exposure to cold, raw weather should be avoided as sedulously as during any part of the mercurial course.

Although those not practically acquainted with the working of this system would very naturally imagine that great prostration must follow such a vigorous mode of treatment, yet I have not observed this to be the case except in two or three instances, and then to a very slight extent. On the other hand, most of the patients have assured me that their health had improved under the discipline; some of them have stated that they were never better in their lives, and a few have certainly made flesh. When there is any feeling of ill-health, the mineral acids may be given for two or three weeks. There is another class of cases, and so far as I know only one other class, in which these remedies are useful here. It sometimes happens that before we see the patient ulceration of the throat, mouth or lips has set in; if these complications linger after the decoction has been given up, the acids may often be prescribed with the best effects.

What I have now to say will most likely awaken surprize, and not improbably censure. It is that at the end of three months the patient should go through another course of the treatment, but only a short one, and that the same thing should be done at the lapse of six months after this; indeed, there can be no harm in repeating it at the expiration of another six months. I do not

say that all this is requisite, especially the last course, unless indeed there be a relapse, which is not impossible, though I have not observed such a fact; on the contrary, I have seen cases where the disease seemed to be thoroughly extinguished after the second course and even after the first. But syphilis is such a dire and deep-rooted malady, that I consider it infinitely better to err on the side of extreme caution, and rather to subject the majority of patients to unnecessary discipline, than to run any risk of failure in the few, and I think that every person about to marry ought to go through the full course. No harm can arise from doing so, at least I never observed any, though I have been putting the system in force for some years, and have employed it as many as four times in the case of very delicate-looking persons. The subsequent courses are, however, nothing like so severe an ordeal as the first, being generally limited to four or five weeks of the iodides, during which half a dozen to a dozen baths are taken, and four days of the purgatives.

So far as I know every case treated in this way has done well, and there have been no relapses. Two patients, after the three-fold course, had some amount of sore throat; in both cases this yielded to the internal use of an acid and bitter. Of most of the others I know that so far they have remained well, and as I have never begun the treatment without first of all satisfying myself, to the best of my ability, that the patient was likely to do it justice and report himself if not cured, I may assume that to some extent silence means success. So far the cases may appear picked, but in no other sense; I have not hesitated to employ this method under very inauspicious circumstances. Among other instances I may mention that of a haggard, very delicate, young married woman of delicate family, who had always been thin, and of very feeble bony and muscular developement. She had severe tubercular and pustular secondary disease, accompanied by extensive ulceration of the back part of the fauces. Another young married woman of very delicate frame, steadily losing flesh and strength, had already lost two sisters from phthisis and so on. Now to take only these two, I believe, that to have given either of them mercury in any ordinary way would have been to devote them to years of suffering, and perhaps lasting disfigurement or even death itself. Yet they both not only

recovered but gained flesh, especially the first one. Both these patients said they were better after the close of the treatment than they were before contracting the disease.

I am sorry the treatment is so complicated, but I know of no means by which it can be simplified without impairing its efficacy. I have tried most of the component parts separately, and several combinations of them; the iodide singly and with the perchloride; both these with and without the calomel fume; all these with and without the vapour bath; the Zittmann treatment alone and with each of these remedies, and finally, as the reader has seen, the component parts of the decoction itself. After full deliberation I do not scruple to affirm, that I look upon the complete treatment as far superior to any one of them.

Possibly the objection will be raised that relapses may yet occur, and that time has not lent its sanction to the method. To this the rejoinder must be, that I do not bring it forward as an infallible antidote to relapses, but as generally guarding against them more effectually than any system that I have seen employed. I at once admit that sufficient time has not elapsed to test its powers properly in this respect, for some of the most important additions to it were made during the years 1873-4. But after all it is beyond dispute that under the ordinary systems of treatment there would, before this, have been, at any rate some, relapses; the whole system is only an expansion, though with much alteration, of the treatment recommended by myself many years ago, and it has been tried in a large number of cases. It is now time to consider the management of certain complications due to treatment, and some particular conditions and symptoms, which may call for special means.

Treatment of Erythema and Eczema.—The reader is not likely to encounter these complications unless the patient has been taking the calomel bath at too great a heat, and with too little admixture of watery vapour, or has been rubbing in; but should they make their appearance, the free use of benzoated zinc ointment generally suffices to remove them.

Constitutional Eczema as a Complication.—Here I believe the proper plan is to attack the eczema first, and till it is subdued, to prescribe merely local means for the syphilis. In the absence

of direct proof that it was quite safe to do so, I should hesitate to order a thorough course of mercury externally for a person labouring under a bad eczematous affection, because the power of the drug, thus used, to evoke this disorder, even in persons not previously subject to it, is incontestable, and also because I have seen eczema, when once set up by mercurial vapour, last for months, linger, and then break out again, after the syphilis itself had disappeared. I have, however, only twice seen it in a severe form in patients about to begin the treatment for syphilis, both times in women. The elder one, a married woman about five and twenty, was ordered large doses of nitric acid and bitters; she recovered quickly and was treated successfully for the syphilis. The second, a girl not quite nineteen, was in a deplorable condition, both complaints being so bad that it was difficult to say which was the worst so far as appearances went, the hair of her head being all matted with the discharge, which was exuding freely from the scalp. The free use, however, of the tincture of sesquichloride of iron, conjoined with benzoated zinc ointment, and after that, dilute nitrate of mercury ointment, so speedily improved matters, that in a fortnight I thought myself justified in beginning with the treatment of the syphilis. There did not seem to be the slightest necessary connexion between the two disorders in either case, nor did the syphilis in either case appear to be aggravated by the short delay and the use of tonics.

Salivation.—I have never seen ptyalism ensue under this system, and therefore do not propose to dwell upon it. Possibly it might show itself, and certainly we sometimes do not see the patient till it has set in. Immediate recourse to as much fresh air as can be procured, aromatic sulphuric acid internally in full doses, and astringent gargles of myrrh and alum, seem to be among the best remedies. Large doses of chlorate of potass seem to have proved useful in some cases. I give below [1] a formula which the reader can employ; or he may substitute the chlorate of potass lozenges to the extent of fifteen or twenty

[1] ℞ Potassæ chloratis ʒ ss ad ʒ i.
Acid. hydrochlorici dilut. ʒ i.
Syrupi rosæ ʒ iv.
Aquæ bullient. ad. ℥vi; ♏
Capiat cochlear. amp. duo ter quotidie.

daily. Sir Thomas Watson recommends[1] eight or ten leeches beneath the edge of the lower jaw, to be followed by a hot poultice, smearing the gums with pure tannin, and gargling with honey and water.

According to M. Robert[2] Ricord treats these cases in the following energetic way. Every morning the patient takes four grammes of flour of sulphur mixed with thirty grammes of honey, and a litre of nitric lemonade as a drink; the ulcerations are touched with hydrochloric acid, the cauterization being carried to the extent of causing an oozing of blood. Three or four times daily a gargle of hydrochloric acid and honey of roses is used. According to the same author M. Fournier has stated, in the "Union Medicale," that in the event of stomatitis coming on it is not in any way necessary to suspend the mercury, the concomitant use of the neutral carbonate of ammonia (sel Berthollet) sufficing for the removal of all disagreeable symptoms from the mercury, with the curative action of which the salt does not interfere.

Eruptions on the Face.—I am not aware that anything can be done locally which really hastens the removal of the unsightly look caused by papulæ on the face, but as most persons are very anxious to have such disagreeable evidence of their malady done away with, the following treatment may be tried. I have frequently used it, and sometimes thought that it did good, and if it serve no other useful purpose it will, at any rate, help to tranquilize the patients' mind and furnish him with harmless occupation. The spots are well rubbed at night with ammoniated mercury ointment, or calomel ointment, a drachm of calomel to seven of lard; this is washed off in the morning with St. John's Hospital soap and hot water, after which the spots are well bathed with a bismuth lotion.[3] The effect of the mercury in this ointment seems to be purely local. For tubercles of the face Mr. Coulson recommends the use of pernitrate of mercury. The

[1] *Principles and Practice of Physic*, 1857, Vol. I., p. 244.

[2] *Op. cit.*, p. 716.

[3] ℞ Bismuth. subnitratis ʒ ss.
Glycerinæ ʒ iii.
Aquæ sambuci ad ℥vi; ♏ ft. lotio.
The quantity of bismuth may be increased at discretion.

same author tells us [1] that for the removal of stains he has found nothing so efficacious as the sulphur bath.

When papules on the skin crack and ulcerate or suppurate, a condition sometimes causing much distress, Mr. Berkeley Hill finds [2] that the annoyance is soothed by using the red oxide of mercury ointment of the pharmacopœia, pitch or zinc ointment, or one of hydrocyanic acid. M. Robert for dry papulæ strongly recommends [3] ointment of the proto-iodide of mercury, four grammes of the salt to fifty of lard; baths of corrosive sublimate, ten to fifty grammes of the per-chloride being dissolved in a hundred and twenty grammes of alkohol, and added to the water of a bath; and tar pomade, four grammes of purified tar to thirty of lard. He speaks of the efficacy of these means as incontestable.

When tubercles of the skin or mucous membranes are complicated with inflammation they may, according to M. Robert, require "antiphlogistics, emollients, sedatives and narcotics;" if indolent they can be resolved by the aid of proto-iodide of mercury suspended in honey, ten grammes of the salt to a hundred and twenty of honey. After their suppurative solution they are dressed with a lotion of iodide of potassium, tincture of iodine and distilled water.

Pain.—Attacking the shoulder, scalp, &c., may call for blistering, belladonna linniment, &c. In a paper read before the New York Dermatological Society [4] Dr. Taylor highly eulogizes the rapid relief given, when this symptom is present as also in roseola, by hypodermic injections. An eighth of a grain of corrosive sublimate, injected at mid day, will often procure sleep when morphia fails. These injections are also useful in iritis, but they seem to do little good in condylomata. Relapses, however, occur, perhaps as often as when mercury is taken by the mouth. The solution should be freshly made.

Alopecia.—Patients naturally enough do not like to see their hair falling off, and it is therefore quite a legitimate task to try and quiet their fears on this score. Little, however, can be done for the alopecia till the parent disease is beginning to yield,

[1] *Op. cit.*, p. 234. [2] *Op. cit.*, p. 313. [3] *Op. cit.*, p. 730.
[4] Published in the *New York Medical Gazette*, Vol. VI. (1871), p. 326.

when the alopecia ceases of itself. Still every attempt, even though superfluous or useless, should be made to save the hair. I have, when proper precautions were taken, seen the hair grow well even after a good deal had fallen, and I have known it remain weak where this precaution was neglected. The hair should be cut as short as is convenient, and a stimulating lotion just strong enough to set up some irritation [1] is rubbed in every day. Should anything in the shape of pomade be considered necessary, cantharidin, combined, in the proportion of one to a hundred and twenty, with bear's grease or the compound of almond oil and lime water known as glycerine and cream, may be used. Well marked tinea areata, supervening on syphilis, of which I have only seen one case, is much more obstinate. I generally employ for this affection glacial acetic acid saturated with powdered spanish fly, and used it in the case spoken of, but so far the result has not been satisfactory.

Syphilitic Onychia.—Steeping the nails in very hot water may be beneficial, but demands an amount of perseverance for which patients are not at all prepared. It should be continued for from half an hour to an hour at a time, and the part should be subsequently wrapped up in a wet rag, over which wetted oiled silk is lightly tied. The ulceration may be touched with strong nitric acid, or acid nitrate of mercury, only a very small part being done at a time, after which the finger is plunged in cold water till the smarting has lessened, when the acid is again applied and so on. Mr. Lee recommends [2] rasping the nail quite thin, rubbing it with nitrate of silver and constant application of a nitrate lotion. If this do not effect the desired purpose, the nail must be enucleated. Local calomel fumigation is useful. For ulcerations seated between the toes, the chief means are to avert pressure, and to dress the parts daily with a moderately strong sulphate of copper lotion. Dr. Morgan recommends [3] for fissures in the palms of the hands and folds of

[1] ℞ Spiritus armoraciæ
— rosmarini
Tinct. cantharid. aa ℥ss.
Aquæ rosæ ℥ivss. ℳ ft. lotio.

[2] *Op. cit.*, p. 305.

[3] *Op. cit.*, p. 286.

the joints friction with the formulæ given below[1] as being very useful.

Iritis.—Should this complication come on while the patient is fairly under the influence of the general treatment already recommended, it will, I believe, be found to require nothing beyond dilatation, and so far as I have seen no remedy effects this more quickly and certainly than solution of atropine. Even while using only the hospital calomel bath and simple aperients I have not feared to leave the iritis to itself, doing nothing but dilate. Since the treatment was more developed, however, I have not had a case in which iritis has begun when the patient had been sufficiently long under the method for his system to feel its effects. If we only see the patient for the first time when the iritis is coming on, it may be advizable to use mercury more quickly for a few days, and I have seen the hydrargyrrum cum crefâ, given twice a day, prove of great service. I do not feel quite sure that such a step is requisite, but as the patient is naturally very anxious about his sight, we may here depart from established rules for this reason if for no other.

But supposing we only see a patient labouring under iritis when he has been using mercury in excess, what is the best thing to do in such a case? Dr. Colles recommends[2] bark in the form of quinine. I feel as much faith in turpentine as in anything, but I see no objection to combining it with quinine. Having seen Mr. Hugh Carmichael's treatment with turpentine[3] successfully adopted in a bad case, I experimented cautiously with the remedy, and believe that even larger doses than he gave are still more efficacious, and that we may confidently go

[1] ℞ Acid. carbolici. ʒi.
Tincturæ Opii, ʒii.
Linimeuti calcis ℥ii. ℿ. or
℞ Camphoræ pulv.
Extract. opii, aa gr. x.
Unguent. hydrarg. nitratis,
Cetacei, aa ʒii.
Adipis præparat. ʒiv. ℿ.
ft. ungnentum.

[2] *Op. cit., p.* 165.

[3] *Observations on the efficacy of Turpentine, &c.*, 1829. He found this remedy, given to the wet nurse, useful in infantile syphilis.

beyond the limits which he imposed upon himself. I have in six cases pushed it far as half an ounce, but in two of them this quantity brought on nausea, and was therefore lowered.

The medicine is used as follows. Two thirds, or three quarters, of a dose of the mixture[1] are taken immediately after the first meal following the patient's visit. At bed time this is increased to a full dose, or even a little more. The next morning, if there be no particular nausea, the full dose may be taken directly after breakfast; if the patient think he cannot manage it then, he had better wait till the middle of the day. The dose is repeated in the evening, and even slightly increased if the remedy do not seem to be gaining ground on the disease. After taking his dose the patient should lie down, and if he feel any great dryness or heat from the medicine, may have a drink of barley water. Should the practitioner think the symptoms demand it, a full dose of good quinine wine may follow the turpentine. So long as the medicine is not bringing on sickness, the dose of it may be raised a little every day. Mr. Carmichael recommends us to meet strangury with flaxseed tea and camphor julep. He mentions having seen this complication occur three times, but none of the patients to whom I gave the medicine ever made any complaint on this score. It is a singular and interesting circumstance, that the turpentine exerts no influence over the papulæ, which so often accompany iritis. The dilatation must be sedulously kept up, and the patient remain in doors; generally there is not much difficulty in enforcing this restriction, as the most reckless persons are apt to get alarmed when they find dimness of sight coming on. For circumorbital, or neuralgic pain of forehead, and head, accompanying iritis, Dr. Morgan recommends[2] a small hypodermic injection of morphia at the temple.

[1] ℞ Spiritus terebinth. ʒvi. ad ʒix.
Mucilag. acaciæ, ℥i. tere et adde
Syrupi aurant.
Spiritus vin gallici, aa ʒiv.
Aquæ cinnam. ad ℥vi. ℿ.
Capiat cochlear. amp. duo bis quotidie.

Yolk of egg may be substituted for the mucilage, or the turpentine may be given as prescribed by Carmichael in almond mixture, double the strength of the London Pharmacopæia.

[2] *Op. cit.* p. 285.

Sore Throat.—Until general treatment has begun to subdue the constitutional affection but little can be done for this symptom; the best directed means are scarcely more than palliative, and I may here remark, that this is almost the only complication which has shown any marked tendency to relapse under the method I have recommended. But although we cannot do much topically in the way of cure, still every attempt should be made to alleviate the patient's sufferings, seeing that if they be severe, any remissness on this head will be certain to produce in his mind an impression that he is either neglected or improperly treated. He should, therefore, be directed to gargle his throat well with hot water, and then with a gargle of nitrate of potass,[1] chlorate of potass,[2] or borate of soda. If the patient will permit it, I prefer the free use of solid nitrate of silver. No doubt it sometimes causes a good deal of pain, but I believe it to be one of the most reliable means at our command, and when I am allowed to do so, apply it unsparingly; my experience being, that if it do augment the patient's sufferings at the time, the increase is only temporary, whereas great distress may ensue from a niggardly use of the salt, or from withholding it altogether. Dr. Morgan speaks favourably of ice allowed to dissolve in the mouth, and, certainly, it affords the patient great relief, but it ought to be used as an addition to the nitrate, not with the view of superseding it. If there be mucous patches on the tonsils, causing deafness, Després recommends[3] nasal injections of chloride of zinc solution.

At times when the tonsils remained large and hard, I have used the caustic soda with success, pressing it every day on one spot till I had formed a small slough. This generally has the effect of causing the swollen part to contract. When phagedæna has come on there is no time to lose. The edges of the slough

[1] ℞ Potassæ nitratis, ʒi.
Tincturæ capsici, m xl. ad ʒi.
Syrupi rhæad. ʒiv.
Aquæ, ad ℥vi. ℿ. ft. gargar.

[2] ℞ Potassæ, chloratis, ℈ii.
Mellis, ʒiv.
Acidi hydrochlor. diluti, ʒiss.
Aquæ bullient. ad ℥vi. ℿ. ft. gargar.

[3] *Op. cit.* p. 482.

can be brushed over with fuming nitric acid, or the subchloride of mercury vapour can be applied, and this is, perhaps, the most reliable means. Simon says [1] that in such cases he has found nothing so useful as calomel in increasing doses. Large quantities of sarsaparilla, such as a quart daily, of decoction with half an ounce of sarsaparilla powder, accompanied by half grain doses of opium, and two grains of peruvian balsam every two hours, proved very successful in the hands of Mathias. [2] He likewise put a seton into the neck, and attributed to it a great share in the fortunate issue. The same author strongly recommends [3] sulphate of zinc gargles, and when ulceration of the nose and palate was progressing rapidly, found large doses of mercury arrest the destruction in a short time. Dr. Colles, for the deep soul ulcer occasionally seen in the pharynx, recommends [4] rubbing the surface with muriate of antimony, by means of a strip of lint passed through the eye of an aneurism needle. When the uvula, tonsils, and back of the pharynx, were all converted into one pultaceous slough, he found nothing so efficacious as small doses of mercury. I must, however, respectfully express a doubt whether any of these methods is calculated to maintain an ascendency over that which I have recommended.

Ulcerations of the Lips, Gums, Cheeks, and Tongue.—These affections may one and all be treated in he same way as sore throat. In the early stages smearing with borax and honey affords a certain amount of relief. I believe they yield more rapidly to the general treatment laid down than to any other. The liquor potassæ permanganatis is recommended as an excellent wash for the mouth. Mr. Coulson says [5] the best local treatment consists in touching the affected parts with solution of perchloride mercury, six grains to eight ounces, with twelve minims of hydrochloric acid. Below [6] is another formula, for this purpose,

[1] *Op. cit.* zw. Th. S. 145.
[2] *Op. cit.* p. 129.
[3] Ibid. p. 235.
[4] *Op. cit.* p. 124.
[5] *Op. cit.* p. 231.
[6] ℞ Hydrarg. perchlor. gr. ii.
Acidi hydrochlor. diluti. m. vi.
Aquæ ℥i. ℳ.

by the same author. For obstinate cracks round the mouth Mr. Berkeley Hill recommends a scruple of calomel to an ounce of lard, as a very useful ointment.

Disease of the Larynx.—Secondary syphilitic ulceration of this organ, severe enough to call for any particular measures, is, according to my experience, rare, for in a great number of cases I have not once seen it. I have already mentioned that Dr. Morell Mackenzie found mucous patches in the larynx twice in fifty-two cases; but either these growths must occasion little inconvenience, or he has met with a peculiar class of cases; for though carefully looking out for signs of mischief in this part, and especially since I heard of this gentleman's researches, I have failed to find them in the secondary period. Should they, however, be met with, I believe we have in local calomel fumigation the best topical application so far devized. When the irritation is caused by ulceration, Mr. Berkeley Hill advizes the use of creasote or iodine inhalation.

Soreness of the Nose.—Dryness, heat, and stiffness of the nostrils, sometimes attended with inability to clear them, are sometimes complained of. Except at a late period these symptoms are usually manageable enough, the general treatment being adequate to their removal, and little, if anything, beyond syringing with warm water being required. But if the surgeon only see the case when ulceration is threatning, there is no time to lose. The nose should be examined, with the speculum, if necessary, and wherever signs of mischief are seen, there the acid nitrate of mercury should be boldly applied. No fear need be entertained of damaging sound structure by using it. So far as I have been able to observe, the acid only destroys what the syphilis would sooner or later have destroyed, and has already injured. After the acid, local calomel fumigation can be employed, and above all the general treatment is to be put in force.

Surgeons are occasionally consulted by patients who have had, or fancy they have had, syphilis, and are dreadfully afraid that it has attacked the nose. Sometimes there is nothing the matter, the whole affair is simply siphillophobia. At other times the patient's sufferings are real, and, in their way, severe enough, the case being one of nascent eczema, simple, or complicated with syphilophobia, marked by extreme soreness of the mucous

membrane, which is, perhaps, cracked at the junction of the ala or columna with the lip; perhaps a little serum exudes, or the part bleeds slightly now and then. In weakly persons with a bad skin, or who have gone through a course of mercury, the affection is sometimes obstinate enough even under the most judicious treatment, but my experience of such persons is that they scarcely ever remain long enough under the hands of one person to give any treatment a fair trial.

Disease of the Ear.—Secondary syphilis in this part requires no particular treatment that I am aware of. Should any local means be thought necessary, glycerine may be dropped into the meatus by means of a camel's hair pencil, and retained by a plug of cotton. Syringing with some weak disinfecting fluid may be requisite, and condylomata may demand the use of some escharotic.

Secondary Disease of the Rectum and Labia.—Most of the affections of these parts are pretty easily dealt with. The treatment of the commonest, condylomata, has already been discussed, and will not require farther notice. Excoriations, often described as great soreness, are usually soon relieved by separating the opposed surfaces, and using an astringent lotion, such as that prescribed at page 7. Some of the more developed forms of excrescence, known by the name of fici, strawberry, coxcomb growths, &c., may demand such measures as excision and subcutaneous injection.[1] I have not so far found anything of the kind necessary. If there be reason to fear secondary ulceration within the rectum, the gut should be examined with a speculum, the opening being very slowly but thoroughly dilated. In the event of such a complication being detected, the acid nitrate of mercury can be applied, and till the stools have become fluid under the operation of medicines for the purpose, an enema of hot water, with a little soap dissolved in it, should be thrown up daily.

Treatment of Secondary Syphilis in Pregnant Women.—Pregnancy need not interfere with the use of the treatment recommended, at least, I never saw a case where harm ensued from doing so I have pushed the system up to within a very short time of confinement, and could not notice anything which led me to

[1] Morgan; *Op. cit.* p. 163, &c.

think the practice objectionable. The medical attendant may possibly feel some nervousness about the Zittmann decoction bringing on abortion or premature labour, and, therefore, as there is a tendency to these, set up by the syphilis, it may be, as a matter of policy, better to wait till after parturition. I need scarcely say that anything wrong or unusual might be set down by the patient or her friends to the operation of the medicines. Sooner or later, however, the disease must be assailed, and if it be thought desirable to wait till after confinement, there should be no waiting after that. It must be remembered that syphilis is far more to be dreaded than any medicines, and that it fearfully multiplies the chances against a woman going her full time. Not very long ago I had under my care a woman who had, owing to this disease, aborted or borne dead children ten times in succession.

Treatment of Syphilis in the Strumous.—If there be, in the therapeutics of syphilis, one fact more unfounded than another, it is the dread, that medicines, really calculated to remove the venereal disease, in any way exasperate scorfula. So far from that, so far from the treatment which I have recommended doing these patients any harm, it decidedly benefits them, and I have, at least twice,[1] endeavoured to show, that while tonics and iodine are either useless or injurious in struma and lupus, the symptoms are generally ameliorated, and sometimes very much so, by a free use of purgatives. As to syphilis being more obstinate in strumous persons, or as to persistence or malignity of syphilis being in any way dependent on latent struma, I see no foundation for the belief. Indeed the mental process by which some writers call this phantom into being, and then from dread of the power with which they have gratuitously endowed it, refuse to attack the syphilis with remedies which they would not hesitate to use in another case, rather resembles that by which the african savage first invests his fetish with an imaginary capacity for mischief, and then falls down in terror before it.

I, therefore, consider that, used as a purgative, mercury may be safely given to a person suffering from scrofula and syphilis, and that, even supposing the medical attendant should dread to

[1] *Journal of Cataneous Medicine*, Vol. IV. p. 13. *Diseases of the Skin*, By the Author, second edition, p. 281.

give the perchloride, he may safely use the other parts of the treatment in moderation, and the decoction freely. Even in tubercular patients, the syphilis is more to be dreaded than the treatment. But I will go still farther, and say, I am not satisfied that, even under the old system, the judicious use of mercury was calculated to do any harm in scorfula and tubercle, an opinion confirmed by such able and experienced men as Dr. Colles [1] and Sir Benjamin Brodie.[2]

Change of Air.—In obstinate syphilis, as in every other persistent disease, the practitioner will at some stage or other be asked whether he does not suggest change of air, and, as the question will very likely be put in relation to tertiary syphilis also, it may as well to deal with it here once for all. When the violence of the disease has been thoroughly subdued by treatment, or in the interval between the separate courses of this, change of air will generally do good, and I do not see how it can ever do mischief; it is rarely if ever absolutely uesessary; the majority of patients, if not all,recovering perfectly well without it. Likewise in the case of those fortunate persons, who are so happily constituted that they can live down syphilis without anything particular being done for it, change is, perhaps, useful, and has always seemed to me harmless. In uncured and relapsing syphilis, *when employed as a substitute for proper treatment*, it is calculated to do nothing but mischief.

Suppose the step should be decided on, the next question is where the patient had better go. Any where, I should say, that suits his taste and pocket; that is likely to offer variety and to call his mental and bodily powers into healthful activity. The patient should be made to understand, that no air possesses the power of ameliorating, still less of curing, obstinate syphilis; and that the disease runs its course quite as surely in the climate he is going to as in that which he is leaving behind him. Good bracing sea air is, perhaps, the best of all, and the patient should sedulously avoid everything in the shape of mineral baths, mineral waters, hydropathic establishments, and, perhaps, most of all, the society of the imbecile people who haunt such places.

[1] *Op. cit.* p. 238.

[2] *Works;* Vol. III., p. 289.

Diet.—I have already given certain directions as to the diet to be observed during the time the patient is actually under treatment. If careful, he will, however, often ask, on leaving his first course, how he is to proceed in the interval. I believe the answer is very simple. So long as any of the symptoms are hanging about him, so long should he observe great moderation, especially in respect to meat. When he feels himself free from the disease, he may eat and drink anything in reason. I would, however, always advise, that, during the intervals of treatment, and for some time after the last course, no indigestible food be taken, and that all malt liquors, brandied wines and coarse, bad spirits should be abstained from.

I am well aware that we encounter anomalies here. Some men throw off syphilis while doing everything that diet can do to make it worse. I have seen syphilitic lepra disappear under a short course of iodide of potassium in a man living freely in the widest sense of the term; eating large quantities of animal food twice or thrice daily, and drinking spirits and pale ale all day long; and years after I have been unable to find out that he had had, or was likely to have, a single symptom of constitutional disease. I have seen the same symptom run the same course, and with a like result, in a man, the great business of whose life seemed to be eating and drinking. In the fifteen hours of the day that he was out of bed, he managed to get through six meals, and to consume as much food and drink as would have lasted many persons a week. All his food, too, was of the richest kind. He used to breakfast on quite half a pound of broiled ham, following this up with eggs, buttered toast, sardines, etc. Yet at eleven o'clock he was ready for a large slice of cake and two or three glasses of wine, which in no way spoiled his appetite for a one o'clock dinner. He made a perfect meal of dessert some two hours later, and similarly of tea and supper. During the time he had syphilis he kept up all this work without intermission, sometimes taking a little grey powder, sometimes forgetting it. He recovered perfectly, and years later on seemed to be quite well, having eaten and drunk his way through a moderate fortune, and reduced himself from a state of fair competence to utter poverty.

I have seen many other cases illustrating this view, but it

would serve no useful purpose to recount them here. Most likely the reader's experience will enable him to fill up the gap. The great question which remains behind all this really is, not what diet will suit this class of patients, for they take the matter out of our hands, but what is best adapted to the great majority of cases, and I think the evidence is in favour of that which I have inculcated. Such exceptional cases as those just quoted can no more form our guide here, than the example of a man who gets drunk every day for twenty or thirty years, can in respect to ordinary life. For the most part men, suffering under syphilis, are worse for high living in any shape, and many of them soon find this out. Now, as I think I may safely say, that out of those most likely to catch syphilis, for one person who lives below par, fifty eat and drink too much, it will be easy to divine in what direction change should proceed. Besides, it is to be remembered, that patients, under the full influence of this disease, often bear very badly any extra strain on the digestion. Men who could previously take a large amount of stimulants with impunity have, when labouring under secondary syphilis, told me that they could not drink even a very moderate quantity without feeling heated and uncomfortable.

Occasionally we meet with cases where we must go a different way to work. In hospital practice, syphilis is often seen in patients who have been systematically underfed, e.g., the wives of the poorer classes of workmen, seamstresses, needlewomen, etc., people who sometimes do not get a meal of meat more than once a week, sometimes not so often, and that of a poor description. Occasionally, in addition to this, the constitution has been impaired by indulgence in spirits, which are sure to be of as bad a quality as the meat. To this must be added the depressing effect of the tainted air in their wretched dwellings. Such a patient displays, perhaps, the lowest form of humanity so far as the power of resisting disease is concerned, and, therefore, requires a proportionate amount of keeping up; but, even here, I believe experience shows that any extra allowance is better given in the shape of soup, broth, fat ham or bacon, cod liver oil, and cheap red wine, such as mastrissa, glenelg, sound claret, etc., than in the form of solid meat and beer.

Smoking.—A patient, fond to excess of his pipe or cigar, will

usually object to giving it up, and will ask the surgeon's advice on this point, not so much with the view of getting a candid opinion, as of fortifying his own. I advize, however, that if he be suffering from any ulceration of the mouth, throat or tongue, his opinion, which will of course be on the side of indulgence, should not be fortified, but, that on the contrary, he should be cautioned not to smoke till he is better. I have repeatedly seen such symptoms kept up by smoking, and improve when it was suspended, and have seen the same patient in a short time relapse badly twice in consequence of beginning again too soon with his cigar. It may be urged that women and non-smokers often suffer severely enough from ulcerations in these parts, and that consequently the smoking can have little to do with the matter. The argument is, no doubt, a strong one, but I do not think it outweighs the facts I have put forward, and some very good practitioners hold the same conviction as myself. When these complications are absent, I have not observed that smoking does syphilitic patients any harm.

Exercize.—Patients often want to know if they may pursue their favourite sports, rowing, cricketing, etc. At the beginning of the treatment I see no objection to a moderate amount of such exercize, and have never yet noticed any harm from it. It is, however, not always so, and I have seen patients so rapidly pulled down by syphilis, even before taking any medicine, that they could not bear fatigue; in such cases the patient cannot too studiously economize his physical powers, and this should also be done if he feel the mercurial fume and decoction telling upon him. As a question of practice, I believe that men who have been previously of active habits, who have hunted, played at cricket, football, etc., navigators, and those who work a good deal in the open air, usually make much better cures than persons of sedentary pursuits, and artizans who often pass a great part of the day in hot, close rooms.

Treatment of Syphilis in Infants.—For long past I have treated these cases with iodide of potassium, a moderate use of salines, and a modification of Brodie's friction. The first may be given in quarter grain doses, dissolved in water slightly sweetened, and cautiously raised to half a grain twice a day. Should the case be a serious one, half a grain of chlorate of potass may be

added; I have thought it did good in some instances. The saline aperient can be given through the medium of the mother's milk. A table spoonful of the mixture perscribed at page 9 is taken once or twice daily, generally, when the infant is highly delicate, once a day will be sufficient to act gently on the bowels; more is not required. Even a moderate amount of diarrhœa will not interfere with the use of the remedy, but of course a good deal must always be left to the discretion of the practitioner. Should the bowels not be relaxed, a grain or so of grey powder may be given twice a week.

Brodie's friction is used in a very mild form, not more than ten or fifteen grains of blue ointment, or from a sixth up to a fourth part of the quantity which he recommended [1] being used; this is diluted with pure lard and renewed every second night. At one time I used larger quantities, but after a good deal of watching and note-taking, I came to the resolution of discarding them; my experience was that they increased the irritation and exhaustion, and I know that other surgeons have come to the same conclusion. This opinion was emphatically enough expressed at a meeting of the Western Medical Society, in the discussion which followed the reading of a paper by myself on the treatment of syphilis. One surgeon, in large practice, went so far as to say that he never saw a single recovery under Brodie's plan unmodified; a startling contrast to the statement by the author of it,[2] that while very few children, to whom mercury is given, recover, he had not seen a single case in which the friction method had failed.

The most scrupulous attention should be paid to cleanliness and the avoidance of irritation. The palpable results of neglect lend only too much sanction to the strange doctrine upheld by the late Dr. Thomas Ballard, that there is no such disease as hereditary syphilis, and that what we call by that name is only a papular eruption caused by dirt, neglect, heating, irritating clothes, etc. I do not say that the mother or nurse should always be washing the child; on the contrary, there must not be too much friction of the skin for any purpose, but there must be extreme cleanliness. The seats of eruption should be kept covered with

[1] *Works;* Vol. III. p. 294.
[2] Ibid. p. 295.

properly made benzoated zinc ointment, and I am sorry to say that often it is not properly made. Over this should be laid clean old linen. The washing should be done by lathering with a shaving brush, only pure soap and hot water being used. Flannel, and especially that dyed scarlet, should not be suffered to touch the skin.

Condylomata in children should be well looked to, especially in respect to cleanliness, which is of the first necessity, and when the constitutional treatment is carefully carried out, often suffices of itself. Should anything further be thought requisite, the growths should be dusted with calomel, daily, and then dressed with benzoated zinc ointment, beyond which I have not thought it necessary to go. It is always desirable to avoid giving these little patients pain, and consequently such applications as chromic acid and nitrate of silver are better left out. While on this part of the subject I may observe, that for the sake of brevity and avoidance of repetition, I have not considered it proper in the present chapter to say anything more on the management of condylomata in the adult, having previously stated all I had to say. For similar reasons many symptoms enumerated at the beginning of the chapter are not touched upon afterwards, their treatment being merged in that of the general affection.

At one time I gave iron in these cases, but I never saw any reason to think that it did the least good. In the following case it was, owing to circumstances I could not control, tried by itself, and as the reader will see from the history, exerted no visible influence over the march of the symptoms.

The patient, Carry E. B., a finely made female infant, was brought to me, Jan. 5th, 1875, labouring under syphilis, which the mother, a healthy, comely looking, young married woman from the country, told me had only appeared first on Christmas Day. The eruption was coming out rapidly on the body, especially about the back, and on the scalp, where it looked at first glance almost like so many patches of ringworm, an appearance new to me, but which seems to have been the same form of eruption as that noticed by Dr. Taylor, who says,[1] speaking of a child brought to him, that the flat papular syphilide

[1] *Syphilitic Lesions, &c.;* p. 32.

on its trunk and forearms, showed a decided tendency to form circles and segments of circles, a feature he had never till then observed. The child had only recently begun to lose flesh, and still showed evidence of an originally strong, healthy make. I could not detect any ulceration of the mouth, but the lips were dry, cracked and rigid. The child had the usual hoarse distressing cry of syphilis. The mother seemed so utterly incredulous as to the danger which threatened the child, and the necessity for attending immediately to the complaint, that I thought it useless to begin any curative treatment, which, indeed, she did not seem at all inclined to carry out; I therefore confined myself to ordering a grain of saccharated carbonate of iron twice a day, and Liebig's food for infants, in addition to the breast milk, directing the mother to call again in three days.

She called, but not at the hour appointed, and I did not see her. The next time her visit fell due I was absent from the hospital, and, consequently, I did not see her this time also. The surgeon in attendance, however, continued the treatment. On the 19th. the mother, now thoroughly alarmed, brought the child, evidently in a dying state. The papulæ had to a great extent faded away, their disappearance being, perhaps, hastened by a free use of zinc ointment, but the child now refused all sustenance. I ordered it chlorate of potass and iodide of potassium with plenty of brandy. On its reaching home convulsions began and carried it off next morning, there never having been, so far as I could make out, the least improvement in the symptoms from the very beginning.

Dr. Taylor relates [1] a somewhat confirmatory case, which is all the more valuable as coming from an author who does not espouse either side in a partizan spirit. A child had been treated, as nearly as he could make out, with quinine, iron and cod liver oil, being supposed to be labouring under rickets, though really syphilitic. It seemed also to have been well nursed, yet at the time Dr. Taylor saw it there was a node nearly three quarters of an inch in all diameters on the right side of the frontal bone, one on the left side of this bone half an inch in diameter, enlargement of the bones of the forearms, a cracked and thickened state of the mucous membrane on the inner side of the

[1] *Syphilitic Lesions;* p. 18.

left labial commissure, and a slight opacity of the left cornea. This state of matters, which I think no one could speak of as a gratifying result, so entirely yielded to a mixed treatment of bichloride of mercury and iodide of potassium, that a few months after the nodes had disappeared, scarcely a trace of the disease remained on the radius and ulna, and the child's condition was good.

Again, there is another case in the same work [1] which is well worth noting. The patient was a girl eight years old, suffering from nocturnal pains and bone lesions, due to acquired syphilis. Here Dr. Taylor at first employed iodide of potassium, in increasing doses, combined with iron and quinine. Now, though these remedies relieved the pain, they failed to act on the swellings of the bones; yet the mixed treatment had, at the end of two months when he reports the case, produced an effect on these lesions, which he speaks of as very gratifying.

Mr. Berkeley Hill, in infantile syphilis, gives grain doses of compound ipecacuanha powder when there is any diarrhœa or colic, and says,[2] that on the Continent corrosive sublimate is prescribed to the extent of a twentieth to an eighth of a grain three times a day. I at once confess that I should hesitate about ordering such quantities of powerful medicines for an infant. Exhaustion is generally close at hand, or has actually begun, by the time that we see the case, and an eighth of a grain of the perchloride three times a day will sometimes disagree with a grown person. Mr. Hill is known to be an excellent surgeon, and as he clearly seems to recommend the Dover's powder on the authority of his own experience, and without any reservation, I presume he has used it to this extent, and therefore that others might safely do so. Looking however to the potent influence exerted by opium on weakly infants, I fancy some of his readers must think these doses rather heroic.

Dr. Taylor, who is very justly looked up to as an authority, does not consider the bone lesions of syphilis in children as tertiary, and employs for them a mixed treatment of mercury and potassium, one grain of the bichloride to four drachms of the iodide, dissolved in two ounces of syrup of orange peel and

[1] Ibid, p. 163.

[2] *Op. cit.*, p 326.

the same quantity of water. The dose of this mixture, is for a child about two months old, five drops three times a day; this amount may be cautiously increased to twenty drops. Hypodermic injections have not answered so well in his hands as to justify him in recommending them. Locally, in case of ulceration, he touches the part with strong solution of carbolic acid, and fills the cavity with charpie, saturated with the same fluid; but where he sums up his rules of treatment, says he has found nothing so useful as the application of iodoform, with a covering of balsam of Peru ointment. In case of separation of the epiphyses, immobility must be secured by means of splints, etc. Nodes on the scalp, in an uncomplicated condition, require little or nothing in the shape of local treatment beyond daily frictions with mercurial ointment. If, in hot weather, gastro-intestinal symptoms set in, hydrargyrum c. cretâ may be given and the iodide dose continued. He draws no overstrained picture of his success, but the result seems to have been evidently enough very satisfactory.

Diet of Syphilitic Children.—One of the first elements of success in the treatment of these cases is proper food. If the mother has a good breast of milk, I see no harm in her suckling the child, even when she is syphilitic. The infants so reared seem to do as well as those under other management; better I think than on artificial food, and that is, practically, our only alternative. No woman, in whose hands it would be desirable to place an infant, would knowingly subject herself to the risk of suckling such a child, and no right-minded man would allow her to do so if ignorant of the nature of the charge. The mother's milk can be supplemented with Liebig's food for infants, made with really good milk. I always adopt this plan, but there is one precaution to be taken which requires special notice.

The milk to be used in the food should be of unexceptionable quality. This is not a difficult matter to secure in the more frequented and fashionable parts of London, but in the suburbs the milk is usually very much adulterated, even when the highest price is paid. Some time ago I produced specimens from several milkmen, two of them professing to supply large hospitals; all of them, not even excepting the two last, contained a large

admixture of water, so that the hospital authorities must have been easily satisfied. As the law against adulteration has become almost inoperative, owing to the extreme forbearance shown towards offenders, and the remissness of those who ought to put it in force, the only plan is for the practitioner to take the matter into his own hands, and not merely to impress on mothers the necessity for procuring good milk, but to tell them how to get it of good quality, and to recognize it when got, as thousands of persons do not know good milk when they see it.

Stimulants.—When there seems any danger of the child sinking from exhaustion, I never scruple to order it brandy, and that to such an extent as excites astonishment and alarm, for I give an infant a few weeks old quite two tablespoonfuls daily, and even more if I see reason to think the patient can bear it. Mothers, whose ideas of administering such a strong drink to babies, are limited to giving two or three drops, naturally feel rather horrified at such a prescription, but the event soon reassures them. Children, in a state bordering upon fatal exhaustion, bear stimulants of this kind wonderfully well. Due care, however, must be taken to secure good brandy, as a great deal of the stuff that passes current under this name is liquid fire, distilled from grain, and only fit for cleaning purposes or being employed as fuel. Real cognac should be used, and for this a proportionate price must be paid. It should be slightly sweetened and mixed with hot water, an eighth part of the quantity to be taken daily, being given every three hours, and always after food.

When the disease begins early and progresses rapidly, when the leprous patches come out thickly over the head and chin, and the mouth is speedily involved, I believe that, do what we may, three children out of five sink, and I do not feel very sure that it is the treatment which saves the other two. What useful purpose then, it may be said, is served by treatment at all, and why torment, with medicines and frictions, a wretched little being whose days are already numbered, or whose chances of cure are lessened by meddling? The answer is that we cannot stand by and see an infant perish without doing something for its relief; that of those who survive some may possibly owe their recovery to treatment; that if the system cannot save life, it yet certainly ameliorates the condition of those who outlive the

exhaustion, and finally, that if we can do nothing else, we at any rate do our duty.

But if the disease break out later, in a strong child, with a moderate amount of rash, and no great wasting or affection of the mouth, my experience is that it generally gets better so far as the preservation of life is concerned, and very possibly the disease would in many cases die out without anything being done for it. But as in this class of cases the disease fades away rapidly and thoroughly under the treatment mentioned, I should consider it as unjustifiable to withhold remedial means here, as to neglect any cause of mischief, removeable by art, and likely to entail lasting deformity and suffering.

The reader will have gathered from all this, that my ideas as to the statistics of mortality in infantile syphilis do not at all agree with those of some other writers, and it is so. To tell us that fifty children out of a hundred die under one system, while only six deaths occurred out of forty eight cases treated in another way, conveys no real information. Unless we know at what date after birth the syphilis first appeared, the extent and character of the eruption, the degree to which the mouth, etc., were involved, such statistics are worse than useless. In themselves I believe them to be honest, and fairly representing the success obtained by the gentlemen who put them forward; but in their operation I consider them delusive.

The worst of any such system of notation is, that if once departures from a rigorous method be admitted, we never know where they may land us. One author, who is very strong at such calculations, would have us believe that he cures every case in grown up persons; whatever syphilis may be in the hands of others he is its master; and as he utterly ignores such contingencies as death of the patient or failure of treatment, when he is speaking of infantile syphilis, we can only assume that the same success attends his labours in this department. Uncharitable persons might surmise that the non-appearance of the patient, when the next visit fell due, must be always put down as a cure in such favourable statistics; and, perhaps, the assumption might not be so very far wrong. The author, referring to his calculations about another disease, openly says, that cases not reported unfavourably in his practice, are to be

considered as cures. Caprice, indisposition on the part of the mother, neglect, or a somewhat unfavourable turn of the symptoms, which weigh in the calculations of others, are not the real causes of absence; it is the improvement that keeps the patient away. Of the convulsions which carry off some of these children, occasionally when on the very eve of recovery, we hear nothing. It will not be necessary for me to point out what must be the legitimate goal of such arguing.

Non-mercurial Treatment of Infantile Syphilis.—The successful results said to have followed the non-mercurial method adopted in these cases by Mr. Allingham, Mr. Dunn and Dr. Drysdale, demand our earnest consideration. According to the statements[1] of these gentlemen the management of infantile syphilis is a very simple affair when no mercury is given; the rate of mortality is much lower, and the time required to cure the disease much shorter under their method than under any mercurial system. In forty eight cases Mr. Allingham had only six deaths.[2] The average duration was only forty six days; the number of relapses known to him being only six, and even these speedily recovering under the same treatment and the symptoms not being severe. On the other hand he found the percentage of deaths under mercurial treatment to be twenty nine.[3]

The treatment in question consists, principally, in giving chlorate of potass and cod-liver oil, sometimes iodide of potassium with tincture of bark; good feeding; flannel next the skin and careful nursing.[4] Dr. Drysdale, however, does not believe much in the chlorate of potass,[5] or in tonics generally, and makes the rather damaging admission,[6] "that if you get a case very early, say of a child of a fortnight or three weeks old, they generally die," which, I suppose really means, that simple treatment is inert and is much the same thing as leaving the case to Nature. M. Després, who is a staunch advocate for simple treatment in every form of syphilis, draws a very unpromising picture of its results in children, for he gives us[7]

[1] *On the Mercurial and Non-Mercurial Treatment of Syphilis*, by William Dunn; 1866; *Report of the Committee, &c.*

[2] Dunn; *Op. cit.* p. 45.

[3] Ibid., p. 46.

[4] *Report;* p. 517.

[5] Ibid., p. 533.

[6] Ibid. loc. cit.

[7] *Op. cit.* p. 505.

to understand, that a period of three years is required to effect a cure under this system.

CHAPTER III.

TREATMENT OF TERTIARY SYPHILIS.

Brief Enumeration of Symptoms of Tertiary Syphilis.—These may be conveniently divided into affections of the skin and cellular tissue; muscles and tendons; mucous membranes; eye, ear and testicle; bones; nerves and internal organs. Here too, the arrangement is one simply of convenience, and may possibly be unscientific enough, but if it suffice to give coherence and form to the rules of treatment, it will serve the purpose for which it is intended. Some authors would probably question the propriety of separating tertiary disease from secondary, but I think the system has its advantages and may very well be retained.

The affections of the skin and cellular tissue consist of rupia, ecthyma, often almost identical with rupia, extremely well described by Bumstead,[1] and papulæ, rare and for the most part belonging rather to a late phase of secondaries; impetigo rodens, which I have seen as late as twenty one years after the primary sore;[2] spreading and deep ulcers, often beginning very insidiously, sometimes only revealing their true nature by refusing to yield under ordinary treatment; frequently eroding large fleshy parts like the calf extensively, gum knots, which

[1] *Op. cit.*, p. 566.

[2] The dates as given to me by the patient are a distinct history of infection, dating from connexion with a french prostitute, November 9th. 1845; appearance of a pimple Nov. 19th.; constitutional symptoms during 1846. The impetigo first appeared July 16th. 1867, and the case was brought to me for consultation Aug. 23rd. of the same year. The patient, a highly intelligent, and, I believe, truthful man, expressly stated, both in his answers to my questions and in a written account which he sent me, that he had no symptoms of the old attack, and no fresh infection, between 1846 and 1867.

may appear on the scrotum, penis, insides of arms, wrists, calves of legs, etc., and a form of pityriasis slowly becoming tubercular, and which I have noted occupying almost the whole of the back between the shoulders, great part of the forhead, about the roots of the hair slowly developing into corona veneris, the initial stage of which, however, belongs to secondary disease.

Those of the muscles and tendons, and their sheaths, are simple permanent contraction, so far observed only, I believe, by M. Robert, and plastic exudations and gum knots on the surface, and into the substance of the muscles, not unfrequently the origin of the extensive ulcerations spoken of in the preceeding paragraph, and wasting, due also to gum knots and exudations.

Among the diseases of mucous membranes we find wide spread ulceration of back part of gullet, the same of hard and soft palate, ending in necrosis ; ulceration of true and false vocal cords, causing great loss of substance, falling of epiglottis, and permanent contraction of wind-pipe, aphonia, etc. ; gum knots in larynx ; ulceration of the alæ and septum of the nose, the former sometimes dating its commencement from the later period of secondary disease, and quite distinct from the ulceration set up by or accompanying necrosis, causing unsightly disfigurement ; fissuring, wasting and deep seated ulceration of the tongue, at times simulating cancer ; ulcerations and sloughing of portions of lips ; deep ulceration of rectum, etc.

Those of the eye are sclerotitis ; amaurosis, which has occurred in my practice as a secondary or solitary tertiary symptom ; of the ear, disease and death of the bones ; in the testicle hardening and enlargement of the organ, accompanied by plastic exudation (sarcocele) ; a more irregular form of hardening, due to presence of gum tubercles in the substance of the gland, sometimes occasioning adhesion to the tunica albuginea, and ulceration of the scrotum with protrusion of the testis through the opening (fungus or hernia of the testicle) of which I have only seen two cases, neither of them attended by much enlargement of the organ.

The diseases of the bones are pains, fixed, augmented by pressure, often said to be aggravated by the heat of the bed,[1] a

[1] Ricord ; *Lettres sur la Syphilis*, p. 397.

fact I am as much inclined to doubt as I am the same statement about the rheumatic pains of the secondary period, seeing that some persons who suffer in this way towards morning are yet free from them in the early part of the night, though quite as hot then as at a later period,[1] and also because I have seen some persons suffer torture from them when up and about in the day time; cephalalgia is one of the most common forms of this pain, may appear as late as seven or eight years after infection,[2] and be severe enough to bring on unconsciousness, or precede extensive necrosis of skull; periostitis, the site of which is usually the bone immediately under the periosteum at the painful spot, but may also attack interior of bone,[3] seen in bones of skull, especially os frontis and occiput, those of cheeks and hard palate, walls of orbit, nasal bones, not unusually accompanied by profuse discharge from nostrils, but rarely by polypoid growths in same cavities,[4] in the ulna, tibia, clavicle, sternum, ribs, carpus and metacarpus, tarsus and metatarsus; nodes, for the most part a mild form of periostitis, may be quite superficial with ill defined outline and inflamed surface, or firm and hard with sharp outline, single or in groups, both forms, nodes and periostitis, leading possibly to abscess and necrosis; finally gummy affections. According to Després,[5] both periostosis and periostitis are wrongly classed with tertiary affections, as they are often enough seen at the eruptive period and even during that of chancre. No doubt that M. Després is right, and that these symptoms cannot be relegated exclusively to the third period, in which, however, they are, according to my experience, decidedly more frequent.

The affections resulting from diseases of the nerves and nervous centres are neuralgia, convulsions, epilepsy and paralysis; also giddiness, staggering, tumbling, in one case under my care perpetual reeling about a centre described by the elbow of the person supporting the patient; sense of numbness and creeping followed by paraplegia, possibly in conjunction with tubercular eruption, but seen also in conjunction with rupia, ecthyma and

[1] See also Simon; *Op. cit.* 3 w Th. S. 161.

[2] Ibid. [3] Lee; *Op. cit.* p. 308.

[4] Simon; *Op. cit.* p. 267. [5] *Op. cit.* p. 255.

lepra;[1] paralysis of particular nerves, that of the facial being the most common, and occurring even during the secondary period, while, according to Coulson,[2] it has been seen so early as the first month, coinciding with roseola; of third nerve, not unfrequent; of fourth and sixth, generally unilateral; of optic nerve inducing amaurosis; of portio mollis, and, judging from symptoms, the gustatory portion of the third division of the fifth, bringing on deafness and loss of taste; paralysis of certain muscles, as motor communis, motor externus, deltoid, etc., and great mental irritability ending in suicidal mania, melancholy, etc.

Lastly we have those extremely rare affections of the internal organs, which are more talked about than seen—tertiary syphilis of the heart; lungs, the latter being a very different disease from the phthisis of which many patients, worn out by syphilis, die; of the liver; spleen; kidneys, etc.

According to M. Diday, the outbreak of tertiary disease may be determined by an irritant such as a blister. I have seen pains in the tibia, apparently due to syphilis contracted fourteen years previously, developed with great violence within two months after the patient had acquired another primary sore. The influence of blows, pinches, pricks and other injuries, in setting up an outbreak of syphilitic ulceration at the part is I think pretty certain at times, notwithstanding M. Ricord's clever arguing on the other side of the question. The power of evoking syphilis in this as well as in the secondary stage, has been claimed for chalybeate and sulphureous waters.[3]

A very interesting form of tertiary disease, occurring in both adults and children, has been described by Dr. Robert Taylor, first in the american "Journal of Syphilography,"[4] and sub-

[1] The microscopic products of this lesion, as given by Professor Winze at the Medical Society, are small homogeneous shining bodies, like spindle cells, clubbed at one end pointed at the other; fatty globules; free fat granules; amylaceous corpuscules; pigment granules, and vessels transformed into pigment streaks, all surrounded by a finely granulated mass, containing a few vessels and here and there a small quantity of fibrous tissue. Coulson; *Op. cit.*, p. 312.

[2] Ibid. p. 289.

[3] Després; *Op. cit.* p. 463.

[4] Vol. II.

sequently in an excellent work on syphilitic bone affections in infants and young persons.[1] It had been previously noticed, but by no one anything like so fully and carefully as by the gentleman just named, who has spared no pains to establish its pathology on a sound basis.

The affection generally attacks the first phalanx and first phalangeal joint of a finger and is characterized by an extraordinary enlargement of the part. It may attack the toes in adults, and in children who are the victims of acquired syphilis; in children who are suffering from hereditary syphilis it is confined to the fingers. Dr. Taylor divides the known cases of the disease into two classes, one in which the subcutaneous connective tissue and fibrous structure of the articulations are involved, and one in which the morbid processes begin in the periosteum and secondarily implicate the joints; the latter may or may not be accompanied by deposit in the subcutaneous connective tissue. He points out, however, that this division is wholly arbitrary, and is only adopted for the sake of clearness in description, the two classes being in fact stages of the lesion and not different varieties of it.

All the recorded cases in which the morbid process began in the subcutaneous connective tissue presented a violaceous colour of the integument, and were tense and resistant to the touch. In this variety there is a copious gummy deposit, both in the connective tissues and in the fibrous structures of the joints, with a much less copious deposit in the phalanges, and in all but one case the disease occurred in the first phalangeal joint. In the second variety the inflamatory action may begin between the perioseum and the bone, being then a specific periostitis, or it may commence in the cancellous tissue around the medulla (osteomyelitis). The thickening of the articular capsule when a phalanx is affected may be, he considers, due to deposit of gummy material. The colour of the skin in this variety ranges from a pink to a decided red.

Treatment of tertiary Syphilis.—I need scarcely say that many writers look upon iodide of potassium as the sheet anchor of treatment. If we are to believe some of them it is as peculiarly

[1] *Syphilitic Lesions of the Osseous System in Infants and Young Children.* 1875.

suited to tertiary as mercury is to secondary disease. All we have to do is to give it in proper doses and in a proper manner, the whole mystery of treatment being taught in a page of print. A cure will follow as a matter of course; failure is out of the question,[1] and the want of success which has followed the use of this remedy in the hands of many excellent practitioners can only be due to their inexperience and ignorance of its true properties. To such causes I must attribute my own inability to cure, permanently, many cases of tertiary syphilis with the iodide, and that perversity of judgement which leads me to affirm, that the same thing is very likely to happen even with those who find it infallible. No doubt, I suppose, this salt does effect a cure in some cases, and often removes or alleviates present symptoms; but I believe it fails quite as often, or more so, and not unfrequently the beneficial effect is so transitory, that we have scarcely removed the most visible signs of mischief before we must begin again.

It may very well be conceded to its advocates, that when it fails, mercury would, in the ordinary way of using it, fail also, and that the iodide is not only useful but safe in cases which would not tolerate the employment of quicksilver. The argument is specious, but it will not bear taking to pieces. It means comparing the action of a remedy employed in a way best calculated to develop its powers, against another used in fetters, in a manner calculated to do no good and much harm, a method against which those who have most successfully employed mercury have over and over again protested. Perhaps the most serious objection, however, against the iodide is still to come; this is that even while we are actually giving it, symptoms worse than those for which it was prescribed will spring up under our very eyes; and the more severe these are, the more we now need the aid of the iodide, the less can we rely upon it. Farther, if it have the power to delay the coming out of these symptoms, it neither prevents them from ultimately appearing, nor does it render them any more tractable when they show themselves.

It is true that when mercury cannot be properly employed, iodide of potassium is the safer remedy for tertiary syphilis; and if we were to judge from the rapid impression it usually

[1] *Journal of Cutaneous Medicine*; Vol. II. p. 236.

makes at first upon the symptoms, it might be considered both the most potent and reliable. But the danger and the mistake lie here in trusting to this first impression. To form any solid and lasting opinion, we must contrast the effects of the iodide in the hands of its advocates, with those of mercury employed by men who know how to use it; and I think the reader will rather feel disposed to conclude, that as regards a radical cure, we have not more to hope from a remedy now so much in vogue, than from one so generally discarded, and that consequently I may ask fair consideration for a method which makes us as independent of the one as the other, looked at, of course, as mere specifics.

This method is simply that already laid down for the treatment of secondary disease. The announcement may create some surprize, but I consider experience justifies me in saying, that with the exception of some few symptoms which will be discussed separately, nothing further is required for tertiary than for secondary affections. Indeed the treatment recommended was first of all restricted to the former, and it was not till I had made use of it for some time in this stage, that I ventured to try it at an earlier period; so that, perhaps, properly speaking, I ought to have begun the second chapter with a disquisition on the management of tertiary syphilis.

Leaving that, however, on one side, I proceed to do what I think I can conscientiously do, and that is to ask for a fair trial of the system at the reader's hands. I recommend it simply as more successful in my own practice than any other; not as faultless or unfailing. On the contrary, I am aware that it is encumbered with great drawbacks, and I know too well what an obstinate and treacherous disease syphilis is; but having cured in this way most of the forms of tertiary disease which men encounter in practice, and cases in which mercury and iodide of potassium had been given till the patient was in despair, and this so far without to my knowledge having had a single relapse, I feel that it is worthy of some confidence.

Among these cases was one in which mercury had, before I saw the patient, been given persistently for months without materially checking the secondary disease from which the patient was suffering. I also had him under my care for months,

during which time he used mercury, both with and without iodide of potassium, nitric acid in large doses, and at one part of the time three quarters of a pint daily of compound sarsaparilla decoction. The disease, which consisted principally of papulæ threatening to become tubercular, and great fissuring and tenderness of the tongue, yielded, so far as the disease of the skin was concerned, but so slowly that I doubted whether the treatment had much to do with the result. I did not try the treatment in its present form, for the simple reason that I was unacquainted with its powers. For years afterwards, except that the tongue, which had not been beneficially affected by the remedies employed, continued in much the same state, the patient showed no signs of syphilis. At length the disease reappeared in the form of two gum tumours and a large sarcocele. He was put at once through the full course, and the disease, which had formerly been so refractory, rapidly and completely disappeared, there being long after no signs of a return.

Treatment of particular Affections.—I have already said, that with a few exceptions, I know of no tertiary symptoms which require anything beyond the means already laid down. Rupial and tubercular ulcerations are usually benefited by local fumigatious with calomel, and, if thought proper, I see no objection to using these in addition to the employment of general vapour; warm dressings, such as tincture of benzoin, or the wax dressing mentioned at page 36 may also be resorted to. Flexible collodion has been recommended when they are very small. Under any circumstances they should, first of all, be thoroughly cleansed. For this purpose they can be irrigated with hot water, or a hot turnip poultice, or white bread poultice sprinkled with chlorine solution, can be applied. Mr. Judd, who was very attentive to points of practice, saw [1] benefit arise from dressing rupial sores with a mixture of yellow wax and spermaceti ointment, two drachms of the latter to three of the former, applied hot. Dr. Mc Donnell says,[2] that rupial sores touched with nitric acid, and afterwards dressed with creasote ointment, heal much faster than those less energetically

[1] *Op. cit.*, p. 358.
[2] *Op. cit.*, p. 100.

treated, and speaks [1] of the effect produced by a large blister, on the hideous lupoid ulcerations of this stage, as almost magical.

According to Mr. Langston Parker,[2] Dr. Gross of Philadelphia found fumigation with bisulphuret of mercury succeed in a case of tertiary syphilis of long standing, "accompanied by an enormous amount of rupial action of the skin," after a great variety of other means had been fruitlessly employed. Dr. Bumstead, speaking, however, more of the secondary stage, says [3] that an excellent way of treating sluggish ulcers of the skin is to sprinkle them with iodine in powder, and then cover them with dry lint kept on by a bandage.

Dr. Morgan cuts into gum knots, and thinks [4] that this proceeding materially shortens their duration. Després also incises and cauterizes them.[5] I have not observed the necessity for this step, and believe they may be safely left to the operation of constitutional treatment. Mr. Coulson, I am glad to see, is of this opinion, as is M. Robert. Abscesses round the rectum are often materially relieved by injecting with some weak disinfectant, such as a very dilute solution of carbolic acid.

Disease of the Tongue.—In most varieties of this troublesome affection, and especially in that white, tender, fissured state, which may follow or accompany secondary affections, or accompany tertiary symptoms, and which, when mercury has been given, will often linger for years without any other symptom of infection showing itself; in tertiary ulcerations of the lips and corners of the mouth and cheeks, which may be seen twenty or five and twenty years after the primary disease, and in some cases of superficial ulceration of the ankle, which I had reason to think due to the same cause, I have found nothing answer so well as the continuous use of saline aperients containing magnesia. The statement will seem strange, but I believe experience will confirm it. In several cases, where mercury had been tried to the limits of endurance, where iodide of potassium had completely failed, and where the most resolute

[1] *Op. cit.*, p. 100. Ibid., p. 101.

[2] *The Modern Treatment of Syphilitic Diseases;* 1871, p. 358.

[3] *Op. cit.*, p. 574. [4] *Op. cit.*, p. 199.

[5] *Op. cit.*, p. 309.

employment of local means had only aggravated the patient's sufferings, this treatment has been so successful, that, in no instance when such an affection was the only spmptom, have I thought it justifiable to advize that the patient should afterwards go through the course recommended for the constitutional disorder.

Among other cases I will venture to quote the following. In the first the patient, a very respectable woman, infected by her husband, had been drenched with mercury, having gone through two long and severe salivations. At the time when I first saw her she had suffered quite ten years from disease of the tongue, which was thinned, fissured and partially stripped of its epithelium She had long been unable to bear the contact of salt, pepper, mustard or any hot fluid with the organ; eating, she said, was a perfect torment to her. I tried several remedies for this poor woman who was most anxious to be cured, including a course of muriate of gold, and different caustics, both liquid and solid, carefully introduced into every fissure of the affected part, causing her often intense pain, which at that time I could only encourage her to suffer, believing it to be inseparable from the use of any local means likely to be beneficial, but none of them proved of the least service. At last she took the salines by accident, for at that time I was not acquainted with their power, and to my great surprize began to improve very quickly, an effect quite new to me. She got, comparatively speaking, well, for although the tongue was never quite restored to its normal state, it ceased to cause her any suffering, and she could eat and drink in comfort. Some years after she brought a patient to me, and I then learned that she had had no relapse; that the tongue, though to look at not thoroughly cured, had never since occasioned her much discomfort; and that if, at any time, the old pain and soreness threatened to return, a few doses of the saline always set her right again.

The second case was that of an Irishman, who said he had suffered for more than twenty years from a painful affection of the tongue, which was badly fissured. In addition to this there was a small glassy looking ulcer at the left side of the tongue near the tip; a larger one under the left side near the frænum; a jagged, irregular ulcer inside the mouth, near the left angle,

which he spoke of as very painful, and a large superficial ulceration on the inside of the lower lip, also on the left side. According to the patient's version, many attempts had been made to cure this state of matters, among others the unsparing use of caustics had been put in force, but to no purpose. Yet the salines gave this man ease very quickly. He left off attending, and the disease returned, but in a much milder form. It was again set right and then again a third time, the patient distinctly saying that the last attack was slighter than the preceeding one. I saw no more of him, but he twice sent word to say that he was virtually well, but wanted to have a week's supply of medicine from the hospital, which was granted.

The third case, that of a woman infected by her husband, had been long under the care of a friend of mine, who had found treatment of the most energetic kind, including a long course of Zittmann decoction, requisite to master the symptoms of syphilis which showed themselves from time to time. At last, however, they yielded, except the affection of the tongue which defied the power of all remedies, remaining deeply fissured, streaked with white, intensely tender and hard. Here too immediate and lasting relief ensued from the use of salines.

Having noted several cases I could easily lengthen this list, but I do not see that any useful purpose would be served by doing so. Two or three conclusive narratives will have as much influence on the reader's mind, always supposing them to have any whatever, as a large number.

In all these cases the saline used was that indicated at page 9. To secure its full action two precautions are requisite. One is that it be given to such an extent as to induce pretty free purging. It does not, however, in any way follow that free action of the bowels is necessary to the cure, or that it in any way assists us towards our object, seeing that when induced by other means, and even by the Zittmann decoction, it often entirely fails to exert any influence of such a nature; the real explanation seems to be, that the disease calls for doses of salines which hardly ever fail to cause free purging. The attention of the reader is therefore simply directed to the symptom in question, on account of its affording a means of judging, whether the medicine is acting on the system in a way which

holds out a fair hope of doing good. The second condition of success is, that the medicine should always be freshly made and that only the best calcined magnesia should be used, as it is less irritating and more efficacious than that ordinarily employed, which has also the disadvantage that it is apt to form a firm, sticky mass at the bottom of the bottle, very difficult to get out.

Ulceration of Glottis and Larynx.—This formidable complication demands all our care. I have never had it spring up while the patient was under my hands, and have only had to prescribe for two cases of it. I should, from what little I have seen of the matter, rather quesion whether any topical means exceeds the inhalation of calomel vapour. Mr. Coulson recommends [1] that iodide of potassium be given freely, and says that Dr. Morrell Mackenzie advizes, as a local application, solid nitrate of silver fused on to the tip of an aluminum wire. Should the latter not be at hand, I would suggest a number two or three flexible bougie, the tip of which can be easily coated by dipping it in the nitrate, fused in a small silver ladle, as recommended long ago by myself for applying the nitrate to the urethra. When a ladle is not procurable, the salt can be melted on any silver coin, held by means of a pair of forcepts in the flame of a spirit lamp; a great heat is not requisite. He also suggests that when a gum knot is ulcerating in these parts, in addition to pushing the iodide rapidly, the spot should be touched with undiluted tincture of iodine.

Dr. Morgan says [2] he has instantly relieved cases of urgent laryngeal inflamation, by scarifying and swabbing the parts with sixty grain solution of nitrate of silver; and by the use of ice, both externally to the laryngeal region, and by letting it dissolve in the pharynx when œdema exists. It is a great pity that Dr. Morgan should sometimes weaken the force of what he says by this exaggerated tone. The practice may be very good, indeed it gives me the impression of being excellent; the question of its affording instant relief is a different matter.

Fungus of the Testicle.—The only two cases of this kind that I have had under my care yielded very quickly to moderate doses of iodide of potassium. In a surprizingly short time the skin began to creep slowly over the protruded testicle, and then the

[1] *Op. cit.*, p. 183. [2] *Op. cit.*, p. 193.

opening closed up, leaving only an indented scar. I could not induce either patient after this to go through a course of curative treatment. I never saw the first of them, in order of time, again, so that I have no means of knowing whether the cure was permanent. The second has just come under my care again with a large tertiary ulceration in the ham, which he has neglected as long as he could. There has been no return of the disease in the testicle. No local treatment was ordered beyond wet lint and suspending the testicle. The cases presented a striking likenesss in their history and symptoms. Neither patient had done anything local or general for the disease before coming to me. Neither of them had in any way attempted to protect the exposed gland, and both of them had gone on with their daily work up to the time of beginning treatment, and did the same thing while under my care.

Nodes.—For the most part I believe these formidable looking things may be very safely left to the sharp and salutary action of the general treatment, whereas I must say, that my experience of them, under both mercury and iodide of potassium has been at times most unsatisfactory, indeed one of the first cases which completely shook my already wavering faith in the iodide was of this nature. The patient, a respectable, comely and, till the time of infection by her worthless husband, extremely healthy woman, had been almost cured by the purgative decoction of an enormous tertiary ulceration extending over the upper part of the calf of the leg, the ham and part of the back of the thigh, when she was compelled by domestic affliction to leave off treatment. As, after this, she was unable to attend regularly, or intermit her work, I could only give her the iodide, which she took for a long time in large quantities, with decoction of sarsaparilla, the iodide of iron in full doses being occasionally added. At the very time when she was, to use a common but rather incorrect expression, saturated with the salt, three large nodes came out in succession on the forehead, increased in size, opened, and after a time slowly healed, leaving great deformity; and though the dose of the iodide was rapidly and continuously raised, this in no way served to check the progress of the nodes.

As a local application, perhaps nothing exceeds blistering, which can hardly be employed too frequently. Of the advantages

attendant upon the french mode of dressing the blistered surface, when the swelling is obstinate, with mercurial ointment and tincture of iodine, I have no experience. Compression by means of a bandage and agaric disks has been highly spoken of. If it be thought advizable to open the formation, it should be done by the smallest possible subcutaneous puncture. I am strongly inclined to doubt if the step be called for, and Dr. Colles deprecated[1] any such procedure. I am equally inclined to challenge the propriety of gouging away the dead bone when necrosis has set in from a node. For a time the wound heals up, the patient leaves the hospital cured to all appearance, and the happy result is set down to the credit of the operation. But there is a different story to tell when the disease re-appears, and the gouging has to be done again and again, the area of operation being sometimes extended far beyond that of the original lesion; and then, after all, we perhaps have to do what we might as well have done at first—treat the case constitutionally and leave the rest to the powers of the system. I never saw a case do well under operation which, judging from all I could make out, would not have done equally well under the other method, except where the dead bone was loose or coming loose, and was manifestly keeping up irritation, when it is better away.

Disease of Bones of Nose.—So soon as ever there is reason to think this nasty complication is even impending, the means already recommended for secondary disease of the organ should be rigorously put in force. I know of nothing better, and can only suggest, in addition, that they shonld be still more unsparingly applied, all half measures being, in my opinion, aimless and unmeaning increase of the patient's sufferings. When there is evidence of bone being actually diseased, a solution of carbolic acid, as strong as it can be borne, should be freely injected or snuffed up several times daily, in order to get rid of the fætor. These steps and the constitutional treatment will I think generally, if not always, give a good account of the affection.

Dr. Morgan has, in some cases of disease of the nasal bones, found great benefit from raising the ala by means of an incision,

[1] *Op. cit.*, p. 187.

and clearing away the unhealthy and broken down osseous tissue. This gentleman's practice, in dactylitis, of giving iodide of potassium with iron and strapping the finger, keeping it on a splint, and painting it with tincture of iodine seems to me sound; but having no experience of the disease my opinion is of no value.

Syphilitic Disease of Internal Organs.—In a work of this kind some notice, however brief, of those complications produced by syphilis which threaten life itself, is necessary. I have elsewhere [1] expressed my opinion as to the very doubtful nature of many of the affections comprized under this head. I do not wish to convey the impression that they are not caused by venereal disease; what I ventured to question was their truly syphilitic nature, the presence of any distinctive marks which expressly separate them from similar diseases set up by any other exhaustive cause. I am well aware that deposits pretty clearly of a tertiary nature have, on some rare occasions, been found in internal organs, but I believe these have never been diagnosed during life, and are therefore useless for our purpose.

All then that, I think can be done here, is to take those cases of internal disease in which there is evidently uncured syphilis present, or else reason to suspect that this taint is at the root of the symptoms we are called upon to treat. In both cases my advice is to leave the internal symptoms as far as possible on one side, and to put the patient through a radical course of treatment aimed solely at the syphilis. For this purpose I can only suggest that which has already been recommended, as I see nothing in the prospect of internal disease which in any respect contra-indicates it.

Generally speaking, however, treatment of this kind does not receive a fair trial. The case falls into the domain of general pathology and becomes the property of the physician. If he were always informed of the true state of the matter, or if the syphilis were always cured before the patient reached his hands, he would be the right person to take charge of the case; but, unfortunately, this is not done.

Of the fatal instances which I have seen, where uncured

[1] In a paper read before the Medical Society of London, and published in the *Edinburgh Medical Journal*, Vol. III., p. 1071.

syphilis was at the bottom of the history, the patients were all women, and the disease was in every case seated in the lungs. In three of these, one of phthisis and two of chronic pneumonia, I opened the body after death. Having, in the paper just mentioned, given the particulars of these cases, it will, perhaps, not be necessary to repeat them. One patient, a lady, on the eve of beginning with the calomel bath, was attacked with symptoms of miliary tubercle, upon which fatal typhoid rapidly supervened. One woman, who had reached the tertiary stage before I saw her, had anasarcous swelling and albuminous urine, subsequent to a course of treatment with iodide of potassium, etc., widely differing, however, from that now recommended; when tested with heat and nitric acid, the urine became almost entirely solid, only a thin film of fluid remaining at the top. She made a good recovery under elaterium, it not being thought advizable to renew the treatment for the syphilis after so recent an experience of it, and some years after was in very fair health, having had no return of either disease.

Mr. Berkeley Hill recommends, as particularly useful when syphilitic disease of the brain is causing epilepsy, bromide of potassium in five grain doses along with iodide of potassium and carbonate of ammonia.

INDEX.

—:o:—

FINIS.

WALLER & BAINES, PRINTERS, 20, WARWICK SQUARE, LONDON, E.C.