

The mercurial disease : An inquiry into the history and nature of the disease, produced in the human constitution by the use of mercury: with observations on its connection with the lues venerea.

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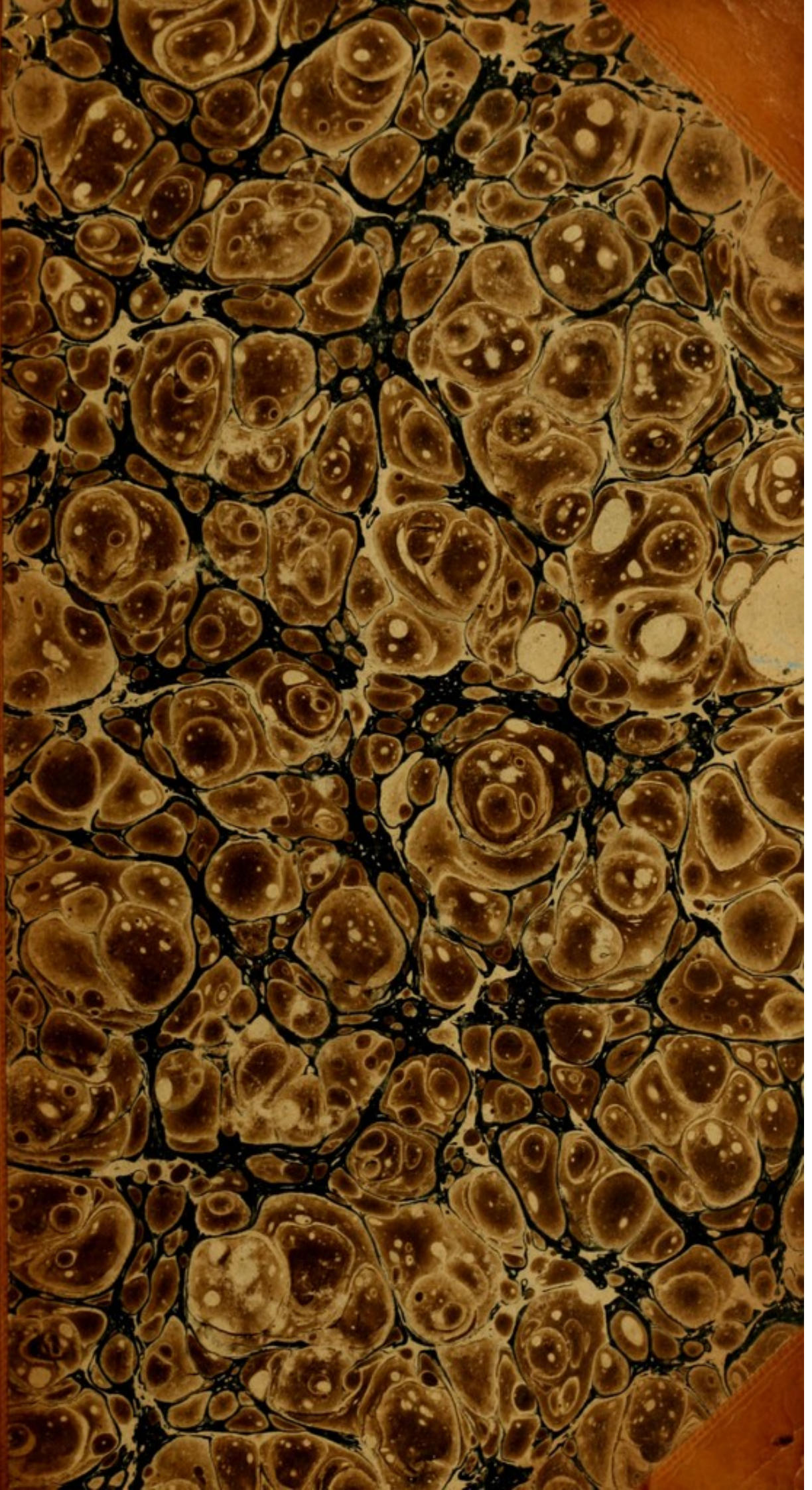
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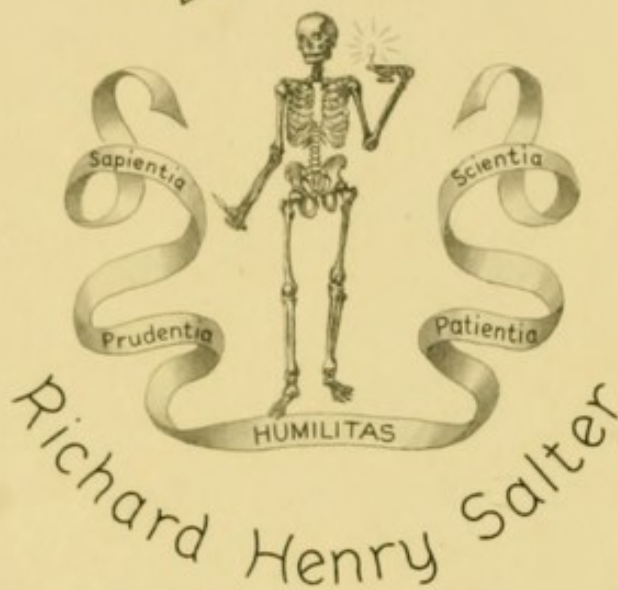
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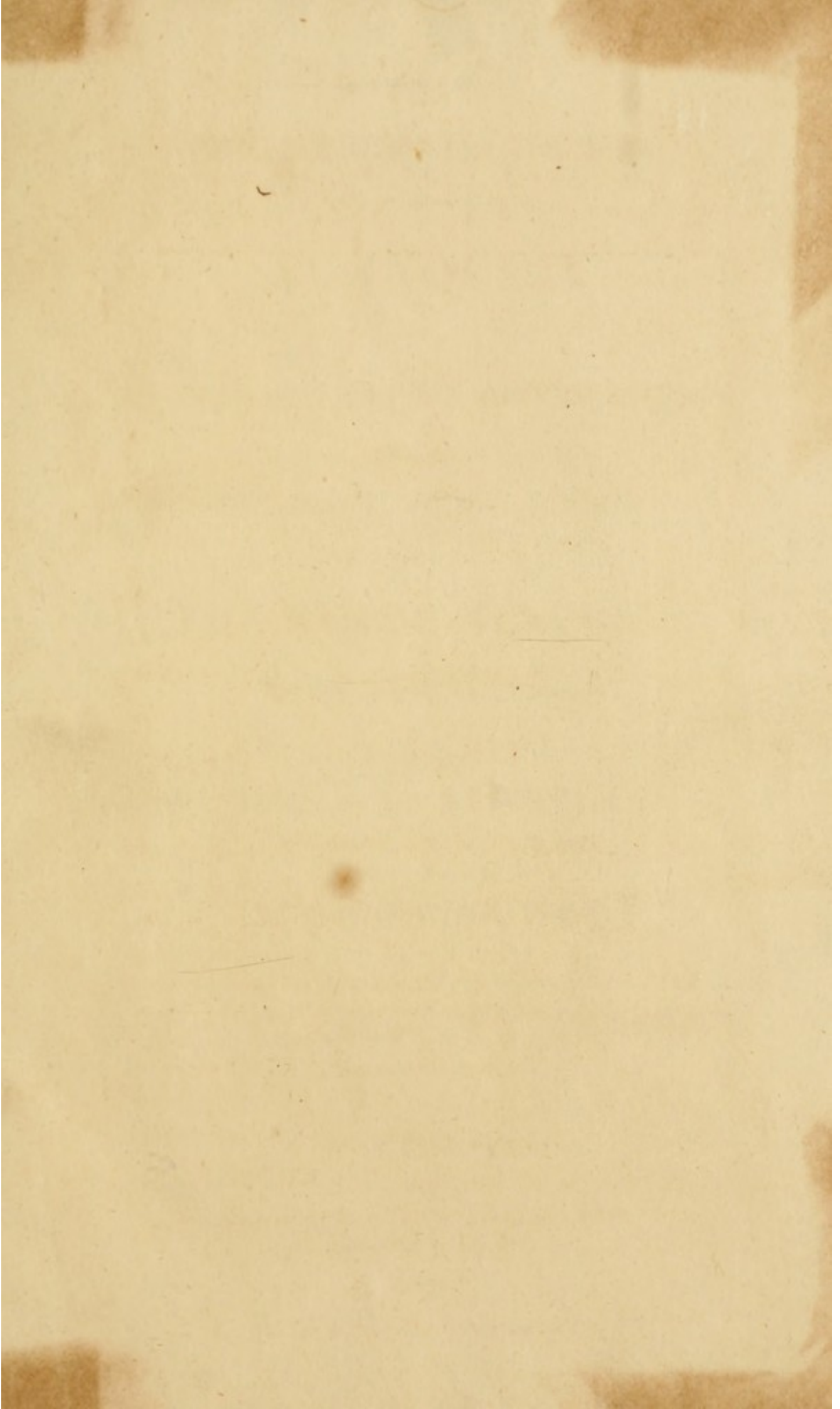
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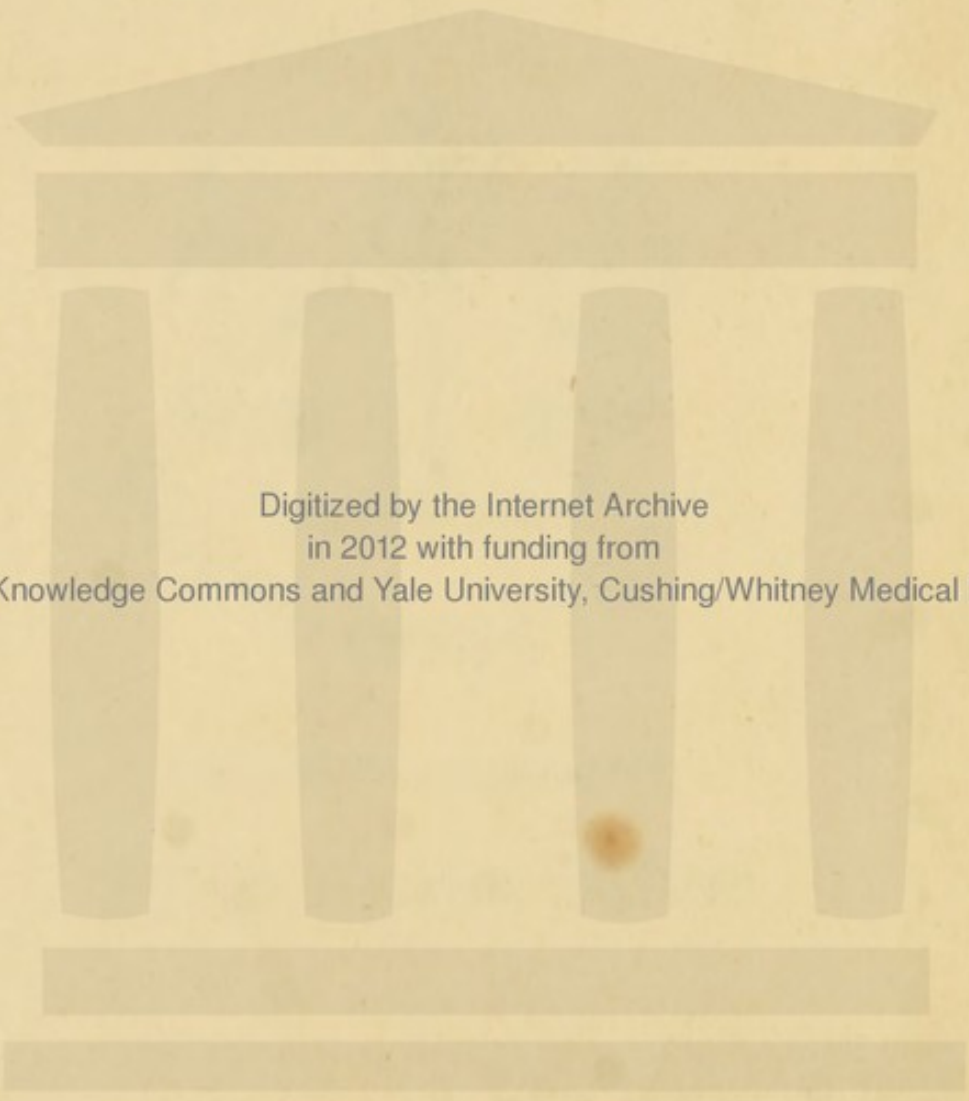


THE GIFT OF HIS DAUGHTER.

Edith Agnes Salter.

PAULSON, BOSTON.





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THE JOURNAL OF THE

AN INQUIRY

RESPECTING THE NATURE OF THE DISEASE

AND THE MODE OF COMMUNICATING IT

THE USE OF MERCURY

IN THE TREATMENT

OF THE DISEASE

BY J. H. W. H. W. H.

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THE HISTORY OF THE

EMPIRE OF GREAT BRITAIN

BY HENRY DE LAET

A HISTORY OF GREAT BRITAIN

BY HENRY DE LAET

IN THREE VOLUMES

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THE (MERCURIAL DISEASE.)

AN INQUIRY

INTO THE

HISTORY AND NATURE OF THE DISEASE,

PRODUCED IN

THE HUMAN CONSTITUTION

BY

THE USE OF MERCURY:

WITH OBSERVATIONS

ON ITS CONNEXION WITH

THE LUES VENEREA.

BY ANDREW (MATHIAS),

SURGEON EXTRAORDINARY TO THE QUEEN, AND TO HER MAJESTY'S HOUSEHOLD, SURGEON TO THE WESTMINSTER LYING-IN-HOSPITAL, AND MEMBER OF THE ROYAL COLLEGE OF SURGEONS OF LONDON.

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THE MERCURIAL DISEASE

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IN the following Inquiry into the History and Nature of the Mercurial Disease, I have thought it proper, and by no means foreign to my subject, to introduce some observations on the supposed anti-venereal powers of other medicines besides Mercury. I have also, upon the same principle, added a short investigation of the present practice in the treatment of the Lues Venerea, in which a less uncertain mode of administering mercury in its mildest forms is recommended, consistent with the facts adverted to in the course of the work. I have endeavoured to place the whole of my subject in the clearest point of view ; and if, contrary to my intention and to my wish, I should in some parts appear to be either too minute or too copious, I hope I may be excused from my earnest desire of treating each specific division of my Inquiry in as plain, full, and perspicuous a manner as it was in my power to do.

ANDREW MATHIAS.

*No 5 Bloomsbury Place,
Bloomsbury Square, London,
March, 1810.*

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INTRODUCTION

Chap. I. The General History of the Mineral

The history of the mineral kingdom is a subject of great importance, and one which has attracted the attention of philosophers and naturalists of all ages. It is a subject which has been treated in various ways, and which has given rise to many different theories. The present work is intended to give a general and accurate account of the mineral kingdom, and to show the progress of its discovery and improvement. It is divided into three parts: the first part contains a general history of the mineral kingdom, and a description of the different kinds of minerals; the second part contains a description of the different kinds of rocks, and the manner in which they are formed; the third part contains a description of the different kinds of fossils, and the manner in which they are preserved. The work is intended to be a complete and accurate account of the mineral kingdom, and to be a valuable resource for all those who are interested in the subject.

INTRODUCTION.

IN the following treatise on the Mercurial Disease, I pretend not to the discovery of a new complaint: and, indeed, the citations which I have made from various writers on the venereal disease, who have thrown out hints and conjectures respecting the morbid mercurial irritation, will clear me from any pretension of this nature.

I believe, however, that I have now for the *first* time given it a separate and regular consideration, establishing its specific and uniform character, for the more effectual prevention of those errors, which the want of decision on this point has so continually occasioned in practice.

How far, indeed, I have succeeded in this attempt, remains to be decided; but I trust that proper allowance will be made for those errors which may unavoidably have escaped me; as I am sensible, that if the facts are clearly stated, and the reasoning is not obscure, a work of this kind will not be without its use.

Although the mercurial irritation is mentioned by various writers, and particularly by the late ingenious Mr. John Hunter, in many parts of his work on the venereal disease, yet it must be allowed that it is still imperfectly understood; and, from a want of

better information respecting it, the disease is often overlooked or mistaken for some other complaint. Indeed, if I do not deceive myself, this is the principal cause of all those errors and unsuccessful cases which perplex our practice in the lues venerea; and, I have very little hesitation in believing, that a better acquaintance with the mercurial complaint must introduce a more improved method of treating the venereal disease. I shall propose to set aside entirely the present practice of using topical mercurials to venereal wounds; and I shall recommend no other preparation of mercury than that of its simple division by trituration in the form of an ointment or of a pill, except in some very particular cases: and this will be proposed, upon the plainest conviction, that topical and saline mercurials are conducive to the disease in question. I am not, however, forgetful of the important improvements which many excellent modern practitioners have introduced in the mode of treating the venereal disease. It was indeed from the hints and scattered remarks which I found in their works that I was first led to investigate, and to observe more attentively, the course and nature of the mercurial complaint.

The mercurial disease however, as we find it described by some modern authors in their works on the lues venerea, (for no regular or detached work on the subject has ever yet been published) is by no means so accurately marked as to give us any true idea of the complaint. To prove this, I need only mention, that it is sometimes described, even by Mr. John Hunter, who, as I believe, had most considered this

matter, as a disease produced from the joint effects of mercury and of the lues venerea; at other times he mentions it as arising from mercury, merely calling forth some latent disease of the constitution into action, as scrophula, cancer, &c.; and again, he describes this very disease, in another part of his work, as arising from the combined effects of mercury, of the venereal virus, and of the constitution. In other writers we find the same fluctuating opinions; nor is there any distinction made between this specific morbid action of mercury and its common stimulating effects; nay, it has very often been supposed to be the lues venerea in a state too inveterate to be removed by mercury. These different conjectures have of course prevented any regular mode of treatment in this complaint; the disease being retarded in each case, as one or other of the ideas just adverted to has been adopted. Mr. Hunter, indeed, in one place, even allows the mercury to be continued during the disease, till the time when the practitioner supposes the venereal virus to be subsided; a practice which, in my opinion, would most effectually prevent its ever being removed.

It has therefore been my endeavour to prove the following particulars; namely:

That mercury, in some instances, ceases to act as a remedy, and produces a specific action in the system, differing entirely from all its other operations, having in itself a power of suppressing, but not of curing, the venereal action: I wish also to evince, *that* this specific morbid action is produced by mercury alone, as it is often brought on in habits free from the venereal action:

That the disease is regular and uniform in its progress and termination, and that it is dissimilar in all respects to every other morbid irritation or poison, except as to its seat, and the appearance of its symptoms at its commencement, in which it bears a strong resemblance to the venereal disease :

That it is never combined with other diseases, nor does mercury with other diseases or constitutional actions produce a variety of complaints ; but *that* when mercury begins to disagree with the constitution, and ceases to act in removing the venereal virus, this disagreement is constantly to be accounted for from this morbid specific action taking place ; which, if the expression may be allowed, I would wish to call *the disease of the remedy*. I have also endeavoured to prove further, *that*, by considering it in this uniform and unchangeable character, we become possessed of a fact, which is of the first importance in the practice of venereal cases ; but while it is considered under all the fluctuating designations which are given to it by most writers who have mentioned it, the discovery of the mercurial disease is of little or no utility.

I have in this work removed from the catalogue of anti-venereals every medicine except mercury ; as I am convinced that in Europe there is no other remedy which has the least effect in subduing the venereal irritation. Yet I have retained the use of many of the old reputed anti-venereals, such as the guaiacum, sarsaparilla, mezereon, &c. both in the venereal and mercurial diseases, as gentle tonics, and, when rightly managed, as active sudorifics.

Some persons may possibly look on this part of the work as unnecessary; but, independent of the opportunity with which it furnished me of illustrating the disease, which is the immediate object of this inquiry, I was convinced that these medicines were not so completely given up in practice as anti-venereals, but that they were still resorted to in most cases of the lues venerea, supposed to be incurable by mercury, under this opinion of their powers; and I appeal to the practice in the hospitals of this country for the truth of the opinion.

In speaking of the treatment of the mercurial disease, I trust I have laid down some rules, which, if they are strictly observed, will considerably shorten the duration of this complaint when it does actually occur.

In recommending the letting of blood in the earlier part of the cure, the supposed weakness of the patient in these cases may, perhaps, at first deter many from following this practice; but, when they have found the rapid and salutary effects which result from it, and how much more efficacious every other medicine, which is afterwards administered, becomes; and how well the patients in these cases bear a loss of blood, and, lastly, when they discover the diseased appearance of the blood itself, I am willing to hope that these fears and prejudices will soon be given up.

I have advised, that every existing cause of irritation should be removed in the cure of this disease; and, when speaking of the treatment of the lues venerea, I have observed, that we have discontinued a

good old practice of preparing our patients for mercury, by removing plethora, or restoring the habit when much reduced; a practice which would greatly tend to prevent mercury occasioning a diseased action.

In recommending sarsaparilla and cicuta* in the mercurial disease, I know that I follow a practice much in use; but I wish the doses of them to be increased, and their exhibition to be preceded by some preparation of the constitution.

I have laid down strong cautions against venturing on mercury too soon a second time after a mercurial attack, though we may be convinced that the case will finally require it. I cannot too earnestly insist upon this point, and recommend it, when I recollect how very often I have observed the mercurial disease fail of being cured, by the practitioner being actually frightened into a renewal of the mercurial course, before the newly formed disease was entirely removed.

As the mercurial disease arises from a remedy employed for the cure of another disease, and, perhaps, commences before that is removed, even in the very seat of it, it may frequently prove a complaint very likely to be overlooked, and not easily to be detected in its first stages. This has induced me to be very particular in pointing out the disease in its commencement, especially as we find the complaint, in medical writers, mentioned only in its latter and most confirmed stages.

* *Cicuta*, in the new London Pharmacopæia of 1809, is named *conium*.

It is indeed a matter of astonishment, that mercury ever cured the lues venerea, employed as it was by our ancestors, and with their erroneous ideas of its operation. Whenever it did succeed, it must have been owing to their practice of preparing the patients for its exhibition, by confining them to a warm room in flannels, and to a strict anti-phlogistic diet; and from the profuse salivations which they so soon excited, which happily prevented them from using the quantities of mercury they proposed, and which they recommended in their writings. That they did not always leave their patients uncured is very certain; but how they ever could have succeeded, unless from the accidental causes just described, I must leave it to others to explain.

If we inspect the earliest class of writers on the venereal disease, we find that their accounts of the use of mercury amply confirm our suspicions of the ill success which attended its exhibition. Some few of them at first used it with moderation, but in general they administered it in excessive quantities, and with little knowledge of its effects: the remedy, therefore, was often more formidable than the disease. We are also informed that the patients, after their courses, were left covered with sores and ulcers more inveterate than those which first affected them; and that, not unfrequently, they suffered dreadful mutilations from organic destruction. Even in more modern times, we find some practitioners who use this mineral in quantities, and upon principles hardly credible. In the surgical works of Richard Wiseman, serjeant-surgeon to king Charles the Second,

when he is speaking of the cure of the lues venerea, we find him directing from twenty to thirty grains of calomel, as a dose daily, to be followed up with a few grains of turbith mineral, “if (to use his own singular words)* after taking it four or five days their chops do not swell:” and this he gives us as *the mildest course* in the slightest cases of infection.

In the works of the very learned Boerhaave, it must surprise us to find this general maxim laid down, namely, “that the fat of the body, even to the last particle, must be drawn off in the cure of the venereal disease, for if even the least particle remains, we must dread a relapse;” and when he is speaking of the manner of conducting a salivation, he says, “that if the patient spits three pints, or two quarts, in the twenty-four hours, it is sufficient,—but that, if he spits less, more mercury must be given.”

In Dr. Astruc’s learned and laborious work on the venereal disease, we find that mention is made of *useful ulcers* in the mouth during salivation;† and he says, that “the ulcers which are produced in the mouth by the force of the mercury are to be differently estimated according to the difference of their situation, for some are of no use, nay dangerous, others are useful and in nowise dangerous. Those are with the utmost diligence to be healed and cicatrized, since they do mischief; on the contrary, these are to be kept open during the whole cure, since the discharge depends upon them.”

* Wiseman’s surgical works on the lues venerea, book vii, page 9.

† Book iv, c. 7, p. 71, English edition, 4to.

I might, with great ease, cite numerous other instances of erroneous ideas which were formerly entertained respecting the effects of mercury, but these are sufficient to evince that the worst consequences must oftentimes have arisen from the prevalence of these ideas; and that we have better ground, than that of a bare suspicion, for imagining that a great part of those numerous cases which we meet with in old authors, and even in many modern ones, of incurable venereal cases, were nothing more than instances of the mercurial disease.

In the work of Mr. Lombard,* who wrote in the year 1790 on the "Maladie Venerienne," (vol. I, p. 223.) the practice in France is stated to be, even at that day, very often to anoint the body all over with the mercurial ointment. This practice must surely be very hazardous, and very likely to produce the mercurial morbid irritation.

The many dreadful instances of what are called obstinate incurable cases of the lues venerea, brought from hot climates, are most of them, in my opinion, mercurial. Some of them I have had under my care, and I have found them curable merely by considering them as truly mercurial, and by never again venturing upon the use of a grain of mercury, but rigidly pursuing the plan laid down for the treatment of the complaint. To effect this, indeed, a considerable length of time is often necessary, the disease in general being in a state of great aggravation from the

* Mr. Lombard's work was published at Strasburgh in the year 1790, in 2 vols.

repeated use of mercurials. I have sometimes seen these cases called cancerous. When they have been considered as venereal, and mercury has still been persisted in, I have generally observed the patients have fallen victims to the treatment.

In the investigation of this disease, I have endeavoured to draw every inference from actual observation of mercurial cases, without resting on theory or hypothesis. If what I have advanced will not stand the ground of actual observation, I know it can be of no use in practice, that is, it can be of no service to mankind.

I trust that, in directing the attention to the morbid effects produced by the remedy of mercury, I shall not be considered as having drawn the practitioner too much from the observance of the venereal virus; as I hope that, in the rules laid down for the use of mercury in the cure of the lues venerea, I have increased, not lessened, the cautions which are necessary to be observed in the progress of this disease. I flatter myself, also, that in so doing, I have diminished the hazard of failing in our mercurial courses, and that I have more clearly pointed out those changes in the lues venerea which are most likely to elude our observation.

In the works of many modern medical writers are found descriptions of various diseases, which resemble the venereal and the mercurial, particularly the sivvens, the yaws, and the disease which sometimes takes place from the transplanting of teeth. But however nearly in appearance the symptoms of these complaints may resemble the two former, they cer-

tainly are essentially different from either of them : first, because all these complaints arise from different causes : secondly, because, if the siverens and the yaws, &c. depended upon a similar action and poison with the lues venerea, we should find that mercury would always remove them. Now it sometimes happens, that mercury will cure them, but in general it will not. Again, if they depended upon a similar morbid irritation with the mercurial disease, mercury would never cure, but would always exasperate them.

Mr. Hunter, in the seventh chapter of his work on the venereal disease, relates many instances of new formed diseases arising from particular morbid irritations. The review of these diseases will teach us that new complaints are occasionally produced, that many of them begin and die where they first arise, from no morbid poison being generated to communicate the complaint, and the disease therefore not being likely to appear again, except from a combination of the same causes. But we ought to be on our guard, not to multiply fancifully these diseases beyond the number which really exist, by establishing every little seeming difference, as a separate disease. If we should do so, we shall (as it has frequently been the case) erroneously describe the mercurial disease under a variety of forms and combinations, and mistake it for other specific morbid actions ; though, as we have before observed, it is strictly a specific complaint depending on one cause, regular in its symptoms and in its progress, and requiring a treatment

not less steady and uniform, than any other well-known disease.

In the course of this work I have made frequent citations from the writings of many excellent authors on the venereal disease ; and I have appealed to them very often, either as authorities for what I have advanced, or to explain my own opinion ; but not unfrequently because I differed in opinion from them.

The severity of regimen which I have laid down and recommended in my plan of treating the lues venerea, particularly as to the previous preparation for mercury, I hope will not be condemned, because practitioners find, that they generally succeed in curing their patients, and please them better, by a mode less strict, both as to confinement and as to preparation. For it should be recollected, that it would be unpardonable in me, had I not given that plan which appeared to me to be the surest to succeed, and which was the least exposed to accident and interruption ; leaving it to the judgment of the practitioner, if he should think proper, to mitigate it on favourable occasions.

I must again observe, that no superficial view of this disease will enable the practitioner to judge with precision, or to act with success. He should remember, if he is not sufficiently careful, how much he is liable to be deceived from the complication of the case, very often, with the lues venerea ; and, if he is at any time doubtful whether the disease be merely venereal or mercurial, he will always act prudently in waiting a few days, or longer, before he pursues

his mercury and decides upon the case, rather than hazard a hasty judgment through his alarms of the venereal virus, or from the hurry and suspicion of his patient on this point. If it should prove to be only venereal, he will have lost nothing by the delay, but, if it turns out to be mercurial, his forbearance will have saved his patient from a disease which, when rendered severe by error in the treatment, is more tedious and formidable than the lues venerea itself. When the case is mercurial, it would be prudent to inform the patient, and make him sensible of the similarity between the two complaints. This may be done without raising a suspicion in his mind of any mismanagement, and will satisfy him that mercury ought not to be given. I may add, that it will oftentimes prevent him from seeking other advice, because he is led to believe that mercury is not given to him, when the symptoms, according to his own judgment, appear to require it. Indeed it will often preserve him from falling into the hands of those who may have neither honesty nor judgment enough to do justice to the practitioner from whose care he has unadvisedly suffered himself to be withdrawn. I can very truly assert, that although I take care to employ decisive courses of mercury in every instance of the lues venerea, yet I always hold myself in fear of the mercurial irritation, and instantly desist from its use, when I think there is the least probability of its having commenced.

By pursuing this plan, perhaps only for a few days, I observe very often that the mercury, which was be-

fore given, comes into greater effect; and to my having this apprehension of the disease occasioned by mercury, I impute my not experiencing the same tediousness and interruption in the cure of the lues venerea which I formerly found.

I shall now proceed to the proposed inquiry.

THE
MERCURIAL DISEASE.

SECTION I.

The General History of the Mercurial Disease.

THE desire of discovering a remedy for the lues venerea less formidable to the constitution than mercury, and a natural and venial fondness for experiment and reputation, have occasionally induced medical men to try various other modes of cure for this disease; but the result of the inquiries have been to establish a clearer and stronger conviction that mercury is the only remedy on which dependence can be placed. Although in most cases, in judicious hands, it is equal to our expectations, yet the best practitioners are at times much perplexed and disappointed; and this has given occasion to the erroneous idea that there are venereal cases which are irremediable by mercury, in which circumstances patients are said sometimes to fall victims to this disease; and we find accordingly, in almost every author who has written on this subject, relations of obstinate and incurable cases of lues venerea.

Therefore, much as we are indebted to the ingenious writings of many authors, it is still very certain that the experience of three centuries has not made us sufficiently acquainted with all the effects and operations of mercury; and that we very often mistake the morbid effects of our remedy for the progress of that disease for which it is administered. Admitting this to be true, it follows, that the further improvement in the treatment of this irksome disease must depend upon our acquiring a more accurate knowledge of those morbid symptoms which are peculiar to the operations of mercury, when it is given for any length of time, and in considerable doses.

I propose in the following pages to inquire into the history and causes of a disease peculiarly occasioned by the use of mercury, which I by no means wish to insinuate is unknown; for I shall presently produce extracts from various authors of its existence. I must however be permitted to say, that the discovery has never yet been sufficiently investigated, nor its importance in practice properly pointed out. Indeed the disease at present appears to partake of the nature of any new discovery: the fact is known, and some of the principal circumstances attending it are indirectly mentioned; but a general and correct relation of its full extent, and of its consequences, is not to be met with.

It could not, indeed, well escape the observation of practitioners, that mercury oftentimes disagreed with their patients, and that, instead of removing the venereal virus for which it was given, it some-

times produced a worse disease; yet we do not find any author who uniformly imputes this change to one true specific disease from the effects of mercury only, but sometimes to the joint effects of the mercury and of the venereal poison; at others to mercury calling into action other diseases, as scrofula, scurvy, cancer, &c. or to its giving the diseased alteration the indefinite appellation of phagedena.

The late Mr. John Hunter, in his Treatise on the Venereal Disease, (which must be allowed to contain more facts relative to the mercurial disease than can be found in any other author) very often mistakes the mercurial for the scrofulous ulcer, and imagines that there is a variety of new diseases arising from mercury, or from its effects combined with the venereal virus and the constitution, instead of considering this frequent failure of mercury in the cure of the lues venerea to be owing to one uniform diseased action produced by this mineral. Had this idea been generally adopted, I cannot help thinking that much of our practice in venereal cases would long ago have been altered and simplified; that there would not remain a question as to the powers of mercury being at all times able to remove the venereal virus under proper management;* that most of the fatal and supposed incurable cases of the lues venerea would prove to be instances of the mercurial disease, and that the anti-venereal powers as-

* The lues venerea can only be said to be incurable when the disease is got to that deplorable point by neglect, that the emaciated and hectic state of the patients constitution forbids the use of mercury.

cribed to guaiacum, sarsaparilla, mezereon, &c. &c. would be considered as founded in error.

When it is considered how very active a stimulus mercury is, we are less surprised to find that it is so often the occasion of disease ; that its reception into the circulation is soon followed by an increased irritability of every fibre ; that the pulse becomes quicker and harder ; and that the secretions, particularly of the salivary glands, are all much excited.

The excess of its simple stimulating powers in plethoric habits, where it has been largely given, or where the patient has been exposed to cold during its exhibition, is discovered by the common inflammatory affections which it produces. Sometimes a fever ensues, with inflammatory rheumatic swellings of the face and extremities ; at others, it produces local inflammations, suppurations, ulcerations, and even gangrene, especially about the cheeks and fauces: the intestines are very easily affected by it, and then violent fluxes with great pain and discharges of blood ensue. All these symptoms, however, are merely from an inflammatory diathesis ; they have no specific character separate from common irritation and inflammation, and they are cured by those means which are best suited to these complaints, when brought on by any other irritating cause.

Another effect of mercury is that debility which it produces after it has been employed for a great length of time, and in excessive doses, especially in unfavourable habits. Mercury appears to destroy the energy of the nervous system, producing weakness, tremors, palsies, fatuity, epilepsy, and mania, the most dreadful of

all its bad consequences ; and indeed no part of the body is exempt from its deleterious effects. In practice, it is true, we now seldom hear of such mischiefs, except in the hands of very ignorant practitioners ; but, in the earlier writers on the venereal disease, most deplorable instances of mercurial debility are found on record.

During the use of mercury, when the mouth has become very tender, it often happens that the dentes molares, by their pressure on the inside of the cheeks, produce ulcerations there, which have a very foul, and sometimes a sloughy, appearance, and the breath has a most offensive smell : but as these ulcers arise merely from the pressure of the teeth on the inflamed cheek, the anti-venereal power of the mercury is not suspended nor diminished by them. Indeed a considerable inflammation on the parietes of the mouth and a partial destruction of the gums, when the ptyalism is not excessive and when there is no flux from the intestines, are generally accompanied with a very rapid amendment in all the venereal symptoms.

I have thus slightly spoken of two well known diseased effects of mercury, that they may not be confounded with its specific morbid action ; for the same reason I wish to give it the title of *the Chronic Mercurial Irritation, with Ulceration* ; or of *the Mercurial Disease* ;* and I shall now subjoin a general outline

* In the course of this work I may often use the terms mercurial disease, mercurial irritation, or the morbid irritation, indiscriminately. I therefore wish to be understood, that when I use either of these phrases, I always allude to the specific mercurial disease.

of the complaint and of the manner in which it commences, before I proceed more minutely in its history.

Though I consider the mercurial disease as liable to take place in habits untainted with the venereal virus, merely by the powers of mercury only; yet, as it is of the greatest consequence to be well known where it arises in cases of the lues venerea, and, as in very few other instances mercurial courses are carried to the same extent, I shall mostly confine myself to speak of this disease as it is connected with the lues venerea.

The mercurial disease commonly commences during courses of mercury for the lues venerea, and discovers itself by the symptoms of the complaint, for which the mineral was exhibited, becoming stationary, the mercury appearing to be no longer carrying on the same anti-venereal process which it did when first administered; and, if it is still persisted in, we soon plainly detect a disposition in the former symptoms again to grow worse, or in the ulcerations to spread and enlarge, and we find that new symptoms begin to take place: a progress which is, in every respect, contrary to that which happens when the genuine effects of the mercury over the venereal virus proceed without interruption.

I therefore give the title of mercurial disease to that effect produced by mercury, when it excites a specific state of diseased irritation in the habit, suppressing the further progress of the venereal virus, but not removing it; changing the pains, sores, and ulcerations on the body into pains and ulcerations of its own specific nature; exciting new excoriations,

eruptions, and ulcers in fresh parts, with pains, nodes, and various other affections of the tendons, periosteum, bones, &c. The disease is either local or general, and arises in habits where the venereal virus still circulates, or where it has first been entirely removed. It does not depend, like the lues venerea, upon the presence of any morbid animal poison. In recent cases, where the mercury is not repeated, the irritation will in a short period cease; but when the disease has lasted a considerable time, and has been aggravated by repeated courses of the mercury, the cure becomes truly difficult, if not impossible.

The progress of this disease is generally very slow, more so than that of the venereal; I have therefore called it *the Chronic Mercurial Irritation*. In some instances it has lasted many years, especially when the throat has been its principal seat, of which kind a singular case will be given hereafter. When it has appeared to be removed, it has often, on exposure to cold, or on the approach of winter, or from some irregularity in the patient, again made its appearance. I have said that its progress is mostly very sluggish; but nevertheless we meet with cases where it is quite the reverse, and in which the patient has been destroyed by it in a short time.

The exciting causes, which occasion the constitution to take on this diseased action from mercury, are probably more in number than are at present known: but the principal ones are these: 1. The faulty manner of conducting the courses of mercury; 2. The frequent use of its saline preparations; 3. The topical application of mercurials and other stimulants to

venereal sores; 4. The failure of its proper action on the mouth and on the salivary glands; and 5. The exposure to cold and wet during the use of it.

Before I enter into a more minute investigation of this disease, it will be proper in this place to examine those facts respecting it, which are mentioned by writers on the lues venerea, as they will not only elucidate the subject, but will prove to be authorities for what I have to advance.

In Mr. John Hunter's Treatise on the Venereal Disease, many facts and observations may be found relating to the diseases which arise during the exhibition of mercury. The most pertinent to the subject under consideration are the following. In page 280, speaking of some of the consequences of buboes, he says; "It sometimes happens that these sores, when they are losing or are entirely deprived of the venereal disposition, form into a sore of another kind, and most probably of various kinds. How far it is a disease arising from a venereal taint, and the effects of a mercurial course jointly, is not certain; but most probably these two have some share in forming the disease. If this idea of it were just, it would become a specific disease and be reducible to one method of cure; but I should suspect that either the constitution or the part hath some, if not the principal, share in it; that is, the parts fall into a peculiar disease independent of the constitutional disease or method of cure; for if it arose out of the two first entirely, we might expect to meet with it oftener. So far as the constitution, or the part, has a share in forming this disease, it becomes more un-

certain what the disease is, because it must in some degree partake of the constitution or nature of the part."

"Such diseases make the cure of the venereal affection much more uncertain, because when the sore becomes stationary, or when the mercury begins to disagree, we are ready to suspect that the virus is gone; but this is not always the case: the virus is perhaps only less powerful than the newly-formed disease, and as it were lies dormant, or ceases to act, and when the other becomes weaker, the venereal influence begins to shew itself again."

Again, in page 345, "When mercury disagrees as it were constitutionally, producing great irritability and hectic symptoms, this action or irritation is not a counter-irritation to the venereal disease, but is a constitutional irritation, having no effect on the disease, which continues to increase."

In chapter the 4th, page 369, speaking of the effects remaining after the disease is cured, and of the diseases sometimes produced by the cure, Mr. Hunter mentions many symptoms which will continue after the venereal virus is destroyed, as chancre, buboes, &c. &c. which will not heal, but spread and enlarge, "especially if the inflammation and suppuration have been violent in the parts. These cases puzzle considerably; for it is difficult to say when venereal virus is absolutely gone. In such doubtful cases, the treatment to be followed becomes more undetermined."

"Such complaints are more common in the tonsils than in any other part; for we often find that while

a mercurial course is going on, and the ulcer on the tonsils healing, or even healed, they shall swell, become excoriated, and the excoriations shall sometimes spread over the whole palatum molle, which renders the nature of the disease doubtful. I believe these excoriations, as well as such other appearances of disease as come on during the use of mercury, are seldom, or never, venereal. In all such cases I would recommend not to continue the mercury longer than what appears sufficient for overcoming the venereal complaints, not considering those changes in the case as venereal.

“ It often happens that venereal abscesses will not heal up, although they have gone a certain length towards it ; for while the venereal action remained in the part, the mercury disposed that part to heal ; but under that course the constitution and part had acquired another disposition, proceeding from a venereal and mercurial irritation, affecting a particular habit of the body, or part, at the time ; which new disposition differs from the venereal, mercurial, and natural, being a fourth disposition arising out of all the three.

“ We find also that new diseases arise from the mercury alone. The tonsils shall swell where no venereal disease has been before, the periosteum shall thicken, and also probably the bones, and the parts over them shall become œdematous and sore to the touch ; but as these complaints arise while under a mercurial course, they are not to be reckoned venereal, but a new disease, although they are too often supposed to be venereal, and on that account the mer-

cury is pushed as far as possible. In such cases, if the complaints for which the mercury was given are nearly cured, and the medicine has been continued a sufficient time after to complete the cure of those complaints, then of course it should be left off; and if there should be any doubt, it should be left off rather sooner than if no such complaint had taken place; because it is probably producing a worse disease than the venereal; and if after the cure of these complaints from the mercury, the venereal disease begins again to come into action, mercury must be given a second time, and now the constitution will be better able to bear it, especially if attention has been paid to the restoring the strength of it. Those diseases of the tonsil and periosteum, I suspect to be of *scrofulous* origin."

In page 381, "Mercury given without caution often produces the same symptoms as rheumatism; and I have seen such supposed to be venereal, and the medicine continued.

"As errors in forming a judgment of a disease lead to errors in the cure, it becomes almost of as much consequence to avoid a mistake in the one as in the other; for it is nearly as dangerous in many constitutions to give mercury where the disease is not venereal, as to omit it in those which are; for we may observe that many of the constitutions, which put on some of the venereal symptoms when the disease is not present, are those with which mercury seldom agrees, and commonly does harm. I have seen mercury, given in a supposed venereal ulcer of the tonsils, produce a mortification of those glands, and the patient has been nearly destroyed."

I shall hereafter show how very true this idea is of Mr. Hunter's in the bad effects produced by mercury in the indolent or serofulous bubo, which is so often mistaken for the venereal bubo.

All these observations of Mr. Hunter forcibly establish the fact of a new disease sometimes taking place during mercurial courses ; they shew also that, whilst this disease continues, the mercury loses its anti-venereal powers and is doing mischief, and that the further progress of the venereal virus is suspended until the new disease is removed. They also furnish many other important designations of the mercurial disease ; yet Mr. Hunter does not decide *how* this new formed disease arises ; whether from the joint action of the venereal poison with the morbid effects of the mercury ; or whether it is only a local circumstance unconnected with the constitution. In many places we find him suspecting, that this new disease is something of a serofulous nature : and very often, indeed, he insinuates that there is most probably a variety of new diseases from mercury. This want of decision prevented him from ascribing this diseased action to *one regular cause*, and considering it as *one uniform disease* ; for if he considers it as a true specific diseased action of mercury in one case, we find him in another of the same disease suspecting it to be of a serofulous nature, or something else. In general he recommends mercury to be discontinued as soon as ever this disease commences ; but we do not find it laid down as a constant rule : for in some cases, where the new disease has taken place, he still allows the mercury to be continued, until a sufficient quan-

tity for overcoming the original venereal complaints is exhibited. I shall hereafter endeavour to prove, that this is a practice which is attended with great hazard, and with no advantage.

In Dr. Swediaur's *Practical Observations on venereal complaints*, third edition, page 244, we find the following remarks on *the Mercurial Irritation*. The author is speaking of venereal complaints incurable by mercury: "whether, (says he) from having been originally owing to the venereal virus, they now by time, or by other circumstances with which we are not yet sufficiently acquainted have changed their nature, in which case, instead of yielding to the power of mercury, they seem to be not only in every degree exacerbated by that remedy, but likewise, if its use be imprudently insisted upon, will at last prove fatal to the patient:" and in the next paragraph he adds, "To distinguish complaints arising from mercury from real venereal ones, great judgment is often required." These observations also fall short of a true description of the mercurial disease, rather pointing out the bad effects of mercury on some occasions, considering the whole of the new disease as proceeding from the mercury when it does disagree. There are, however, in different parts of Dr. Swediaur's useful work a variety of observations on the bad effects of mercury, which are well worthy of perusal and of attention.

In the late Mr. John Howard's *Practical Observations on the Venereal Disease*, vol. ii, page 178, mention is made of a morbid irritation from mercury. His words are the following: "In page 68 of my *Treatise on Mercury*, in 1782, I noted *that*, from

the effects of mercury when urged too far, besides a permanent degree of weakness to a very considerable degree of general irritability, there was often joined a partial one: *that*, a phagedenic appearance from mercury would in consequence sometimes arise behind the posterior dentes molares, which appearance would spread towards the uvula. If under the same circumstances of irritability there should be a venereal ulceration on the tonsils, which at one period of the course had looked well, *that*, that ulceration also might become phagedenic: *that*, a venereal bubo, from the same causes, might get into the same state, the sore becoming exquisitely painful and highly irritable, spreading from corner to corner at a great rate, eating away and undermining the surrounding skin irregularly, so as to produce an ill-looking ulceration, with ragged, callous, fiery edges. It was said, that these appearances were sometimes the mere effect of mercury, but that they were also producible by the existence of a latent venereal taint as it were roused up, but not eradicated, by the stimulating power of the medicine.

“ It naturally follows from this account of a phagedenic sore, after the opening of a bubo, that the cure must be twofold: that in the case arising from the mere irritation of mercury, when it has been urged too far, or used while the patient was not in a proper state to receive it, the whole treatment must depend on quieting the general and local irritability.”

This is a very accurate account of the mischief which may arise from mercury, and it is a good authority of the existence of the mercurial disease.

Yet we learn, that Mr. Howard is not fully persuaded that this unfavourable appearance is always from the effects of mercury only, for he sometimes imputes it to a latent venereal taint roused up, but not removed, by the stimulating power of the medicine; and he allows the use of mercurial washes in the phagedenic bubo. Indeed, we unfortunately discover in *all* the authors, who have even accurately spoken of the bad effects of mercury, cases in which local mercurials are still employed in the cure of the very phagedenic sores and ulcerations which they have occasioned; nay, we even find a repetition of the general exhibition of the mercury, when the newly-formed disease does not give way speedily without it.

Mr. Benjamin Bell of Edinburgh, in his *Treatise on the Gonorrhœa Virulenta and Lues Venerea*, vol. 2, page 293, observes, that, "Every practitioner is acquainted with this circumstance, that a variety of venereal symptoms, and more especially extensive ulcers, will to a certain length do well under mercury, when after a great deal of the medicine has been exhibited, they will begin to remain stationary, and make no progress whatever, although the mercury should be given even in larger quantities than at first: nay, in some instances they become worse. The discharge from the ulcers, instead of being mild and purulent, as for some time it may have been, will become thin, sharp, and corrosive, and the sores themselves more extensive. In this situation a farther continuance of mercury very commonly does harm, while the most obvious advantages are derived from it, after the constitution of the patient has been

restored by the influence of a proper regimen. We even sometimes find that a cure is accomplished by regimen alone, and that no mercury is required; but this can only happen where a sufficient quantity of the medicine has been previously given for destroying the virus of the disease, and where the ulcers which remained were kept up by a state of the system, which mercury, instead of removing, seems evidently to promote."

Mr. Bell then concludes, "that he believes an incipient state of scurvy, with a debilitated constitution, may be the cause of mercury not acting any longer as an anti-venereal; and that the mercury produces this state of the constitution. But unfavourable as mercury must be in habits afflicted with scurvy, we well know that it may still correct and remove the venereal poison; and I cannot suppose that mercury ever did occasion a true scurvy, although it may aggravate this complaint when it is actually present.

I conceive that it is unnecessary to cite more authorities, as the above are sufficiently numerous and respectable to establish the fact, namely, *that mercury often fails, under certain circumstances, in its anti-venereal powers, and that at this time another disease takes place.* But the authors, whom I have cited, differ as to the nature of this new disease, and what it actually is; and they do not furnish us with any precise and definite idea of the mercurial complaint sufficient in all cases to lead to its detection, when it is present in the constitution, or so clear as to pre-

vent its being mistaken for a variety of other diseases.

If we examine the first accounts given us of the lues venerea, we find them pretty generally agreeing as to the woeful effects resulting from the use of mercury; for it was *then* administered in very profuse quantities and with little knowledge of its real operations on the human frame.

It may appear very surprising that a disease so intimately connected with the treatment of the lues venerea, and consequently of such infinite importance in practice, should have been so much overlooked. This surprise, however, will partly cease, when it is considered how many obstacles lie in the way of its being well known.

First; It is a disease that mostly takes place during the course of another complaint, or at least while that complaint is under cure, and therefore very liable to be confounded with it.

Secondly; In its symptoms it strongly resembles the previous disease; beginning in the very same parts already in a diseased state, either of ulceration, or of tumour, or of pain.

Thirdly; From mercury being seldom administered in such large quantities in other diseases as it is in the venereal, we of course are almost deprived of opportunities of seeing this diseased action of mercury in any cases, but in those which are venereal, or which are treated as such.

Fourthly; The disappointment which is so often experienced in the treatment of venereal complaints, from the disease returning after its supposed cure,

induces practitioners to suspect that every symptom must be venereal which bears the least resemblance to it, either as to its seat, or as to the period of its taking place. This apprehension of course prevents any inquiry being made into the morbid action of the remedy.

Fifthly; From the mercurial disease suppressing, but not destroying, the action of the venereal virus. For if the venereal virus remains in the habit at the time when the mercurial disease takes place, the virus will again resume its own progress, when the mercurial action has ceased, or is removed. This is a most perplexing circumstance; and therefore it has often happened, that a case, which resists mercurials, often confuses the practitioner so much, that he is doubtful whether the disease be venereal or not. He however discontinues the mercury; and consequently the symptoms, from being mercurial and now no longer aggravated by this mineral, begin to mend visibly, and nearly get well: but as the mercurial disease wears out, the venereal symptoms again commence and increase. This change of type in the disease the practitioner does not see; but he is induced to try mercury again from the symptoms becoming worse. As the patient now recovers, from the complete removal of the venereal virus, he is disposed to conclude, that the whole has been venereal throughout; though he cannot satisfy himself of the circumstance which retarded the removal of the venereal symptoms in the first exhibition of the mercury.

These several circumstances, I have no doubt, have contributed very much towards preventing the mer-

curial disease from being more fully known; and they will still continue to perplex our treatment of venereal cases, unless we pay the strictest attention to every stage of this disease, and to the many equivocal appearances so liable to take place during its progress.

I have already stated my belief, that the mercurial disease does result from a mercurial irritation, independent of any necessary influence from the venereal virus, or of any combination with it. That is, I wish to observe and to enforce, that the mercurial disease can, and does, arise in habits where no venereal virus has been received. But at the same time I wish it also to be understood, that the action of the venereal virus, like the scrofulous or any other morbid action, superadded to the irritation of a mercurial course, may act as a remote cause in favouring this specific diseased mercurial action taking place, by rendering the habit more irritable: for as the constitution is generally more or less irritable, when mercury is given, let it be from what cause it will; in the same proportion will the hazard of this disease taking place be more or less increased. The locality of this disease, in many instances, is in proof of the above fact; for in those cases, in which it only exists in some ulcer or chancre about the internal prepuce or glans penis, it is certain that the stimulating applications, which are so apt to be applied to these ulcers, when united to the common irritation of a wound in these parts, (which are also naturally very irritable from their structure) are the true cause why the general exhibition of the mercury so often takes on

its diseased action thus locally, while the rest of the habit is free from it.

There are many circumstances which support the fact of mercury alone being efficient to the production of this disease; as, for instance, its taking place very often in mercurial courses entered upon under a suspicion of the cases being venereal, and which have afterwards proved never to have been so. Instances, indeed, of this kind may be found in Mr. John Hunter, and in other authors, some of which I shall hereafter point out. But no where is the mercurial disease so often detected, independent of any possible venereal virus being in the habit, as in the cases of the indolent or scrofulous bubo being mistaken for venereal, and treated as such by mercury, until the error is discovered.

It also very often happens, that a second course of mercury, on the bare suspicion of an affected habit, is administered. The suspicion is found to be groundless; but the mercury has run into its diseased action.

The two following cases will perhaps tend to illustrate the point still stronger; the first proves, not merely that mercury is of itself sufficient to produce the mercurial disease, but that, like venereal poison, when introduced into the circulation by a wound, it acts with a considerably increased force and malignancy.* This is a circumstance with which every practitioner should be well acquainted.

* In Mr. John Hunter's Treatise on the Venereal Disease, p. 336 and 337, are several cases of very small quantities of mercury producing a general effect on the constitution from being applied to wounds and sores.

The first case, is that of a gentleman of a stout healthy constitution, who applied for the cure of a small chancre, not of the bigness of a pin's head, and of not more than four days standing, on the extremity of the glans penis; and it was the first infection he had ever received. The chancre was touched with the lunar caustic, and in three days the wound perfectly cicatrized; but a careful course of mercurial frictions was pursued for upwards of four weeks after the healing of the chancre, and his mouth was tender during the greater part of the time. Immediately on his desisting from the mercury, he requested that a small obstruction at the entrance of the urethra, which had existed from his birth and impeded the full stream of urine, might be removed, which was accordingly done by a simple division of the obstructing membrane with a common bistoury. As the wound was constantly exposed to the acrimony of the urine, it would not heal kindly; but yet it did not appear disposed to grow worse. The patient's fears, however,

Dr. Joseph Adams, also, in his *Observations on Morbid Poisons*, 8vo. edition, 1795, page 133, has with great truth observed, "that mercury on a crude cut will induce phagedena. This is often the more evident in cases of the bubo, particularly when opened by art. Here the edges being crude, or not contaminated with the venereal poison, mercury will frequently produce so sudden a disposition to phagedena, that an experienced practitioner will direct the exhibition of it to cease, as soon as the lips look particularly clean and florid. If this is not done, phagedena soon spreads throughout the whole ulcer, if the venereal action has been superseded. But if the bubo was not originally venereal, which is much oftener the case than we apprehend, the consequences will be much more serious and lasting."

The same is related in his *Observations on Morbid Poisons*, chronic and acute, 4to. second edition, 1807, p. 82 and 83.

that it might be venereal, became so extremely great, that it was impossible to restrain him from the use of mercury. A few half-drachms of the ointment were then given him, with directions to rub in one every other evening; and this was done more to amuse his mind, than from any idea that the sore could be venereal. But instead of attending to his directions, he rubbed in two or three half-drachms every night; not on the inside of his thighs, but with as much care as possible into the wound and glans penis. In a few days an inflammation of the whole body of the penis, attended with a severe symptomatic fever, was the consequence of his imprudence: the different lymphatic glands on the back of the penis inflamed and swelled, and a succession of suppurations took place in them. By leeches, by bleeding in the arm, by saturnine applications, and by a strict antiphlogistic course, the fever was subdued and the sores were healed, and a phymosis, which had taken place at the beginning of the course, was removed: at this time it was discovered that a considerable part of the glans penis was destroyed, by a foul stinking ulceration. At this period mercury was again proposed; but the patient was made thoroughly sensible, that all the mischief arose from the excessive irritation of the last course; and that lenient applications and the progress of time, were all that were wanted for his cure. Mercury was not used; and in two months he appeared to be perfectly well. But about six weeks after this period, on exposure to cold, he complained of a sore throat which could not be removed by the usual treatment. His pulse was uncommonly quick, and, when he spoke,

it was with that kind of voice which would be expected from a person whose fauces were swelled and relaxed. On looking into his mouth, there was perceived visibly a pretty general excoriation of the tonsils, and of the velum pendulum palati, also on the posterior part of the pharynx, and on the inside of both the cheeks. These appearances, together with some broad blotches on his hands and pains in his bones, withstood the power of various medicines, not of the mercurial kind, for two or three months: but at last with country air, and by regular living, he finally recovered without another grain of mercury being given.

In this case I cannot suppose that the venereal virus had any share in producing this severe mercurial disease; for the infection was so extremely slight in its appearance, that it could not be positively affirmed, that it was ever received into the circulation. But if that had been so, the mercurial disease was produced solely by the second exhibition of the mercury, where there was no suspicion of a venereal taint, but in the mind of the patient. The violence of this disease in this case must be imputed to the mercury being thrown in by a wound.

The second case, is that of a gentleman of a weak and puny constitution, who complained of an indolent enlargement of the inguinal glands in both groins, on the decline of a tedious cold and fever which had confined him some weeks. Several medicines for the purpose of reducing them were applied for some time both generally and locally, but without success. A suspicion then arose that they might be

venereal, and mercurial frictions with calomel * pills were tried for many weeks; but still the swellings remained, and he now began to complain of pains in his bones, of a sore throat, and of a thickening of the periosteum on the right tibia. The mercury having affected his mouth, this disease was no longer considered as venereal; and cicuta † and the decoction of sarsaparilla were given in the room of it. His throat became well, and the tumour of the inguinal glands subsided; but his pains more or less affected him for nearly a twelvemonth, when at last they gradually left him, and he continued to be well.

In this case, as the swellings arose at a critical period, namely, at the decline of a fever; and as there was no room to suspect an infection, the patient having been confined to his house; and as there was not a single symptom, except the buboes, which could lead to that idea, the case must be fairly considered as an instance of the mercurial disease, purely from the effects of mercury: for all the symptoms, which could be suspected to be venereal commenced after the mercury had been used for a considerable time, when it was impossible for the venereal virus to shew itself.

Sir William (then Dr.) Fordyce, in his Review of the Venereal Disease, page 103, gives a remarkable instance of the irritation produced by mercury. He says, "I know, at this moment, an old

* *Calomelas* is now named, in the new London Pharmacopœia, *Hydrargyri Submurias*.

† *Cicuta* is now named, in the new London Pharmacopœia, 1809, *Conium*.

patient of mine who has returns of the salivation which lasts for weeks together, accompanied with a brassy taste in the mouth as if he were under a course of mercury, though it is now above twelve years since he has used any in whatever shape."

This case, as well as many others of tedious salivations related by various authors, certainly goes strongly in proof, that mercury is in itself capable of producing the disease in question; for these protracted salivations, though they commence in habits infected with the venereal virus, cannot be supposed, in their latter stages, to depend on any other cause but action first produced by the mercury.

The mercurial disease cannot be reckoned an infectious complaint; for I consider it as not depending upon the presence of any morbid poison, but on a specific state of irritation only, induced by mercury, and, beyond a doubt, even continuing long after every particle of this mineral is removed. This surely must happen in those mercurial cases which have lasted months, nay years; yet, as there may be a latent venereal poison lurking in the habit, we ought cautiously to avoid exposing a patient to absorption from the mercurial sores.

The erroneous opinion that there are some cases of the lues venerea which mercury cannot cure, will, as I conceive, be removed, when the mercurial disease is better and more universally known. Hereafter, indeed, when mercury is administered in sufficient quantities and yet fails in curing a disease supposed to be venereal, it will always be understood, that it is no longer really so, but that it is a disease arising

from the remedy. For admitting, what indeed is often the case, that the venereal virus is still in the habit, yet it remains there inactive and harmless; for when it ceases to be so, and resumes its action, it must be at the cessation of the new disease; and it can then be removed with ease, by again exhibiting the mercury with discretion. I may appeal to the ablest practitioners in venereal diseases, whether the worst cases of the lues venerea which present themselves for cure, when no mercury has been previously employed, ever resist its curative action; and I may further ask, if its action in these cases be not attended with the same certain good effects, which follow its use in the mildest instances of the disease. All these cases of the lues venerea, which are supposed to be incurable, have undergone repeated courses of mercurials, and in which there has been much mismanagement. However, many of them finally get well, and without more mercury. Could this possibly happen if the cases were really venereal? Must we not rather suppose, that, when mercury will not cure them, the venereal virus would continue to make its progress till the patient were destroyed by it? For this was the consequence of the disease till mercury was found to be its antidote; and it is so now in every case of the lues venerea where the mineral is never given.

In tracing the history of the mercurial disease from its first mild state, where the mercury merely ceases to act as a specific on the venereal virus, to that very formidable state when it is almost incurable, and from its malignant aspect has been often

considered as cancerous ; it is very necessary that its progress and appearances should be pointed out.

It is proper to know, 1st, That it may exist only as a local disease, that is, when the disease, for instance, is confined to some local sore, or ulcer, but when the mercury is acting on the rest of the system with a due effect towards removing or correcting the venereal virus.

2dly, That it may exist as a general disease, when the specific irritation affects the whole constitution, and when all the local ulcerations and symptoms, previously existing, are converted into ulcerations and symptoms depending upon this new diseased action, and that the venereal virus is still present in the habit, but suppressed in its progress.

3dly, That the disease may be general in its effects, but may not have taken place before the venereal virus had been first removed.

The first and mildest stage of the mercurial disease is, I believe, the least known, and to which the least attention has been paid ; but as it occurs oftener than any other, and when overlooked, leads to much mischief, it is very necessary it should be accurately investigated ; especially as greater difficulty attends its detection in this state, than when the disease has assumed more decidedly its own type.

The disease then, in its first commencement, hardly extends farther than in the anti-venereal powers of the mercury being lost, the progress of the venereal virus suppressed, and the symptoms gradually changing their diseased action, but still bearing every exterior resemblance of a venereal complaint, and

rather becoming stationary, than shewing any disposition to spread, or to look more malignant.

When this state of the complaint takes place, it is generally imputed to the quantity of mercury exhibited not being efficient for the obstinate nature of the disease, or to an unfavourable (but undefined) disposition in the local ulcers for healing; or perhaps to some other disease called into action. In these cases it is the practice to alter the topical applications, to continue or to increase the quantity of the mercury, or to change it for some other mercurial preparation; but very seldom to pursue the only plan which can affect any favourable alteration, I mean, at once to discontinue the mercury. The apprehension which the practitioner has, that he may send his patient uncured from under his care, seldom permits him to do this, while he thinks he sees the same disease still before his eyes; and the consequence is that, the mercury being continued, the ulcerations enlarged, or the other symptoms become worse and new ones appear; and that now a more obstinate stage of this diseased irritation commences. I will illustrate the first progress of the disease by a case, which will, perhaps, afford a plainer explanation of what I mean.

A gentleman applied for the cure of a lues venerea; the symptoms were these: namely, two chancres of some weeks standing on the glands penis, rather considerable in size, with an uneasiness and swelling in the inguinal glands. The chancres were simply kept clean by being washed with milk and water, and he took *pilulæ hydrargyri*, gr. 5. every night, and every

other night he rubbed in unguentum hydrargyri fortius 1 dr. and $\frac{1}{2}$. He refused to submit to any confinement; his mouth became hot and uneasy the third day, but there was no increase of saliva, and he complained of being very feverish; the uneasiness and swelling in the inguinal glands left him, and the chancres began to heal. At the end of three weeks he became very restless with the quantity of mercury he had taken, the secretions were all checked, and his mouth was nearly unaffected. It was judged that, as the chancres did not now advance in their healing, more mercury was wanted; the quantity he rubbed in was therefore increased, and the patient confined to the house, but without any advantage. The chancres were much the same at the end of another three weeks' course of the mercury. It was now thought adviseable that no more should be given, and the decoct. sarsaparillæ was ordered in its room. The patient, after some time, found his general health better, and thought the chancres a little mended; but, at the end of the first month, the ulcers began to grow much more painful and to increase; and he also complained of pain in his bones. It was now said, that mercury could only cure him; that the case was all along venereal, but that a mercurial course had not been persisted in for a sufficient time. Mercurial frictions were at this period only employed, the pills being discontinued. In a short time a gentle ptyalism came on, and, by persisting in this plan for a month, the ulcers all healed, the other symptoms ceased, and he recovered his usual health.

Cases of an exactly similar nature must occur repeatedly, and the same mistaken opinion is often formed as it was in this instance; for I have no hesitation in considering this, as a fair case of the mild state of the mercurial disease, from the moment the chancres resisted healing on the first exhibition of the mercury, till the time when the symptoms began to grow bad again after it was given up the second time. For, it may be asked; "If this complaint had been truly venereal through its whole progress, what reason can be assigned, after the mercury had begun to act as an anti-venereal and had in part cured the disease, why the completion of the cure should not have taken place?"

But if this case is considered as mercurial, the whole matter at once becomes evident. At the period the disease ceased to yield to the action of the mercury, the anti-venereal powers of this mineral were lost. Increasing its quantity was more likely to render the disease obstinate, than to remove it; for though the venereal virus here was not gone, yet the mercury could not remove it while its diseased action lasted; and in less favourable constitutions than this gentleman's the second exhibition of the mercury would have occasioned a very rapid increase of the ulcerations, and perhaps an affection of the throat, which is a frequent symptom of the mercurial disease. From there being no interval between the first and second exhibition of the mercury, there was of course no opportunity given for the mercurial irritation to wear itself out; but as it was discontinued for about a month after the

second course, a period was given sufficiently long for this mild state of the disease to cease. Then, as the disease gradually declined the venereal virus, being no longer suppressed, came again into action, making its further progress upon the constitution discoverable by the new symptoms which took place, and the ulcers enlarging; but the mercury now being very properly given, and the patient submitting to confinement, the cure was easily completed.

If, however, the mercurial disease had been detected in the first instance, much time might have been saved in this cure; for the mercury ought to have been discontinued the moment the symptoms appeared to stand still, perhaps at the end of the first fortnight; then perhaps the interval of a week or less would have been sufficient for the morbid effects of the mercury to have worn themselves out, and the course might then have been removed without any fear of its failing.

This case, however, is not exactly the mildest state of the mercurial disease which may occur; for the complaint lasted a considerable time after the discontinuance of the mercury, and the ulcerations did not begin to spread from the venereal virus, nor did the other general symptoms of the lues venerea begin to shew themselves until nearly the expiration of a month from the time when the second course of mercury was left off, during the whole of which period the venereal virus was suppressed, and the mercurial irritation was in action.

Now we every day have instances, in which the exhibition of mercury in the lues venerea is at first

followed with a quick and a regular progress of amendment in the symptoms ; but evidently, as the course is further continued, the advance to healing becomes proportionally slower, though there is still some progress made in the cure. No good reason can be alledged for this taking place if the mercury is still conducted with equal care and caution in its exhibition, except that of its having become less friendly to the disease. For it will always be found that increasing the quantity of it, (provided it was given in sufficient doses before, which the amendment in the symptoms indicated) I say, increasing the quantity of the mercury does not remove the obstruction which now prevents the disease advancing faster to a cure ; nay, on the contrary, more mercury only retards the cure. Let the opposite mode be tried, and let the mercury be discontinued three or four days, during which time let the patient take a dose of some purgative medicine, and then renew the frictions, and the progress in the cure will be found to be as rapid as in the first instance. Experience, which is the test of every opinion and of every assertion, will, I am confident, amply convince the practitioner of the truth of the doctrine just stated ; a doctrine which, as I conceive, is also consistent with sound reasoning, a cause being assigned for this impediment in the cure, and a mode of relief, answering strictly to the cause, being pointed out. In my own practice I have found this to be so invariably true in every instance of the mercury losing its powers as an anti-

venereal, that I know for a certainty, that to discontinue its use for a short time is the most sure, or I might rather say, the only way of recovering its true action; and that the last thing which I should think of in these cases, would be that of increasing the quantity, or of pushing on the use of the mercury.

But if we were even mistaken in our judgment in some of these cases, as to their being mercurial, the discontinuance of the mercury for a few days can produce no ill effect; and I conceive, that we must arrive at a greater certainty in our knowledge of the nature of the impediment, and what it really is, than we ever can do by a contrary practice. It may be now presumed, that from a very early period of a mercurial course this mischievous effect may commence. It is therefore necessary that we should watch the action of the mercury with the closest attention, for if we overlook it in this slight stage, and persist in our mercurial course, we have no chance of removing the disease; but on the contrary we must inevitably aggravate it, till, instead of its merely existing in a mild state which admits of an easy cure, we shall have a very formidable and obstinate disease to contend with, which may require months to overcome.

I have been speaking of the mercurial disease in its earliest stages, and I have observed that its detection is principally made, by discovering that the ulcerations and sores cease after a certain time to get well from the continuance of the mercury; but on the contrary that they soon shew a disposition to grow worse. Yet it will happen occasionally, though

by no means so frequently, that the mercurial disease takes place where no ulcers or wounds exist; that is, the mercury takes on this action during a course which is exhibited for the removal of the venereal virus, after every local appearance of the disease is first cured; or perhaps pains in the bones are the only symptoms of the lues venerea which are present. It may be asked; how in this case is the mercurial disease in its commencement to be detected?

I propose the following considerations. Though there are no wounds or ulcers, yet if the pains in the bones do not give way; if any new set of symptoms make their appearance; if the mercury grow unfriendly to the patient's general health, and shew no disposition to produce an increased secretion of the saliva, or any soreness about the gums; and if the quantity given be very considerable, or if it be a saline preparation of that mineral;—I say, if there be a combination of all or of several of these circumstances, we may then suspect that the mercurial disease is forming, and that the mercury should be omitted for some time, and then begun upon again, if the first exhibition of the mercury were not considered as complete. But if there be no one symptom to guide us, the disease must after a short time discover itself by an appearance of some of its own symptoms, which indeed resemble the venereal ones, as perhaps a re-appearance of ulceration, or of excoriation on the penis or prepuce; or some affection in the throat or in the fauces, or eruptions on the sur-

face, or pains and tumours about the bones, the membranes, or the tendons.

It is satisfactory, however, to be apprized, that the disease is not very apt to take place, unless there is some wound, or ulcer, or some other marked symptom of the lues venerea in the habit; for it is the additional irritation, produced in the constitution by these local symptoms, which partly excites the mercury to take on its diseased action.

The irritation, indeed, from a scrofulous sore, &c. may equally prove as powerful an exciting cause as the venereal.

The greatest skill in these cases is certainly requisite to enable the practitioner to decide with precision, from the want of determinate symptoms to guide his judgment, and from the little malignancy which there is in the complaint when it first commences. We ought to weigh with nicety every circumstance of the previous treatment, when we suspect that a case is becoming mercurial. This, in some degree, proves the necessity of adopting a mode of administering mercury different from the practice which is commonly followed, to the intent that the chances for this disease taking place may be lessened. I have little doubt, as I shall hereafter endeavour to prove, that this desirable end can most probably, or perhaps only, be obtained by banishing from our practice every saline preparation of mercury, by removing (as much as possible) every kind of general or of local preternatural irritation in the habit, and by observing intervals in our exhibitions of the mercury; that the habit may not be too much excited by

the constant application of the mineral, but be left to recover itself in part from the first effects of each mercurial friction. A larger quantity by this means may finally be thrown in with less chance of a diseased action, the constitution being thus, as it were, gradually accustomed to the new action of the medicine.

The diseased action of mercury, suppressing the venereal action, though it cannot remove it, appears to depend upon that law in the constitution which is so well explained by Mr. Hunter, namely, "that different diseased actions in the whole constitution, or in a part of it, suppress and destroy one another, that is, that the weaker action gives way to the stronger." For instance; the eruption of the measles often supersedes the appearance of the small-pox by inoculation; and a fever will oftentimes suppress the symptoms of a gonorrhœa, until the fever is removed, when the pain and discharge will again return. This opinion of Mr. Hunter's, though it has been opposed, appears to be so well founded, both in fact and reasoning, that it is surprising that it does not rather meet with universal assent. It may be illustrated by an immense variety of instances, and it appears to be irreconcilable to reason and to experience even to suppose the contrary; namely, that two diseased actions, each of a different specific nature, can go on at the same time in the same part.

The action of mercury, as an anti-venereal, is not perhaps of any greater extent than is sufficient to counteract the venereal action, or to produce the expulsion of the venereal virus; but this its morbid ac-

tion exceeds considerably its salutary operation, and must be entirely of another nature; or we might expect that, though it produced a diseased state of irritability, the venereal virus would be corrected and removed. But, indeed, it appears to possess no other power over this virus than that of suppressing its further progress by its superior degree of irritation. This, however, is not a very uncommon circumstance; for we know that the body is liable to a variety of diseased specific actions, very dissimilar in their effects from each other, and which suppress one another; and that there are other medicines besides mercury which occasionally produce diseased actions.

I am now to consider the second stage of the mercurial disease. This commences when the first check to the anti-venereal powers of the mercury is overlooked, and its use is still continued. At this period all the local ulcerations, and other symptoms of the lues venerea in the habit, begin to change their type and become truly mercurial; and the disease under this form, unless discovered and properly treated, will proceed to an almost incurable state of malignancy. Its limits are marked by that of the venereal. Wherever the venereal disease can show itself, there the influence of mercury in its morbid, as well as in its salutary, action can extend. Every venereal ulcer, whether seated in the throat, or on the glans penis, or on the prepuce, or in the groin; whether on the lips, the head, the trunk, or on the extremities, in short on whatever part of the body it is found, may change its type and take on the mercurial ulceration. A bubo, which is at one time venereal, may, at ano-

ther period be spreading and ulcerating from this morbid action of mercury : but the disease is not confined to the ulcerative process only. Pains, nodes in the periosteum and bones, gummatous affections of the tendons, of the ligaments, and of the fascia, may change their venereal nature and depend entirely upon a mercurial affection. A kind of marasmus, or that general and almost indefinite indisposition of the constitution produced by the venereal virus, in which the patient becomes pale and thin, loses his strength and appetite, and is worn out, as it were by pains, weakness, and an obscure fever, this species of marasmus, I would observe, does also often take place from *the disease of mercury*.

This disease not only changes every venereal symptom, which is present in the habit, into its own nature, but fresh symptoms are often added, as if the venereal virus were making a further progress ; as for instance, excoriations and ulcers will appear in the mouth and throat, ulcers on the penis and on other parts, which have healed, will break out afresh, or new ulcerative spots will appear round the old ones ; and this new disease spreads, the whole system becomes more diseased than it was in any previous stage of the lues venerea. In the earlier stages of the disease the ulcerations only appear like venereal ones growing worse and larger ; but in the latter stages of it they become more malignant, and bear a stronger resemblance to what is called the phagedenic ulcer. Indeed in some few very bad cases, in which there has been much mismanagement, the sores appear to have almost the malignancy of can-

cer, and have been mistaken for this disease, though as I shall hereafter attempt to point out, there is always to be found a real specific difference between the two disorders.

Now, as I have before observed, authors do not look on the disease just described, as on an uniform specific disorder, which is the genuine effect of a mercurial action. This, however, I think they should have done, when they had seen that, at whatever period of the previous disease, or in whatever part, this morbid action of mercury commenced, the symptoms and progress were always the same, making allowance for the different structure of the parts affected, and that the mode of treatment must be the same, if the cases end successfully. Authors, I say, have rather looked on this effect of mercury in different cases in different lights, instead of considering it as an uniform specific disorder. Sometimes they consider it as acting mischievously, by its calling a serofulous disposition into action; or by its excessive irritation inducing scurvy or cancer; or by its forming a variety of new diseases from a combination of different causes. They have therefore, as we find, often overlooked the new action which the constitution has taken on from the mercury, and have erroneously supposed the disease to be some one of the complaints above described. This has occasioned a very wrong mode of treatment to be pursued. The mercury, perhaps, is not instantly discontinued, or such a mode of treatment is adopted as is best suited to the disease supposed to be called into action, whether it be serofula, or scurvy, or cancer. It is therefore of im-

portance to know that these diseases are not produced by mercury; and again, that none of them occasion the mercurial disease, but, as the constitution is by them rendered more irritable, the mercury is consequently more liable to induce its own morbid action.

Let us examine the matter a little closer. Suppose the case to be a serofulous action produced or called forth, by the mercury: still how can we account for the venereal virus being suppressed in its action, but not removed? If the mercury be unfriendly to the serofulous nature of the sore, still we must imagine that the serofulous disposition would not hinder the mercury's curing the lues venerea. For we certainly do see every day that the most decided instances of serofulous habits, with every mark of the disease upon them, and with a variety of ulcers from the cause present, do yet receive easily the venereal virus; and as easily go through a long course of mercury, even to the perfect removal of the previous infection. The penis also is a part not much exposed to serofulous action; but we shall find the mercurial chancre on the penis and prepuce to be the most common appearance of the mercurial disease. I can readily admit that serofula may be the first disease, and may be mistaken for the venereal; as I am sure is often the case in some buboes. Here the mercurial disease may take place, and, as in the venereal disease, check the progress of the serofulous action, and that, after a certain period, the morbid action of the mercury may cease and the serofulous appear again; but

this will undoubtedly be attended with a very visible alteration in the appearance of the sore.

A real scorbutic habit may indeed be much aggravated by mercury, yet we had no reason to suppose that the exhibition of mercury would produce a true scurvy, or, if it were present in the constitution, that it would prevent the mercury's removing the venereal virus if it could be administered. There is another very strong objection to our supposing, that the diseased action of mercury consists in nothing more than calling forth some latent diseased action of the constitution, as scrofula and cancer; for if we admit (which indeed cannot be denied) that, when mercury thus disagrees, the venereal action is suppressed, we also should suppose that these diseases, when present, would also always prevent a venereal infection. Now we well know that scrofula or cancer cannot prevent a venereal infection from taking place.

With respect to the idea, that mercury causes a variety of new diseases from a combination with the venereal virus, &c. &c. I would observe, that if I have proved, and if it be found true from observation, that mercury can of itself produce the disease in question, this doctrine, as I conceive, requires no further confutation. For, as I have just remarked, the regular and steady character of this complaint in its symptoms, in its progress, and in its cure, proves the disease of mercury to be of one uniform specific nature.

As to calling the mercurial ulcer by the term phagedena, as this implies no particular disease, but is only intended to convey the idea of an eating, cor-

roding ulceration, and difficult of cure, no great objection can be made to it; but it is not sufficiently definite, and it rather marks the local nature of a sore, than conveys any notion of a real disease in the general habit.

The local appearances of the ulcers in these different disorders are also very dissimilar. A slight description of what we suppose to be the distinguishing characteristics of the serofulous, scorbutic, cancerous, and mercurial ulcer, will evince this, and shew that there is not that fluctuation in the character of this latter ulcer, which some have imagined. From the venereal ulcer, in its earlier stages, I know that it cannot be very easily distinguished without considering many other circumstances at the same time.

The serofulous ulcer is generally preceded by an indolent hard tumour in some lymphatic gland, or glands, which comes with considerable difficulty to suppuration. The discharge from the sores is seldom good pus, but generally of a viscid, glairy, and curdled, or sometimes of a watery, nature; its progress either to healing, or to growing worse, is slow and tiresome; and the edges of the ulcers are often painful, much raised and tumefied, but seldom have phagedenic malignancy about them.

In the scorbutic ulcer of the true scurvy there is no good digestion, but a discharge of thin fœtid sanies, and often a bloody kind of humour. The blood coagulates in cakes within the circumference of the wound resembling pieces of flesh; the wound or ulcer is surrounded with a livid redness; the flesh itself is soft and spongy; and fungous flesh pushes up below

the skin, turning it back; and an appearance of dissolution, rather than of ulceration, marks the scorbutic ulcer.

The term scurvy, indeed, as Mr. John Hunter and others have justly observed, is often applied to ulcers and eruptions which have nothing to do with the real scurvy; it is also applied to swelled, bloated, ulcerated legs, in gross sedentary livers, and also to many of the herpetic eruptions about the hands and feet, and to several kinds of pimply furfuraceous appearances upon the face: but these mistakes are not likely to perplex the knowledge of the mercurial sore.

The cancerous ulcer is attended with violent sharp pains, either like the pricking of lancets or the burning of boiling water; the discharge is ichorous, and the disease generally preceded by a schirrus in the part; the edges of the ulcer are hard, ragged, and unequal, and reversed in different ways, sometimes inwards, and at other times outwards; in some parts there are deep excavations from loss of substance, or risings from fungi, and the wound is subject to hæmorrhage from the erosion of the vessels.

The mercurial ulcer is commonly attended with more pain than the venereal; it is never fungous as the cancerous is, nor has it the indolence of the scrofulous, nor the putrid tendency of the scorbutic, ulcer. It will often heal, and after a time break out afresh in the neighbouring parts; and this it will continue to do for many months, particularly in throat cases. Sometimes the mercurial ulcer is in a state of great irritability, spreading with much pain in an irregular and jagged form in all directions upon the surface of

the cutis, discharging a thin ichorous humour. Some parts of the wound, however, will appear to be healing, others will be absolutely skinned over, and this, in the very centre of the ulceration; while in other places, a very angry phagedenic ulceration is going on, and a considerable degree of common inflammation attends the whole wound. Where the ulceration is making a progress, the edges of the wound look sharp, and as if they had been divided by a knife. It sometimes happens, that the mercurial ulcer is first produced by a sudden and considerable sloughing in the part; and, when it is in the groin, it is often to the extent of the whole bubo, through the cutis and cellular membrane, and even into the substance of the muscles below, leaving a large excavation, with a ragged sloughy cutis hanging over it; and with this state of the sore there is often a tendency to some degree of hæmorrhagy.

We sometimes find that a mercurial sore is disposed to slough in some points, and to ulcerate in others: but then the sloughing is not of that considerable and alarming nature: and I may here observe, that it is not every kind of accidental sore which occurs during the mercurial disease, even when the irritation is general, and takes on the mercurial action.

One of the striking characteristics of the mercurial ulcer is to heal, and break out again from time to time; to heal in one part, and grow bad in another; and we find this disposition to heal even in almost the incurable state of this disease, whether in the bubo, in the chancre, in the throat, or on the face.

This is neither common to the venereal, nor to the cancerous virus, whose ulcerations occupy the part first affected, and spread from thence as from a centre.

I have said that the mercurial ulceration is more irritable than the venereal; for sometimes on the glans penis it will not bear the slightest application without pain, but the pain is not that lancinating pain which is common to cancer. The mercurial ulcer in the throat, though very formidable, is often unattended with much pain, and will bear the application of astringent gargles; but this is owing to the structure and situation of the throat and fauces: for venereal and other ulcers, situated there, often occasion so little pain, that they are not discovered for some time after they have first attacked the part; and the acrimonious discharge, which these ulcers occasion, cannot rest upon and irritate the sores, as it does in other parts when ulcerated.

A circumstance which strongly distinguishes the mercurial from the venereal ulcer, is the appearance of fresh ulcerations around that sore, which was an original venereal one during the exhibition of mercury. An ulcer, which is really venereal, will neither have fresh venereal ulcers appearing around it, nor will it enlarge itself, when mercury is acting as an anti-venereal. Many of the mercurial cases which have been called scrofulous, on the supposition of mercury having brought this disease into action, have been in patients who never had a single scrofulous sore before in their lives, nor have borne any of the well-known marks of that constitution about them.

Therefore, on mature reasoning, we ought to reject the idea of the bad effects of a remedy producing a disease, which certainly depends on a peculiar and upon an original organic structure of the lymphatic system.

It is here proper that a caution should be given, not to mistake, for a mercurial ulceration, a wound which resists healing because the mercury administered is insufficient to correct the venereal virus which occasions it. If a course of mercury is too slight for the complaint to which it is applied, from the practitioner not having well considered the extent or duration of the infection; or if the patient be remiss in the application of the remedy; or if it be a preparation of mercury not likely to produce a permanent cure, or if it be not continued long enough; the venereal ulcers of course, though they grow better, will not heal, but the mercury given will not make the sores more obstinate, as Mr. Benjamin Bell imagines; but, on the contrary, if the quantity of mercury be increased a little, or continued for some time longer, these cases heal with the greatest readiness; and a due allowance may be made for the quantity of mercury which had been previously given. When we learn that the quantity of mercury, in these stationary cases, has not been given equal to the extent and standing of the disease, or that it has passed off too quickly by the mouth, by the bowels, or by the other secretions, we may then begin to suspect the cause of the ulcers not healing; and upon examining them we shall find, that they have none of that irritability about them common to the mercurial

ulcer: but on the contrary, that they have even less irritability than the venereal ulcer, where no mercury has been given, in consequence of the virus having been in part corrected. The integuments, &c. surrounding these ulcers are generally much thickened and indurated. Buboes are often found in this state, neither healing, nor becoming worse, from the defective action of the mercury. We find in them little or no disposition to spread; yet they are often attended with a considerable indolent tumefaction of the glands, like a serofulous affection, and with two or three sinuses which are not at all painful; but there is nothing of a phagedenic or sloughy appearance about them. When these cases have occurred, I have generally found that a few brisk mercurial frictions under confinement, so as to make the mouth sore, (which will seldom or ever be found to have been the case before) soon bring on a favourable change in the disease; the wounds will begin to heal, and the surrounding indolence to disperse.

I have said, that the mercurial disease may be either local or general; that is, the morbid irritation, arising from the mercury, may pervade the whole habit, or may be confined to a single sore or ulcer: it is only, however, in the slighter instances of this disease that it can be local. When the complaint has been long in a particular part, the irritation must become universal; for, if it be not brought on by the general action of the mercury, the habit will become affected by the irritation communicating and spreading from the local sore or ulcer. A mercurial chancre may, indeed, be a long time in

existence, if not very considerable without any general affection of the system ; but neither a mercurial bubo, nor a mercurial sore throat, can remain a local complaint for any long continuance. When the disease is only local, though the mercury generally exhibited be the immediate cause, yet the structure of the parts and the local treatment which has been pursued, have always a very considerable remote influence in producing the ulcer, as will be seen when the mercurial chancre is considered. This locality of this disease at times cannot be disputed, as cases are continually occurring, in which we see the mercury rapidly removing pain and blotches, while some chancre or bubo, recently opened, becomes as rapidly worse from the effects of the same course. We cannot, however, always determine the precise time when the disease passes from a local to a general complaint, nor is this knowledge of much moment with respect to our treatment of it ; for this should be laid down as an invariable rule, namely, "to discontinue all mercurials, when a mercurial sore or ulcer makes its appearance, let it depend on a local or on a general cause."

With respect to the duration and removal of this disease when it is local, and when the habit in general partakes not of the irritation, it is always curable, and more quickly so than under any of its forms as a general disease. Nay, if mercury be not given any longer, it ceases spontaneously ; but if the complaint be general, and has been much aggravated by repetitions of the mercury, or if it be disposed to a rapid progress, which is very seldom the case,

the patient may be soon destroyed by it. I have seen it fatal in the throat, in the groin, and upon the external parts of the face. Sometimes the ulceration eats through a blood vessel, and the patient is destroyed by the hæmorrhage.

In general, however, its progress is very slow, much more so than the venereal, for a patient may remain many years under its influence, as it appears from several of the cases mentioned in the course of this work. When it is of this long duration, the pains and ulcers are worse at some periods than at others. Sometimes, perhaps, all external appearances are gone; but the return of winter, or other causes, will evince that the general irritation is not removed, as many of the symptoms return; but these are cases in which much mercury has been given at different times.

In local cases, a few days abstaining from the mercury will afford a sufficient time for the irritation to subside.

When the disease is general from an excessive quantity of mercury, if the mineral be not administered a second time till the disease is fairly over, and the mercurial ulceration be not very extensive, a few weeks will remove the whole complaint.

The throat-cases, when they are of any extent, are the most obstinate, next to those upon the face; after them the groin-cases; next to them we may reckon the mercurial chancre, and lastly we may place the mercurial ulcerations on the body and extremities, for these heal generally the kindest, if they are not connected with membranes, or joints, or

the periosteum, or bones. But this rule can only hold good, when the complaint is of a similar extent and duration in these parts; for a slight mercurial sore throat may be easier and sooner cured than a large mercurial bubo of long standing. A mercurial chancre may be from its size and inveteracy, at times, longer in getting well than a recent mercurial bubo. When the disease is treated in the manner which I shall hereafter point out, a more considerable difference in its duration will take place, than if it were left to itself; and I have been able to remove this complaint in a shorter time by this mode of treatment, which, I am convinced, must have been continued many months if the same plan had not been pursued.

When ulcers and other apparent symptoms of the lues venerea return, after mercury has been employed, it appears to be by no means an easy thing to decide at first sight what the disease then is, whether venereal or mercurial. For the venereal or the mercurial disease may re-appear, according as either the one or the other may be still present in the habit; and the symptoms of the two complaints bear a strong resemblance to each other. However, if the history of the disease from its commencement be maturely considered, I think the difficulty cannot be very great. The mercurial disease, when merely local, will not return again without fresh mercury is given; and if it does then return, it will be only in the same spot. Therefore any symptoms now appearing must be considered as depending upon another cause, and they most probably arise from the effects of the vene-

real virus, if that can be supposed to be still in the habit; and the new appearances are similar to its operation. Nor are we to look on every slight exco-riation about the penis, or the prepuce, which may chance to remain or to appear at the termination of an effective course of mercury, as a sign of the mercurial or of the venereal disease.

When the disease has been general, it is very apt to return again from slight causes; and where repeated long courses of mercury have been exhibited, we may, without any great hazard, conclude that symptoms, which now appear, are of the mercurial kind, and which no apparent amendment from mercury, which may be given at this time, should induce us to suppose the contrary.*

The appearance of a bubo, well-marked venereal blotches with pains in the bones, or sores and ulcers about the body, where the mercurial disease had not previously been seen, should strongly persuade the practitioner that the disease must be venereal. But when the new disease is a return of ulceration in the

* I have several times seen this circumstance of mercury apparently doing good, when administered by mistake on the re-appearance of the mercurial disease; but the amendment is of very short duration, and the complaint becomes constantly more obstinate in consequence of it. I should here suppose that the mercury, though given in the very disease which it has occasioned, yet, from having been discontinued for some time before, it does not excite any additional morbid irritation; nevertheless this apparent amendment, depending undoubtedly on other causes than mercury, is a circumstance, which will occasion much perplexity to the practitioner, and induce him to suppose the case venereal, if he be not well apprized of its deceitfulness.

throat, after a mercurial attack there, the sore is most likely to be a return of this new disease. The same conclusion may be made, if it be a return of ulceration in the groin, or upon the penis and prepuce, which had been the seat of the mercurial disease some short time before. However, in these cases, we must consider what was originally the extent of the venereal infection, and weigh well the several circumstances of the previous treatment, the quantity and the quality of the mercury, and the length of time it had been given, and whether it had ever been repeated after the first course. We should also take this fact with us in our determination, that the symptoms of the lues venerea are more fixed and steady than those of the mercurial disease: the pains in this latter complaint are less confined to particular parts and less fixed, its ulcers often mend, or move their seat into the neighbouring parts without any apparent cause.

However, in slighter cases of the general mercurial disease, when new symptoms appear after cure, the only way not to confound the complaints, if we cannot satisfactorily make up our minds, is, to let the doubtful symptoms take their course for some time, at least not to treat them by mercury. The patient will suffer nothing by this delay. In two or three weeks, and often in less time, the matter will be decided: if the symptoms be venereal, they will become stronger marked, and accompanied with fresh ones, so that the practitioner of real discernment cannot be deceived; and then mercury may be very properly given with a certainty of producing a cure. If the

symptoms prove mercurial, and the body be kept from irritation, particularly the parts affected, they will grow better, especially if we use the remedies for this disease. This could not happen if the case were venereal. We shall, by acting in this manner, save our patient from a disagreeable course of mercury, and also from a disease which might, by our precipitancy, become incurable.

I have been reasoning, it must be remembered, on the re-appearance of symptoms; upon the presumption that both the venereal and the mercurial complaints had been before present in the system; and that we have been fully on our guard that the new disease was not a fresh infection, for otherwise no difficulty in the case can exist.

SECTION II.

The exciting causes of the Mercurial Disease.

I PROPOSE now to consider those causes which favour this morbid action of mercury, and which I shall divide into two classes: the first consists of all those causes which depend upon the constitution and state of the system at the time when the disease commences; the second consists of those causes which may be called accidental, and which act from without.

It is most probable that many of the circumstances which favour this complaint are still unknown; and I must here remark, that the disease more commonly arises from a combination of several of these causes, than from any single one.

The most favourable constitution for the salutary action of mercury we must suppose to be that, in which there is no idiosyncrasy with respect to this remedy, in which there is no hereditary humour or disease about the patient, and in which the general health is preserved by temperance and regularity. If mercury be exhibited in such a habit, with proper precautions, the most beneficial effects may be expected from it, and the least interruption will be experienced in its proper action.

The first constitutional cause unfavourable to the proper action of mercury, of which I shall take notice, is this, namely, the peculiar idiosyncrasy discoverable in some habits respecting this mineral,

where the smallest quantity cannot be given without producing very violent effects, acting almost like a poison, and occasioning considerable fever, restlessness, and other symptoms. Happily these constitutions occur but seldom; and when they do, this disposition does not last many days, if we lessen the general irritability, prudently abstain from giving the mercury in large quantities or in its saline forms, and confine its use merely to gentle frictions.

Habits, which are extremely weak and reduced, run very readily into diseased action, and we shall find that these constitutions, if they be not first mended, favour this morbid action of mercury.

Plethoric habits, with an inflammatory diathesis kept up by intemperance in eating and drinking, very much favour this disease, if an abstemious regimen, a regularity in living, and some evacuations do not precede the exhibition of the mercury, and if great care and attention be not observed during the whole course.

Those habits favour this complaint which have any vice or peculiar humour about them, whether they are scrofulous or cancerous, or what is usually considered as scorbutic, and in which wounds and sores heal with difficulty, as these humours occasion an increased state of irritability in the constitution.

In the third volume of the *Medical Observations and Inquiries*, page 244, Dr. Silvester, in a paper on the mischiefs occasioned by the sudden stopping of salivations, uses these words: "I have very often observed, (says he) that those people who inhabit low marshy places, or who have been troubled

with the marine scurvy, are very easily thrown into a salivation; that in general they bear none but the smallest doses of the gentlest mercurials; and that in case of venereal complaints, to assist the mercury, we should put them under a course of a decoction of the woods." This proves that debility, with any peculiar irritation about the habit, favours the introduction of the mercurial disease into the constitution. We must not, however imagine that scurvy is produced by mercury, or that scurvy can prevent the venereal virus being removed by it, when it is given with proper care.

Among the exciting causes of this disease, we must reckon that kind of constitution which resists the action of mercury on the secretions, particularly those of the salivary glands; or rather, in which mercury acts on the mouth, skin, and kidneys, in checking, instead of increasing their secretions. This kind of habit is of all others the most unfriendly to mercury, and the soonest takes on the specific disease of this mineral: and it cannot too strongly engage our attention, as much of the knowledge of this disease, of its phænomena, and of its treatment depends upon it. Indeed the specific diseased action of mercury is always connected with this check on the secretions. For, though the venereal virus is not destroyed merely by evacuations, we know that except the secretions are in some measure excited by mercury, the virus will not be removed; and we find that in all cases mercury is the least liable to run into its morbid action, when the secretions are increased, especially those

of the mouth and of the skin. This state prevents that peculiar irritability of habit taking place, which immediately leads to this disease; and we shall invariably find that, in all those cases in which mercury appears to act with little effect, perhaps with none at all, upon the venereal virus, the secretions of the mouth, of the skin, and of the kidneys, are checked or unaffected by it. But if by any alteration in the habit these secretions become much increased, though no additional quantity of mercury be given, if the mouth in particular should inflame and a slight ptyalism commence, all the venereal symptoms, which were before stationary, will heal rapidly.

I have seen this circumstance so often happen, that whenever I find that mercury has lost its effects on the secretions, and the symptoms of the lues venerea do not disappear so quickly as they should do, I confine my patient to the house and to his flannels. In this manner, perhaps, from a few frictions of mercurial ointment after a few days rest, a ptyalism takes place; and then all the previous irritability in the habit disappears, the symptoms of the lues venerea vanish, and little more mercury is required, as the patient now apparently experiences benefit from the quantity he had taken in the first instance, which before was more inclined to produce a diseased action than a salutary one.

It appears then that, when the action of mercury is not on the secretions, it is not so universal as it ought to be; but probably is more violent where it is operating, and is disposed at this period to excite

very quickly its specific diseased action. A gentle increase in the quantity of the saliva, with a tenderness of the mouth and fauces, keeps under the inordinate action of mercury; and this is probably the reason why the alterative mode of cure in the lues venerea is neither so quick nor so effective as the cure by a gentle ptyalism under confinement. In the former, the secretions are never so free as they are under the latter mode of treatment. Very violent secretions either by the mouth, by the skin, by the kidneys, or by the bowels, are of no service in the cure of the lues venerea, but, on the contrary, they carry off the effects of the mercury too quickly; for it is not evacuation which is wanted, but an universal action moderated by a certain degree of freedom in the agency of these organs.

There are also local constitutional causes which favour the mercurial disease. All those parts, which possess much sensibility and irritability, take on the mercurial ulceration the soonest, particularly if they are at first the seat of the venereal ulceration, such as the glans penis, the prepuce, the throat, the lips, the lining of the nose, the verge of the anus, &c. The venereal virus sometimes, from the same cause, attacks these parts in preference to many others of a less irritable structure.

I shall now advert to the external exciting causes of this disease, and first to those causes which produce a general effect.

At all times we know that the body is considerably influenced by the state of the atmosphere and by the vicissitudes of the weather; but, as under the exhi-

bition of mercury a greater state of irritability prevails than at any other time, we may well imagine that cold air and easterly winds and damp will considerably check the secretions, particularly those of the mouth and of the skin; and from what I have just advanced on this subject, it may be easily supposed, that exposure to the weather may occasionally prove a very powerful exciting cause of the mercurial disease. Patients, therefore, who take mercury and expose themselves to the air, &c. during its operation, do not receive the full benefit of the medicine, and are constantly in danger of entirely losing its anti-venereal effect. It is for this reason that, in the alterative mode of administering mercury, a longer course and a larger quantity are requisite for the cure of the lues venerea.

However, as it is not possible in every slight case of the lues venerea to confine the patient, it is necessary to state what weather is most hazardous. North-easterly winds are peculiarly pernicious, particularly in winter and spring, and sudden changes of the weather to cold, snow, and wet, are to be avoided. Mild summer weather with a south-west wind is the least dangerous. But it should always be laid down as a rule, that the patient should be directed to confine himself under mercury, when the case is at all inveterate, or when the medicine loses the power of affecting the mouth and of removing the venereal symptoms; as the atmosphere, by causing a check on the secretions, is then acting as an indirect exciting cause of the mercurial disease.

It may not now be improper to consider how far the present manner of exhibiting mercury, and its various preparations, may excite this disease. Mercury simply divided by trituration in the form of an ointment, or of a pill, I consider as the preparation least likely to produce the mercurial disease. But even this preparation if exhibited in very large quantities, or if continued for too long a period, will occasion it in certain constitutions; for, if the mercurial frictions are too considerable and too quickly followed up, the patient is either thrown into a speedy and an excessive salivation, or a general state of mercurial irritation takes place with fever and restlessness which with other symptoms already mentioned, constitutes this disease. I have often seen patients with ulcers in their throats, and with pains in their bones, and much reduced in flesh, who have said, that these symptoms did not constitute any part of their original complaint, but commenced after they had been rubbing in mercurial ointment for many weeks. By directing these patients to discontinue their frictions, they have always recovered in a short time. Mercury therefore, either given too largely, or continued for too long a time, even though administered in its best form, may occasion its specific diseased action.

I consider all the saline preparations of mercury, and its calces, as powerful exciting causes of this disease; and the more active these saline preparations are, the more likely they are to be mischievous in this way. And notwithstanding these preparations are admitted in the cure of the lues venerea by every author on this subject, yet I most strongly recommend

their being laid aside except under some very particular circumstances, which I shall hereafter mention. They possess no advantage over mercury which is simply prepared by trituration, and, besides their being objectionable on the accounts just mentioned, they are pernicious by their violent operation on the constitution and on the intestinal canal. They are also very justly suspected of not completely removing the venereal virus when given alone, which, as I have strong reasons to suspect, arises from their activity in so soon inducing the mercurial irritation. The *hydrargyrus muriatus** in solution was formerly much commended for the cure of the lues venerea, and we find several papers on its use in the second volume of the *Medical Observations and Inquiries*; but we also learn that, notwithstanding the commendations bestowed upon it in that volume, the disease in some of these cases returned again. This is, indeed, imputed to its not having been given in sufficient doses, though, how the quantity could have been increased, I do not know, as we shall find that the doses were as large as the patients could take. It is confessed, that it very seldom produces any effect upon the mouth, and it was most useful when it acted on the skin and on the kidneys; which proves how necessary it is that the secretions should be increased under the regular operation of mercury. At the same time it also shews, that the *hydrargyrus muriaticus* is a preparation which does not affect the mouth, and that a gentle ptyalism is the most salu-

* The *hydrargyrus muriatus* is now named, in the new London Pharmacopœia of 1809, *hydrargyri oxymurias*.

tary of all the secretions which can take place under a mercurial course.

Mr. John Hunter, in page 351 of his work on the Venereal Disease, when he is treating of the corrosive sublimate, observes, that it is a salt capable of stimulating violently; and he adds this remark; "However, from experience, it (*i. e.* the corrosive sublimate) appears not to have sufficient powers over the venereal irritation; as in recent cases it only removes the visible local effects, without entirely destroying the venereal action; for many more have been found to relapse after having taken this preparation, than from many of the others; which is owing to its passing very readily off by the skin. Besides it disagrees much more with the stomach and intestines than any of the other preparations." This opinion given by Mr. Hunter, namely, that corrosive sublimate, from its passing off too readily by the skin, does not effectually cure the lues venerea, I cannot imagine to be well founded, as the effect of this medicine upon the skin is not very remarkable, and is in no respect equal to the operation of the mercurial ointment, when used under confinement. The mouth, we know, is seldom or ever affected by this solution if the patient exposes himself to the weather.

From my own experience I am fully convinced, that in many constitutions, and in those where the lues venerea is at all inveterate, the saline preparations of mercury are insufficient to produce a cure. They fail either by being given in such small doses, that an action, sufficiently powerful to remove the

virus, does not take place; or, if they are given in larger doses, their defective action on the secretions of the skin and of the mouth, and their partial violent operation on the rest of the system, soon occasion this specific mercurial irritation, and we are obliged to complete the cure by mercurial frictions at some after period. If, indeed, we inquire into the previous treatment of most inveterate mercurial cases, we shall find that saline mercurials have been employed at some period of the disease, either internally or externally, and which will be discovered to have contributed considerably to the malignancy of the disorder.

In defence of these preparations it may, perhaps, be urged in reply, that the venereal virus is often completely removed by them, without any injury to the constitution. This amounts to no more than saying, that there are certain constitutions, which can resist the bad effects of certain poisons at certain times. We know that there are some people who are little or not at all disposed to take on the specific mercurial irritation; but it is impossible to distinguish these habits previous to the use of mercury. Indeed, it may so happen, that a patient's constitution may be able to resist the irritation at one period and not at another, without our being able precisely to discern this difference of susceptibility. However, in general, we shall find few habits which may not take on this disease, if the causes producing it are powerfully applied.

It is also urged in vindication of the use of these (I mean the saline) preparations, that we can some-

times cure the complaint with one kind of mercurial, when we cannot with another. This, I grant, may be true in this way, that we may endeavour to cure a patient by a saline preparation, and find ourselves foiled, and be obliged to have recourse to mercury a second time in a more simple form to complete the business. But I strongly suspect it has never happened, when mercurial unction and the *pilulæ hydrargyri* have failed, that the patient has been cured by simply changing it to a saline form. We may sometimes, in a second exhibition of mercury, effect that cure, which we in vain attempted by a previous course, merely by allowing a certain interval of rest from the use of all kinds of mercurials, for the purpose of giving the constitution time to recover itself from the diseased irritation into which it was rapidly advancing. But the same simple preparation of the mineral will answer again by only changing it perhaps from an internal to an external application, or by joining it with a decoction of the *sarsaparilla*.

It must be admitted, that few modern practitioners, though they allow of saline mercurials being employed in the cure of the *lues venerea*, nevertheless recommend mild ones in preference; it would, however, be happy for mankind if they were excluded altogether in this disease.

Dr. Swediaur, in his *Observations on Venereal Complaints*, page 251, says, "We ought never to give acrid preparations of mercury, when we can effect a cure with mild ones."

Mr. John Hunter, page 352, observes, "That we should naturally suppose that the simplest prepara-

tions of mercury are the best ;” and he prefers the ointment.

The late Mr. John Howard in his *Practical Observations on the Venereal Disease*, page 4, vol. ii. remarks that, “Inunction is the most simple, and at the same time the most certain, method of employing mercury.”

The topical application of mercurials, and of other stimulants, to venereal sores, are strong exciting causes of the local mercurial disease, and unfortunately their use is admitted and recommended in almost every book which has been written on this disease. We should recollect, that in every venereal ulcer there are already two causes of irritation present, one of them is the common inflammatory stimulus consequent from a solution of continuity in the solids ; the other cause, is the stimulus of the venereal virus : and if the sores are situated on some particular parts, as for instance on the glans penis, the prepuce, &c. we must take into the account the peculiar irritability of these parts. If the patient be under a mercurial course, this will also contribute to the local irritability of any sore or sores present at the time. From these circumstances we may judge how easily additional local applications of mercurials to venereal wounds may induce the mercurial disease.

And this also is the cause, why mercury given in the lues venerea is often obliged to be discontinued, before the ulcers attending the complaint are healed, particularly in the case of the large chancres ; but that, after the mercury has been discontinued a few

weeks, they heal gradually, and never require more of the medicine. Now it is impossible that this could be the case, if these sores had the least of a venereal taint where the mercury was left off; but in fact they get well in consequence of their depending merely on a mercurial irritation which daily wears off.

In very irritable constitutions, where much mercury has been used, the venereal ulcers will change to a mercurial state from this cause alone; for the inflammation common to all wounds, the specific stimulus there present, and the general mercurial stimulus together, are conjointly sufficient to bring on a local state of the mercurial disease, without the assistance of the fourth cause, namely, the topical application of a mercurial; and the habit may nevertheless be free from a general state of the disease. But we are always to recollect that the local disease, when it arrives at a certain height, will probably soon occasion the irritation to become general.

The more active the preparations of mercury when locally applied to a venereal sore, the more certainty there is of doing mischief. It is extraordinary that they who have objected to their use, do so chiefly upon the principle of their being repellents, supposing that they drive the venereal virus into the habit. This, in my opinion, is a very groundless idea. They sometimes indeed apparently seem to promote the cure of venereal ulcers; but this can only happen in those cases in which there is very little general or local irritation. And here I think it would be more reason-

able to impute the amendment to the effects of the mercury, generally exhibited, acting on the system at large, than to suppose that the ulcers heal by the mercurial topics; for we cannot imagine for a moment, that topical applications correct the virus which is generally circulating.

We find authors recommending preparations of copper, of arsenic, of vitriols, of spirits, and of alkali, and a variety of stimulating ointments and powders to venereal sores. Upon what principle they are recommended I cannot tell; for while these sores remain venereal, they are not likely to heal; but, when the virus is corrected, they will surely get well by lenient gentle means as easily as any other common sore or wound. The irritation which is occasioned by these applications, must be very often highly detrimental, for the sores, to which they are applied, will consequently more readily take on the mercurial irritation from the mercurial course. It is a much safer practice, and a more successful one, to treat all venereal sores with the mildest applications.

The last exciting cause of the mercurial ulcer, which I shall now mention, is the use of the knife or of the caustic, during a mercurial course, to wounds made or enlarged at this time; for the great additional irritation, which the operation must produce, disposes such wounds to take on easily the mercurial disease.

I have seen a venereal bubo become highly mercurial merely by opening a sinus in it imprudently, while it was under the influence of a mercurial course. We should never begin upon mercury im-

mediately after an operation, but wait till all the additional inflammation, unavoidable from the operation, has subsided, and till the wound has either healed or only remains open from the action of the venereal virus. Dr. Swediaur gives us this excellent caution in respect to the opening of buboes. Above all things we should be careful not to apply mercury to a wound made by an instrument, as the mischievous consequences of such a practice have before been pointed out, and they are well illustrated in the first case in this work.

I have now finished what I wished to observe upon the exciting causes of the mercurial disease. They are not all of an extent equally hurtful. The want of freedom in the secretions, the effects of cold and wet under a mercurial course, the pernicious consequences of saline mercurials, and the mischiefs resulting from topical mercurials, are the chief exciting causes which I would particularly recommend to the attention of practitioners, as having been hitherto the least noticed.

SECTION III.

The Mercurial Bubo.

IT is now proper to enter on a separate consideration of the principal mercurial symptoms. The first, of which I propose to treat, is the mercurial bubo. We are very truly informed by authors that buboes may arise from a variety of causes; and we therefore have descriptions of the sympathetic, the venereal, the indolent serofulous, and of the erysipelatous buboes, and in Astruc (English edition, 4to. page 347, vol. i.) we find a very clear account of the cancerous bubo, entirely independent of mercury, and first commencing in a true schirrous gland. With all these distinctions it is highly necessary that practitioners should be well acquainted. But the bubo now to be considered is the mercurial, which has generally been called the phagedenic bubo. Yet authors do not mean to insinuate that it is uniformly owing to the bad effects of mercury, or to any other particular cause, but merely that it is a malignant ulcerative bubo, difficult of cure, and sometimes incurable.

The indolent or serofulous bubo is very often mistaken for the venereal bubo, and when it is improperly treated by mercury at last it becomes mercurial. From this error much confusion in the treatment of buboes has taken place. This indolent bubo, in its sluggish state of inflammation, bears mercury very ill. It arises often from sympathy with the virulent

gonorrhœa ; and at other times a fever terminates in one of these affections. A severe cold, indeed, has also produced this bubo, and very often it has appeared without our being able to assign any cause except perhaps, a general indisposition in the habit, or an accidental pressure on the inguinal glands ; but their situation in the groin, and perhaps their critical appearance after some suspected connection, has too often occasioned their being considered as venereal, though no proof of an absorption could be traced nor any one venereal symptom be discerned. In general we shall find that patients afflicted with these buboes are of a scrofulous disposition.*

The mercurial bubo commences in an enlargement of several of the small glands of the groin, with pain, and with an obscure kind of inflammation ; and sometimes both groins are affected. This

* It often happens that a bubo begins in the groin from the infection being received by a slight excoriation only, which soon gets well and perhaps is overlooked, and the patient is at the same time affected with a violent cold. Mercury, however, is given ; but the habit being unfavourable for it, the mercurial disease takes place, and the bubo gets much worse. The mercury is discontinued ; and, as its morbid irritation subsides, the bubo begins to get much better ; at last, the irritation being entirely gone, the bubo remains some little time stationary, then begins to increase, the venereal action again taking place, and a copper colour spreads over the whole tumour and to some extent beyond it. Now mercury being given once more, as the mouth becomes affected, the tumour and colour gradually disappear. What I would wish to be attended to in this case, is the copper colour which takes place when these buboes become again venereal : for this colour should be considered as a true pathognomonic sign in these cases of the re-commencement of the venereal action.

enlargement often becomes very considerable, and not at all disposed to disperse by any remedies applied, or to advance much to suppuration. The suppuration, when it does take place, is generally confined to one part of the tumour, and the discharge is small in quantity, and is not attended with any considerable reduction in the size or hardness of the part; neither the pain, nor the inflammation lessens, but the whole tumour takes on a deep red colour. If the bubo, through mistake, is now treated by mercurial friction, all the symptoms become much worse; the patient is teased with a fever, the opening in the bubo ulcerates, and the more the mercury is pushed, the more malignant will the disease become. If we make use of any mercurial washes, we shall contribute very much to the mischief; but if we desist from the use of mercurials, the violence of the disease will gradually abate, and the wound will heal; or, if it were originally from a real scrofulous action, we shall at last find only the slow scrofulous sore remaining.

This bubo occurs much oftener than is generally suspected, and it should make us very cautious in pronouncing swellings in the inguinal glands to be venereal, when we have no positive proof of a venereal absorption. It is much more prudent in doubtful cases to withhold the use of mercury until we are certain as to the true nature of the disease, treating the tumour with lenient applications to reduce the inflammation, or to bring it into a proper state of suppuration, if its repulsion is impossible.

But to return to the mercurial bubo. This either commences in a violent slough of the integuments and substance of the glands terminating in a kind of phagedenic ulceration; or the ulcerative process commences without any disposition to sloughing. The size and malignancy of this bubo are different in different cases; sometimes it does not exceed the bigness of a walnut and is very superficial; at other times it is of very considerable dimensions and of a very irregular form, extending along the groin up the abdomen and down the scrotum to the upper part of the thigh. The discharge is very great and sometimes ichorous, fretting and excoriating the surrounding integuments; sometimes however it appears like good pus, and the ulceration will at different periods, if it be of long standing, look as if it were disposed to heal, but on the approach of bad weather, or from indisposition and other causes, it will again spread and grow worse. In some cases the discharge and ulceration undermine the integuments surrounding the gland, forming sinuses and eating the parts into an honey-comb appearance; and the places which do heal, appear stretched, inflamed, and discoloured. This bubo in general is very painful, the surrounding inflammation being of a very angry complexion, and the disease itself tedious and distressing, the patient suffering considerably in his general health.

Now we shall never find, that a bubo of this malignancy arises from the mere effects of the venereal virus; and it is extraordinary (as this case never occurs but where much mercury has been used, and

perhaps even local applications of it to the wound) that it should be ever imputed to any other cause than that of mercury. Yet it but too often happens that the malignancy is supposed to be still owing to the venereal virus, and the mercury is in consequence persisted in with more vigour, or, if discontinued, it is renewed again before the mercurial irritation is removed.

We should therefore make it a rule, whenever we administer mercury in cases of buboes, never to persist in its use when we find the sores spread and become worse; and, if the healing process ever becomes stationary, it is proper to omit the mercury for some short time, that the true anti-venereal action may be allowed to return; unless we suppose that this want of disposition in the healing depends upon a deficient quantity of mercury; but in this case the appearance of the wound will be very different from what we find it to be under the mercurial irritation, as I have before described. In pronouncing a bubo to be mercurial, we should always first take into consideration the manner in which it has been treated; as for instance; whether the case was really venereal in the first instance, and then endeavour to ascertain how far any of the remote causes of this complaint have been applied; and when we are satisfied that it is so, we should endeavour also to make the patient himself sensible of the true nature of his disorder, that he may not be under any apprehensions from discontinuing his mercury, nor make any objection to its being renewed at a future period, if there should be occasion for it. The want of this confidence has of-

ten been fatal to the patient, and unfortunate to the practitioner.

This bubo may arise from local bad treatment, or from a general effect of the mercurial irritation, existing with a general state of this disease; but though it should be only local, originating perhaps from topical mercurial escharotics, or from the use of the knife or of the caustic during a mercurial course; yet, if the constitution be irritable, this local state of the disease will spread through the habit, and the patient will take on the general mercurial disease. He will become feverish and restless, he will soon lose his strength and appetite, and be subject to night sweats and pains in his bones with hectic symptoms, and his pulse will be always quick and weak; though this same circumstance may occur from any mercurial ulceration of equal extent.

If the change from venereal to mercurial in a bubo should be preceded by a very efficient course of mercury which had removed all the other venereal symptoms, and if the mouth should have been sore for some time, we have then reason to suspect the venereal virus was first removed: but the event will easily decide this fact. For should the venereal virus be still present, as the mercurial irritation ceases, the venereal will be renewed with such genuine marks of the disease, as pains in the bones, blotches, and other symptoms, that an experienced practitioner cannot be deceived.

This bubo has not always the same degree of malignancy, nor is the mercurial irritation, which accompanies it, always equally inveterate. There have

been cases of buboes, improperly treated by mercury when under a caustic in unfavourable constitutions, which have mortified through their whole substance, and the patients have died.

To form any tolerable prognostic as to the duration of the disease when it does take place, we must first consider, if it depends upon a general or on a local state of the irritation; if the patient be in good or bad health; and whether the constitution be naturally very irritable. The extent, the duration, and the complexion of the ulcer must likewise be taken into the account, for the disease at the best is a very obstinate one; but where the case is very recent, and the mercury has only received a slight check in its anti-venereal powers, we may expect that a few weeks will remove the complaint; though there are cases which continue for years, especially if the disease be not well understood, and mercury be given again before the diseased irritation is perfectly removed.

We know that no sore is more likely to take on this disease than an ulcerated bubo, nor any one more obstinate when it has taken it on, because there are few ulcerations in the lues venerea in glandular parts of the same extent; and every sore, as I have before stated, is a remote exciting cause of the mercurial irritation from its affording a favourable surface under a state of previous irritation.

As buboes are so liable, even under the best treatment, to become mercurial, it is most adviseable at all times to prevent their coming to suppuration, if possible; for the objections which have been made to repelling them are of no weight.

But if a bubo must come to suppuration, we should then pursue that plan which will best prevent its taking on the mercurial irritation. We should keep the patient on an abstemious diet, use such evacuations as his constitution will admit of, and direct him to use little or no exercise. The mercury may be continued, and with advantage, to the time of the bubo being opened; but when it is first opened, and especially if by the knife or by the caustic, it must be then discontinued until all the inflammatory effects of the operation are over, until a mild and good digestion on the lips of the wound has taken place, and the healing process has commenced, or that we find it, after a certain time, beginning to spread and ulcerate afresh from the progress of the venereal virus. Then, indeed, mercury may be given again, and without hazard, to the completion of the cure. The mercury, I have said, may be continued with advantage to the time when the bubo is opened; for the mercurial ulceration cannot take place while there is no external wound, and the more mercury we have given previous to this time, the less quantity will be required afterwards; and in proportion as the venereal action has been subdued, in that very same proportion will be the disposition on the bubo, when opened, to heal readily.

A bubo, when opened, should be locally treated with the mildest applications: a common bread and milk poultice is sufficient, or dressings of the spermaceti ointment are all which it requires. It is the dressing of these buboes with mercurial ointment, or with solutions of this mineral in a saline form, which occa-

sions them to be so frequently met with. We must particularly remember, that mercurial dressings are to be most avoided.

If buboes were always treated in this lenient manner, we should seldom see what is called the phagedenic bubo, which I consider as a proof, that this has its origin in the mercurial morbid irritation. But if mercurial frictions be employed in a recently opened bubo, and applications of this kind be locally applied, we may then be certain that this disease will occur from time to time.

Dr. Swediaur (in his *Practical Observations on the Venereal Disease*) has thrown out many very good cautions respecting the use of mercury in violent ulcerated buboes, and has subjoined some cases of this pernicious effect of mercury, as in page 153, where he is speaking of this exulcerated bubo. "With regard to topical applications of mercury (says Dr. Swediaur) in those cases we should be highly cautious, lest we bring on a complaint, of which I have seen several melancholy instances." Again; "But if under the administration of our medicines, whatever they may be, the abscess instead of healing, either remains in the same state, or assumes a relaxed and flabby appearance, and the discharge grows copious, thin, and ichorous, and, at the same time, the health of the patient, instead of growing better, gradually grows worse and worse; a different treatment will be necessary. If mercury has been administered and has produced some sensible effects in the mass, we should not obstinately insist on ascribing the present symptoms

to the inefficacy of the mercurial preparation we have made use of, and consequently have recourse to another: we rather ought to take the hint given by nature, and not persist any longer in the use of a remedy from which no good effect had followed: for mercury is a poison for those patients, and so is likewise the hospital air."

He also cautions us against giving mercury in a very inflamed state of the bubo, and thinks that after a bubo is opened, that mercury should never be given till the sores put on a true venereal appearance, and will not heal any more.

Mr. John Howard (in the second volume, page 173, of his *Practical Observations on the Venereal Disease*) observes, that "When an opening has been once made *into a bubo*, by art or nature, nothing of the irritating kind must be applied either to the sore or in its immediate vicinity. There must be no poking after what are called sinuses, but irritation must be kept off; and the best dressing will be a soft poultice *ex farina lini*."

He speaks of, what he calls, the true phagedenic bubo as arising partly from the venereal virus, and partly from the effects of mercury too forcibly or too long continued; and he looks upon the venereal virus as an occasional remote cause, favouring the morbid action of mercury, by rendering the body more irritable. This I can admit; but, as I have before remarked, the mercurial irritation only can be considered as the proximate cause, and that mercury can of itself produce the disease.

The mercurial bubo, though generally slow in its progress, is sometimes however very rapid and destructive, especially if it commences in a slough or mortification: and the patient is soon destroyed by it. The constitution in these fatal cases is uncommonly irritable with respect to mercury, and the previous treatment will be found to have been very erroneous. A very dreadful case of this kind is recorded by Dr. Donald Munro in the second volume of the Medical Transactions, page 337; it is to the following effect.

The ulceration first began on the penis from a chancre, and spread from thence by two ulcers to the pubis, laying the spermatic chord, of each side, bare, as if it had been dissected from the abdominal rings to the testicles. The two ulcers then met on the abdomen, spreading over the lower part of the belly, and at last the left epigastric artery was eaten through, and the patient died from the hæmorrhage. This patient's deplorable case is related to have been produced by the use of rough mercurial purgatives and escharotics applied for six weeks to the chancres, previous to Dr. Munro's seeing him; and he calls it a case of eating cancer. Its malignancy no doubt was as great, and its progress perhaps quicker, than in the worst kind of cancer; but if we consider cancer and the mercurial disease as two distinct specific complaints, and that mercury does not produce real cancer, though it may aggravate it, then this disease was not cancer, but it was the disease of the mercurial irritation in an extraordinary state of malignancy. This complaint according to the account given to us, was in the first instance certainly no cancer; it

was a case of common gonorrhœa with chancres, and improperly treated by rough mercurial purgatives and topical escharotics, which were most probably, though they were not mentioned as such, mercurial ones. It was therefore this treatment, for six weeks continuance, which brought on this excessive degree of mercurial malignancy. The violence of this treatment had rendered the constitution so generally irritable, that we learn that the patient could not afterwards bear the smallest quantity of mercury, not even by friction, without his bowels becoming immediately disordered. This is surely not the history of a cancerous complaint; for neither the general nor the local symptoms bear the resemblance. The mere circumstance of a malignant rapid ulceration destroying a patient is not all which is necessary for our pronouncing a case to be cancerous.

Nor can I find reason to assent to the opinion of Dr. Joseph Adams, in his *Observations on Morbid Poisons*, second edition, 4to. page 31 and 32. Dr. Adams appears to doubt this case being either venereal or cancerous, or to have arisen from ill treatment; but rather supposes it to be that kind of specific disease, which, he says, is described by Celsus, and called a phagedenic ulcer. What doubts can we entertain of its having been first venereal, when we are expressly informed that the patient had both a gonorrhœa and chancres previous to his using any remedies? And surely six weeks of such treatment as was pursued in this case (and probably in a very unfavourable habit) was likely enough to produce the mischief which ensued, when we so well know that

venereal ulcers from irritating applications easily become more irritable; nay, that they often resist every effort to cure them, until a very opposite mode of treatment is pursued for a great length of time. This cure, indeed, is only peculiar in the rapidity of its progress, a circumstance which occasionally occurs in the mercurial disease.

To illustrate what has been already advanced, I will now consider some cases of malignant buboes, given by Mr. John Hunter in his treatise on the Venereal Disease, page 281; because I regard them as very fair instances of the true mercurial bubo; although Mr. Hunter does not give them exactly in this point of view.

The first of them is a case of the venereal bubo, for which mercury was administered two months; at the end of this period (there being no disposition in the sore to heal, or rather indeed the healing process had now ceased) it was discontinued for a whole month; the patient having, as Mr. Hunter thought, too much of the mercurial habit about him. Then the frictions were commenced again, with vigour and with apparent success, and they were continued for two months longer; the wound again ceased to heal, and bad effects began to appear. The frictions were now entirely given up, and the patient was sent into the country upon a milk diet; and bark, and mezereon, and sarsaparilla, and cicuta were prescribed, and at different times also seawater, and the application of a solution of the lunar caustic to the wound. At the end of another four months, the patient still being uncured, he was just on the

eve of commencing another course of mercury, when, luckily for him, the parts put on a healing appearance, and he finally recovered without it.

Mr. John Hunter concludes from this case, that in some instances the venereal virus may be gone, though the sore has no disposition to heal; and that in many of these cases the unhealthy disposition wears itself out. These conclusions I believe to be perfectly just; and it was only necessary to have added, what the unhealthy disposition in reality was, namely, the mercurial irritation, than which nothing could have been plainer. In this case, indeed, it appears that the bubo did not become malignant until after the mercury had been used for a considerable time, and in considerable quantities, and until the ulcer grew worse and worse as the mercury was further persisted in; but after it had been discontinued for four months, and the mercurial irritation having then ceased, the patient recovered.

But there is also one extraordinary circumstance which I would wish to notice in this case; I mean, that, on the second exhibition of the mercury, the sore mended very fast. This might be owing to the venereal virus having again come into action, as the mercurial irritation abated; but it also often happens, as I have before observed, that, during the continuance of the latter disease, mercury, when renewed, will at first occasion a fallacious kind of amendment. This circumstance cannot be well accounted for; yet it ought to be remembered that it is a deceitful appearance, that this apparent amendment will be soon lost, and the disease will become much more trouble-

some than before. Such appearances, however, occasion much fluctuation in opinion upon the true nature of these cases.

The second case, which Mr. John Hunter relates, is in page 282. It commenced after a severe gonorrhœa treated by the corrosive sublimate injection and a few mercurial pills; but as they did not produce a cure at the end of twelve days, they were discontinued, and a bubo began in each groin. Mercury was used in frictions to disperse them, but without effect, and therefore it was discontinued till they were opened; and then it was again used on the legs and thighs. The buboes now healed very fast, till they were about half-closed, when they became stationary. The frictions being still persisted in, the wound, from being stationary, began to inflame and swell, and fresh suppurations took place. The mercury was changed for poultices of sea-water, and decoctions of sarsaparilla, which for a few weeks produced a fresh amendment; when a second time it grew bad, and the venereal virus was now again suspected to be in action, and mercury for the third time was employed. In consequence of this the first sores healed, but the second suppurations would not heal, and the patient then quitted his mercurials, went into the country, and used sea-bathing, and finally recovered.

Mr. John Hunter says, that this case plainly shews that there was another disposition formed besides the venereal one, and which was put into action by the venereal poison; and he suspected that it was of

a scrofulous kind, though probably, as he says, not truly such.

That there was a new disposition formed in this case is unquestionable ; but this disposition was, as I should conceive, the very same as in the last case, namely, the mercurial irritation, and was produced by the same cause and in the same manner. It is also probable that these buboes were never venereal, for Mr. Hunter does not mention one symptom of the lues venerea preceding or accompanying them, nor was there any proof of a venereal absorption, therefore if this be true, here is a fair instance of the venereal virus having nothing to do in producing the new disease.

These buboes arose most likely from a sympathy with the irritated urethra, and might have something scrofulous about them ; but still we are not to suppose that it was a scrofulous action which was present, when they became so obstinate and malignant after the use of mercury ; for they then exactly resembled the spreading ulcers of the last case. The second suppuration, it is said, yielded at last to sea air and bathing at this period ; indeed, if the case had been originally scrofulous, the scrofulous action being now left free, as the mercurial action had ceased, it might readily be removed by sea water.

The third case, related by Mr. John Hunter in page 284, has nothing peculiar in it worth observing in this place, but from its being a very dreadful instance of the mercurial disease, going to an extent in malignancy far exceeding that which is ever seen in the venereal or in scrofulous ulcerations. Still,

from its being nearly healed at times, and from its having no fungous parts, I conceive that it was certainly not cancerous, but mercurial; for in truth the mercury was here given for a great length of time, and improperly repeated during the continuance of the ulceration. The patient, however, as it appears, fell a victim to an excessive dose of the cicuta. The complaint itself, indeed, most probably was incurable.

The following I consider as a very evident case of the indolent or serofulous bubo, unconnected with the venereal virus, and rendered mercurial by the use of improper mercurials, badly managed both generally and topically.

A patient had contracted a slight gonorrhœa, which was cured by some trifling injection. Soon after he discovered a swelling and an enlargement of the glands in one groin, but without any symptom which could lead to the suspicion of an absorption of venereal matter. Suspecting, however, that the bubo was venereal, he began to rub in mercurial ointment very freely, two drachms every night, and with this he took calomel pills; still following his occupation, and riding on horseback every day exposed to the cold and wet. The bubo would not disperse, nor did this great quantity of mercury at all affect his mouth. But when he found at last a pretty evident fluctuation in one part of the tumour, notwithstanding the uncommon irritation under which his constitution must have laboured from this quantity of mercury failing in its proper action on the secretions, a caustic was applied. The consequence was a violent

sloughing of the whole tumour. For this he took bark and opium, and lived on a milk diet. After the slough a phagedenic ulceration commenced in the part, and, as it was still suspected that the wound was venereal, he was desired to return to his calomel and frictions; and he also applied the sublimate wash. The ulceration now spread in all directions, down by the scrotum on the thigh and up towards the abdomen in a very irregular form, making several angles, but it was superficial, and appeared to be healing at times in some spots. Sarsaparilla and cicuta apparently produced much good, and also sea-bathing; but their effects were not lasting.

The case was declared to be mercurial, and the patient was forbidden ever to use mercury. It had now been open eighteen months. By leaving off wine, keeping to a very abstemious diet, and applying nothing which was irritating, the wound became nearly well, and his health was restored. Cicuta with sarsaparilla was also now given him.

Had the mercury in this case been much longer continued, the case would have proved fatal, from the great extent of the ulceration.

Those buboes, which commence with a violent sloughing of the parts, are generally the most obstinate to cure in the end. They will very often be found not to have been originally venereal, and they occur in constitutions on which mercury has acted as a poison almost from the first, as it never produced a proper action on the mouth or on the fauces.

SECTION IV.

The Mercurial Chancre.

I AM now led to the consideration of the mercurial chancre. I would however first premise a few words on the structure of the glans penis and of the prepuce. The cuticle covering the internal fold of the prepuce, and spreading over the glans penis, is thinner and more vascular, and has greater sensibility than the surface in general; and moreover, a constant secretion keeps these parts moist, and preserves their sensibility. It is partly from this cause that the glans penis so easily excoriates, and even ulcerates; for the natural secretion of these parts, when it is confined, or increased, or is more acrimonious than common, is alone sufficient to produce excoriation, &c. But in those persons who have lost the prepuce by circumcision, (as the Jews for instance) the glans penis, from its being constantly denuded, loses its exquisite sensibility and peculiar secretion; the cuticle becomes thicker, and the glans penis in that case differs not from the common integuments in its susceptibility for disease. Patients of this description are not so liable to contract chancres, or, if they do occur, they are not so irritable as in other people.

It is from these parts being the most exposed to the venereal virus, and from their possessing this peculiar irritability, that chancres so very often occur, and, if not speedily removed, are so liable to re-

sist the anti-venereal action of mercury. Authors have in general mentioned that chancres are tedious in healing, and they have observed that the mercury must sometimes be given up before these ulcerations can be cured. Mr. John Hunter says, "that chancres are commonly longer in healing than most of the local effects from the constitutional disease of the lues venerea;" and he adds, that "he suspects this to arise from something about them more than venereal." Mr. Benjamin Bell, in his Treatise on the Gonorrhœa and the Lues Venerea, (second vol. page 318) says; "I have known a person kept under the complete effect of mercury for many weeks, and the chancres, for which it was prescribed, remain nearly in the same state as at first." Still we find that mercurial washes and escharotics are recommended for curing these ulcers under this mode of treatment; yet we should suppose that very few of these cases could escape the mercurial irritation. The natural irritability of these parts, increased by the irritation of the venereal action, readily excites the chancres to take on the mercurial irritation, even by the general exhibition of the mercury; but still more so, if it is assisted by topical mercurials.

The first change which takes place, when chancres are becoming mercurial, is that of their losing the healing process, and, notwithstanding the mercury is continued, their remaining stationary for some time. Then the ulcerations begin to spread and look very angry; and this is often followed by new ulcerative spots breaking out round the old ones. Mr. John Hunter very properly remarks,

“ that he never considered these new ulcers as fresh chaneres.” If the disease is still aggravated by more mercury, these ulcerations will eat deep into the substance of the part; if on the glans penis, they often destroy a considerable portion of it, and the whole sore will become so exquisitely sensible as not even to bear the mildest application; and the disease, from being merely local, will, as I have described in the mercurial bubo, spread its irritation over the whole system, check the entire anti-venereal operation of the mercury, and produce other general symptoms of the mercurial disease, as ulcerations about the throat and fauces, or perhaps pains and nodes in the bones and the periosteum. Now it should be remarked, that all these symptoms, taking place during a course of mercury which had at first acted properly on the disease, must have their origin in the mercurial irritation, though perhaps they strongly resemble, both in their seat and in their appearance, the venereal action. Mr. Hunter (in page 241 of his *Treatise on the Venereal Disease*) gives a case of an ulcer appearing in the right tonsil during a course of mercury for the cure of a chanere.

By this I do not mean to question the fact, which many authors mention, of there being a species of very irritable malignant venereal chanere. But we can easily distinguish this from chaneres rendered irritable by mercury, by the circumstance of mercury not having been previously employed, and from this malignant chanere being curable by mercury while the others are only rendered worse from it.

This species of malignant chancre is indeed only occasionally seen, and may be traced up to some particular source.

Mr. Benjamin Bell (on the *Gonorrhœa Virulenta* and the *Lues Venerea*, vol. 2, page 22,) mentions an instance of a chancre of a very malignant nature, and he says; "About two years ago I met with more instances of this phagedenic chancre in the space of three or four months than I had seen for several years before; and in four of them the infection was traced to the same woman. The chancres in all of them appeared early, and made such rapid progress, that very troublesome hæmorrhages occurred in the space of three or four days from their first appearance."

An obstinacy in the healing of chancres may arise from an insufficient quantity of mercury, (as I before noticed in the mercurial bubo) and we must form our opinion upon the same observations: first, from our observing no malignancy in the ulcers, but rather by their being in a milder state than even at the commencement of the complaint; secondly, from their not being aggravated by increasing the quantity of the mercury given. We may also form some judgment from the quantity and quality of the mercury which has been administered, and from its effects on the fauces and on the secretions.

In general, chancres are but two or three in number, yet it will sometimes occur that the whole prepuce is beset with them, as well as the glans penis, and that they are attended with a considerable degree of pain; and the inflammation and thickening of

the parts will most probably have a tendency to phymosis. In this case, we have first to subdue, in some measure, the common inflammation by evacuations, &c. and even then we must expect that the venereal virus will for some short time be more active in its progress than our mercurials can be.

Another cause of malignancy in chaneres may be owing to the virus being received by a recent wound in the parts; and in this case the chaneres are apt to be more inveterate than when they occasion their own wound. This is a circumstance which I have before observed.

The mercurial irritation in the prepuce and glans penis is very often the occasion of that species of chanere, which is called by Mr. John Hunter the false chanere, and mentioned in his work page 248, where he observes, "that after common chaneres are healed, and the venereal virus is subdued, the cicatrices often ulcerate again, and break out in the form of chaneres. These ulcerations are most commonly seated in the spots before diseased; but very often new parts take on the complaint. Mr. Hunter further adds, "that mercurial dressings in one case increased them; and that sea-bathing and the *lixivium saponarium* cured others."

These false chaneres are sometimes very troublesome, and often occasion a suspicion in the patient that he is not perfectly cured of his first complaint: and I believe it has not unfrequently happened, that they have been treated with mercury as a fresh infection or as a return of the old disease.

These chancres are produced by a mercurial irritation upon these parts, and will be found the oftenest in those cases where topical mercurials have been employed; and they are much disposed to return, even after having been several times removed, from the irritation occasioning them still to exist, but perhaps only locally. They may be considered as the slightest species of the mercurial chancre, or rather of the mercurial excoriation, as they have more of this appearance.

The mercurial chancre may be considered under these several different states, which follow:

1st. As only a local affection of the mercury, the consequence of local bad treatment.

2dly. As connected with a general state of the mercurial disease.

3dly. As only a local affection in the first instance, but, from a continuance of bad treatment, the chancre itself, by its greatly increased irritability, at last producing a general state of the mercurial disease, in a manner I have before explained.

4thly. As connected with a general state of the mercurial disease, but with a suppressed action of the venereal virus.

And 5thly, As connected with a general state of the mercurial disease, but without any venereal taint in the habit, that taint having been first removed.

When the mercurial chancre is merely local, and not of any long duration, the ulcer, by a few days discontinuance of the mercury, and by lenient treatment, will be restored to its venereal state. But when the chancre is connected with a general mer.

curial state, we have then a very troublesome disease to contend with: we must quit the use of mercury perhaps for weeks, and use such means to remove the morbid irritation as will be hereafter mentioned.

Though we may often form a very tolerable conjecture, whether the mercurial disease commenced before or after the venereal virus was removed, yet it cannot always be certainly known till this latter disease is first cured. If the mercury had been given in a slight infection for four or five weeks, and had produced decided effects on the constitution without exciting the mercurial irritation till towards the close of the course, in that case it almost amounts to a certainty, that the venereal virus was first conquered, especially if the patient confined himself to the house.

In those cases in which the venereal action has only been suppressed, and is renewed again after the mercurial disease is removed, we must of course return to the use of mercury, but with a much greater degree of caution than before, from the great liability there is of the re-appearance of the mercurial irritation; because the disposition to this disease hangs about the patient a long time, as we learn from the readiness which there always is in mercurial sores to break out afresh.

The anti-venereal action of mercury may be lost in a mercurial chancre, and the venereal virus there alone suppressed, at the very time when the mercury is acting properly on the venereal virus in the rest of the system. I have myself seen many cases in which the mercury removed ulcers in the throat,

blotches on the skin, and pains in the bones, and restored the general health: yet from topical mercurials being applied to the chancres, as calomel and sublimate washes, the chancres have resisted all the effects of the mercury, nay, they have grown worse by it, till it was left off, and then they began to mend, but at a certain period fell again into a venereal action, that is, after the mercurial irritation had subsided, these effects arose not from the quantity of mercury given being insufficient to cure the disease, but from its action over the venereal action of the chancre having been lost, owing to the mercurial irritation, which took place there locally.

The following case may serve to explain the fact. A gentleman applied for advice under a lues venerea, the symptoms of which were two chancres on the prepuce, and another on the frænum, of pretty considerable extent, and of six weeks standing; he also complained of pains in his shin bones, and had copper-coloured blotches on his breast, with a loss of general health.

The chancres were kept clean by a calomel wash, and were afterwards dressed with red precipitate: they at first appeared to get better, but at last remained stationary through the whole course of the mercury. The mercurial ointment was employed with proper caution and perseverance, and the patient was confined to his room and flannels. Nothing could be more apparently successful than the effects of the mercury. A gentle ptyalism and a tenderness of the mouth were kept up for five weeks, all the symptoms of his infection disappeared but the chancres; and

his health and flesh were restored in a surprising degree. He continued the mercury for nearly seven weeks. The ulcers on the prepuce were now pronounced not to be venereal, and the patient used no more mercury. At the end of the first fortnight, these ulcers seemed to look better, and to close: but at the end of a month they again looked worse, and the patient complained of an uneasiness and swelling in his right groin. It was now thought prudent to give the mercury again; the ulcers soon lost their renewed venereal look, and the enlargement in the inguinal glands was dispersed. Still they were not healed at the end of a month after this second course of mercury, but were getting worse again and spreading: the mercury therefore was laid aside, and the patient left town; he took the sarsaparilla in powder and decoction with antimonial wine, kept the sores clean, and in a few weeks returned perfectly recovered.

I have selected this case from several others of a similar nature, as the most marked instance of the mercurial irritation locally suppressing the venereal action; for in this case, the removal of all the symptoms, but the chancres, was a fair proof, that the mercury had done its office generally. The second exhibition of it removed the venereal virus, which came into action from the chancres, after they had lost the mercurial action; but, after this, it again renewed the mercurial irritation, which was finally removed by quitting the mercury and using the sarsaparilla.

From this case we learn how necessary it is in every instance of the mercurial disease, whether

local or general, to suspend the use of mercury; for if the venereal action be but suppressed in one spot, yet from this one spot, after the mercurial irritation is removed, the disease will again begin and infect the whole habit.

I have spoken of the mercurial chancre as confined to the penis; but it may take place in every venereal chancre wherever situated, or on the mouth or on the lips; and in women, on the labia pudendi, the urethra, the nymphæ, the vagina, the nipples, &c.

The mode of treating chancres has in general been such as to favour the mercurial irritation; and too little attention has been paid to the irritable structure of the parts on which they are found, and to the other causes of irritation annexed to these ulcers; and yet topical mercurials, escharotics, and other stimulants, are recommended constantly for the cure of them.

It is surely more consistent to consider chancres as sores which have already too much irritability about them, and therefore as requiring the most lenient and antiphlogistic treatment, till such time as the venereal virus is subdued; when these sores, if they have not taken on the mercurial irritation, will be reduced to the state of simple wounds, and heal kindly without further assistance. By this treatment the mercury will be always found to act milder and with more certainty; for the benefit which we think we sometimes experience from an opposite plan, is, I am convinced, founded in a mistake. For when we imagine that the sores are

healing by our topical mercurials, they are in fact getting well from the general exhibition of the mercury; and all which happens in these cases is, that the patient's constitution happily resists the bad effects of these stimulants.

The lenient plan of treating chancres will be found the best preventative of a variety of troublesome symptoms, which arise from them at times, such as hæmorrhage, mortification, the growth of warts, the thickening and elongation of the prepuce, and the formation of that kind of tumour which grows from the end of the glans penis, and is described by Mr. John Hunter, in page 249 of his Treatise on the Venereal Disease; for a mercurial irritation is a very powerful exciter of these several circumstances.

The phymosis and the paraphymosis are often occasioned by the irritable state of chancres and excoriations about the glans penis and prepuce, and more especially when it is a mercurial irritation; for I have found that the greater the care which is taken to prevent this irritation, and to correct every possible cause of common irritation about chancres, the less seldom do these troublesome complaints occur; and when they do happen, a large bleeding from the arm, with a smart dose or two of physic, stops their progress and admits of mercury being given more immediately.

Therefore in the treatment of chancres two indications are pointed out, namely;

The first, to remove recent chancres as speedily as possible, before mercury can render them more irritable:

Or secondly, if they are so large and numerous that they cannot be cured, previous to the use of mercury, to remove all the remote causes of general or of local irritation.

The most speedy way to remove recent chaneres is certainly by the use of the lunar caustic, in the manner pointed out by Mr. John Hunter; and this can always be done when chaneres are not numerous, nor very large and inflamed, and especially if they are *very recent*. By this treatment we prevent a further absorption of the venereal virus, and we destroy a surface which at all times is liable to take on the mercurial irritation. Mr. Benjamin Bell (on the *Gonorrhœa Virulenta* and *Lues Venerea*, vol. ii. page 324) starts an objection to this practice: for he says, that out of twenty-four patients, to whom the caustic was so applied, twenty had buboes. Before him, indeed, the late Mr. John Howard, in his ingenious *Treatise on the Lues Venerea*, alludes also to this bad effect of the caustic. This objection, however, when well considered, does not appear to be a formidable one. For as these buboes scarcely ever come to inflammation, and still less seldom to suppuration, they rarely occasion more than a slight tumefaction with pain in some of the inguinal glands, and by rest and care are generally dispersed in a short time.

However, from the observations having been made, I have endeavoured to calculate the frequency of this symptom from the use of the caustic, in very recent chaneres, but I must confess that I have not found the occurrence of these buboes by any means so constant as Mr. Bell has done; but this probably may

be owing to our different modes of treating these patients.

Mr. Bell observes, that in general he can prevent their appearance by previously using mercury for a few days.

I have no doubt, that their origin entirely depends upon the additional irritation which the caustic occasions to the vessels communicating with the inguinal glands from the chaneres; I therefore commonly order the patient a brisk purge or two, and rest, if I suspect this event; and I wait till the ulcers are healed before I direct the use of any mercurial.

I frequently recommend the aqua lithargyri acetati,* diluted as a wash to the wound; and by this plan I have always found the caustic to be a safe and expeditious mode of treating *recent* chaneres, before I begin the mercury.

* The aqua lithargyri acetati is named in the New London Pharmacopœia, 1809, Liquor plumbi acetati.

SECTION V.

The Mercurial ulcerated Throat.

EVERY part of the fauces is subject to the mercurial ulceration. It is to be met with on the inside of the cheeks, in the gums, in the tonsil glands, on the uvula, the back part of the pharynx, and over the whole arch of the mouth. It either commences in ulcerations which were first venereal, or it takes place during a mercurial course, or at the termination of it, without any local venereal sore having discovered itself there. This mercurial ulceration is seldom or ever merely local; for venereal ulcers here are not usually treated with topical applications: it therefore depends upon a general state of the mercurial irritation, and mostly will be found a very troublesome and obstinate ulcer to cure, especially if the mercury has been several times repeated. For although it will very often appear to be removed, the slightest indisposition, or irregularity, or the approach of winter with rain and easterly winds, easily bring it back, the irritations still being present and unsubdued in the general habit. Neither the mercurial bubo, nor the chancre, are commonly so obstinate in healing as the ulcer in this part, nor so apt to return when healed.

The ulcer is sometimes so extremely formidable in its progress as to denude the vertebræ, to destroy the tonsil glands and uvula, and render the bones carious on the superior part of the palate. In this

state it has been mistaken for cancer, yet from this complaint in its worse state it differs considerably : for 1st, The ulceration is not by any means so painful as cancer ; and 2dly, It will even to the last heal in some parts and break out again in others. I have seen an ulcerated mercurial tonsil, in the most formidable state imaginable, suddenly heal without any apparent cause, and the disease commence on the opposite side. In other parts of the fauces I have observed the same circumstance happen ; and the ulceration from the back of the pharynx will remove to the superior part of the palate.

This moveable nature of the disease is peculiar to it ; and we never observe this to happen either in cancer or in the true venereal ulcer, we therefore may consider this as almost a pathognomonic sign of the mercurial ulceration in the throat.

When the ulcer is very malignant, the submaxillary glands are apt to swell and to become painful and inflamed, and the same may be said of the glands behind the ears ; but these swellings seldom or ever come to suppuration, as they will often continue indurated for a considerable length of time. Most probably in these cases there is some absorption of the acrid matter from the ulcer.

Some authors have had doubts, whether the tongue were ever the seat of the venereal ulcer. Of its being affected by the mercurial ulceration I have seen instances, and often a considerable excavation is made into that lateral part of it which presses on the back teeth ; but if the patient recovers, the loss of substance is soon supplied.

In many cases the mercurial ulceration in the throat so strongly resembles the venereal, that the mere appearance of the sore is not sufficient to enable us to form our judgment: we shall find an ulcer of a cup-like form, foul within, with a loss of substance, and in a progress quite similar to the venereal. Here we must endeavour to learn whether it took place during the exhibition of the mercury, or if there existed any previous ulceration, and, if so, whether that had in part healed by the mercury and afterwards seemingly grew worse from it. We must also inquire, what quantity of mercury had been given, of what quality, and in what form. These points, if maturely considered, will lead us to the true knowledge of the disease, when its mere appearance will not conduct us to it.

The mercurial disease in the throat sometimes commences only in the middle state of an excoriation about the tonsils, the uvula, the back of the pharynx, or on the inside of the cheeks; and the patient, perhaps, at first complains of a thickening and relaxation about these parts, and his voice often bespeaks such a kind of infection. In these cases the venereal ulceration seldom precedes the excoriation, and in one instance, which I recollect, of this sort the complaint commenced two months after all mercury had been discontinued; but, to the time of the excoriation, a very irritable mercurial habit had existed. After the excoriation, which generally has a white apthous look, has continued for some time, one or other of the tonsils commonly ulcerate, if some means be not immediately used to prevent its progress, or

if it should unfortunately be mistaken for a re-appearance of the lues venerea. To decide on the cause of this excoriated apthous appearance, when it takes place, is not very difficult, if we remember that this is seldom or ever the form of the venereal affection; that the inside of the cheeks never takes on a venereal excoriation or ulcer, except venereal matter is particularly applied there; and that the cheeks will generally be found excoriated in spots, when a mercurial ulcer is there, or on any other part of the mouth. Nay, it may be observed with truth, that frequently the mercurial disease in the throat does not commence till some weeks after the improper mercurial course, which produces the morbid irritation, has been finished: a convincing proof this, how long, even in an unobserved state, the mercurial irritation may hang about the patient.

In examining the fauces we should be careful not to mistake other diseases for the mercurial. I have before observed that, during a mercurial course when the mouth is much affected, the dentes molares by their pressure on their inflamed cheeks often occasion an ulceration and slough; but as we constantly find under this affection the symptoms of the lues venerea rapidly giving way, it must be considered merely as a common inflammatory complaint, terminating in a slough without any peculiar irritability about it.

The ulcers in the cynanche maligna we must carefully distinguish from the mercurial. Collections of the coagulable lymph about the tonsils and the neighbouring parts may be mistaken for ulcers, and of a

specific kind, if we are not on our guard. The glands and parietes of the fauces are subject to abscesses, to excoriations, and to ulcers from a variety of causes unconnected either with the venereal or with the mercurial irritation.

With this mercurial affection of the throat we must remember that it may happen, that a suppressed venereal action is present, as in the mercurial bubo and chancre; and, on a re-appearance of symptoms, we must take the same investigation as to their real nature, whether they be venereal or mercurial, as I have noticed when speaking of the mercurial bubo.

The mercurial ulcer in the throat, I have observed, is more apt to return than the same affection in any other part, and from very slight causes too, sometimes merely from a change from warm to cold weather, or from exposure to cold, &c. &c.: and I may with truth assert, that in general it will be found that the mercurial irritation hangs longer about the habit when it shews itself in the throat, than in any of its other attacks.

In these cases of the throat, where much mercury has been given and several times repeated without curing the ulcers, there can be little doubt of their being merely mercurial, and we should refrain from the use of mercury as from a poison; and, though even for many weeks we perceive no great amendment in our patients, we must never be deceived into the idea that these cases are venereal. If we should be led to think so we may torment, or even kill, the patients, but certainly we shall not cure them. In-

deed, in every instance of an ulceration in the throat, which either commences or becomes worse during the exhibition of mercury, it should be an invariable rule to quit its use, until we see that a change takes place, which determines the complaint to be again merely venereal. I am now supposing, that the doses of the mercury were sufficiently powerful to overcome the venereal action, and that, if the mercurial action had not intervened, they would have cured the disease, which must have been the case if they had in part removed that disease.

When it is the venereal virus which is again coming into action, the ulceration will be found less moveable than the mercurial, and many other very decisive symptoms of the lues venerea will generally now appear, such as pain in the shin-bones, and in the os frontis, with copper-coloured spots on the breast, and other symptoms.

There is an eruption on the skin peculiar to mercury, which I shall have occasion hereafter to mention. This eruption is of a pimply or of an herpetic look; the true copper-coloured blotches are strikingly characteristic of the venereal action.

The throat-cases which have been thought cancerous, after mercury had been given, from their dreadful and formidable appearance, are all without exception mercurial.

I have observed that this mercurial sore throat takes place in all kinds of habits. The throat indeed is very susceptible of ulceration, and this ulceration, like the mercurial bubo, has at times been suspected to be scrofulous, cancerous, &c.; but from what I

have before advanced on these points, it will be seen that the suspicion is groundless.

In Mr. John Hunter's Treatise on the Venereal Disease we find frequent allusions made to this complaint in the throat, but he expresses himself very obscurely as to its being the mere effects of mercury; as he considers it rather as the compound effects of the venereal virus and of mercury. His words are the following (page 369); "Such complaints are more common in the tonsils than in any other part; for we often find that, while a mercurial course is going on, and the ulcer on the tonsils healing, or even healed, they shall swell and become excoriated, and the excoriations shall sometimes spread over the whole palatum molle, which renders the nature of the disease doubtful. I believe these excoriations, as well as such other appearances of disease as come on during the use of mercury, are seldom or never venereal." He then recommends that the mercury should not be continued longer than appears to be sufficient for overcoming the original venereal complaint, but, agreeably to what we have stated to be the true nature of this disease, we ought in all these cases instantly to desist from the use of it, though there may be reasons to suspect that the venereal virus is still in the habit, and that we must renew our mercurial course again. Mr. John Hunter (p. 323) thus describes the excoriated state of the mercurial disease in the throat: "There is another complaint of those parts, which is often taken for venereal, which is an ulcerous excoriation, where the ulceration or excoriation runs along the surface

of the parts, becoming very broad and sometimes foul, having a regular termination, but never going deep into the substance of the parts as the venereal ulcer does. There is no part of the inside of the mouth exempted from this ulcerous excoriation; but I think it is most frequent about the root of the uvula, and spreads forward along the palatum molle. That such are not venereal, is evident from their not giving way in general to mercury."

Mr. Hunter in the same page mentions that, "the true venereal ulcer in the throat is perhaps the least liable to be mistaken of any of the forms of the disease. It is a fair loss of substance, part of it being dug out, as it were, from the body of the tonsil, with a determined edge, and is commonly very foul." I agree with Mr. Hunter, that this is the true appearance of the venereal ulcer; and that, where mercury has not been given and an absorption of the venereal virus has been suspected, it pretty certainly discovers what the disease is. But as the very same appearance of ulcer may be the consequence of mercury, therefore, notwithstanding the resemblance it has to the venereal ulcer, if it will not give way to the cure, and much mercury has been employed (perhaps without sufficient caution) we ought to consider this ulcer as mercurial and not as venereal.

Dr. Swediaur in his *Practical Observations on Venereal Complaints* (page 226) very prudently cautions us against mistaking for venereal ulcers in the throat, those ulcers, which originate from the saliva rendered acrid by mercury, and more especially those, which

were really venereal in their origin, but have now changed their character entirely: for, by continuing the use of the mercury, Dr. Swediaur says, the patient may be materially and irrecoverably hurt. In page 114 he gives two cases of the mercurial sore throat treated as venereal with fresh quantities of mercury, where the tonsils and velum pendulum in one of them were destroyed, and the superior maxillary bones in the other became diseased.

Mr. John Howard, in page 79, vol. I. and Mr. Benjamin Bell, page 60, vol. II. of their respective works on the Venereal Disease, bear testimony to the ulcerous effects of mercury on the throat, and the hazard of mistaking this for the venereal complaint.

The cure of this mercurial ulceration in the throat is a subject which comes more properly under consideration, when I speak of the cure of this disease in general. All therefore which I shall now say on this head, is, that every remote cause of this disease should carefully be avoided. Mercurial fumigation, though much recommended, must nevertheless be considered as a very improper application, and likely to produce the mercurial ulcer; first, as it is a topical application of mercury to a venereal ulcer; and secondly, as being of a saline nature when in a state of vapour.

If the strength of our patient will admit of it, venæsectio is the first means we should employ to abate the common inflammation attending these ulcers. This may be repeated with advantage. When the pulse is strong, the blood will be always found remarkably buffy, and the patient, far from being

weakened by the operation, generally gains more strength from the irritation, which has harassed his constitution, being thus lessened. Mild purgatives, with some saline medicine and a strict diet for a few days, will be also proper.

We may then with greater hopes of success, and with more speed, finish the cure by exhibiting the *extractum cicutæ** and *decoct. sarsaparill. comp.* increasing gradually the quantity of the extract from two pills of five grains in each to the quantity of two drachms or more in a day, if the inveterate nature of the case requires it, and if the patient can bear the dose.

The cicuta apparently keeps under and finally destroys the diseased specific action, and the decoction powerfully restores the diminished secretion and gently acts as a tonic.

I may here with propriety add the account of a most severe case of this disease, which, after many years continuance, was at last perfectly cured.

The patient was a woman about thirty-five years of age. She first took mercury for three venereal ulcers on the labia pudendi, which were also locally treated with mercurial lotions, and which after some weeks healed. Upon this she thought herself well, and of course quitted her mercurials. Some time afterwards she caught cold, and complained of a sore throat, and mercury was given again on the presumption that some slight excoiation, there dis-

* Cicuta is named now, in the New London Pharmacopœia of 1809, Conium.

coverable was venereal. This appearance however left her, and she threw aside the mercury.

But, that I may not dwell too long on the particular description of each return of the complaint in her throat, it will be sufficient to observe, that for four years, either in the spring or in the autumn, the disease renewed its appearance, and gradually became worse and worse on each return; the ulcers on the tonsils and uvula were large and foul, and the inside of one of her nostrils took on the complaint. The disease was considered, however, to be venereal, and particularly so from being sometimes connected with severe pains in her shin-bones. Five courses of mercury were employed at different times with a steady perseverance, sometimes in the form of mercurial frictions, and at other times in pills of calomel, or the solut. hydrarg. muriat.* with decoct. sarsaparill. and many kinds of washes to the part ulcerated: but, though these appeared sometimes to check the disorder, it was soon apparent that the ulceration returned with more virulence.

Preparations, therefore, of bark and cicuta were often exhibited to restore the patient, as also the decoction of sarsaparilla and steel pills; yet, notwithstanding they for a time removed the ulceration, it still returned. At last the patient was so much reduced, and the ulceration became so formidable, that the case was pronounced to be incurable and of a cancerous nature.

* Hydrargyrus Muriatus is now named, in the London Pharmacopœia 1809, Hydrargyri Oxymurias.

I was desired by a friend of mine to accompany him to give my opinion on this case. On seeing her, I judged it to be merely the effect of mercury, and a most dreadful instance of the kind, and that, in fact, the patient had not been cured, from its having so often been considered as venereal, and from mercury having been so repeatedly exhibited.

At this period her situation was truly horrible. The ulcers had entirely destroyed the tonsil glands, and, in part, the uvula and the back part of the pharynx to the extent of near two inches. The surrounding inflammation and tumefaction were very great; the ulcer was foul, deep, and very irritable; and every day we expected to see some of the cervical vertebræ denuded. The submaxillary glands were enlarged and tender, her strength and flesh were extremely reduced, and she complained of severe pains in her bones. She had no appetite, and could swallow nothing but fluids; she could seldom get any sleep, being continually disturbed by a cough, which arose from the acrimonious discharge of the ulcer irritating the epiglottis. Whenever she did sleep, her breathing was so loud and so uncommonly disagreeable as to disturb every person near her. In this alarming situation, while the ulcer was gaining ground, it was necessary that something should be done immediately, or the patient would have been lost. Formidable as the appearance was, I could not bring myself to think that it was cancerous, from reflecting upon its apparent rise from mercury, and from having learned that, notwithstanding its malignancy, it possessed the shifting moveable nature of

the true mercurial sore, passing sometimes from the arch of the mouth to the pharynx and back again, and even at this time, creeping from one side of the pharynx to the other, leaving some parts healed. I therefore adopted the following plan, in which my friend acquiesced; to abate the irritability, to support the patient's reduced strength, and to divert, if possible, the action of the vessels to a more innocent spot. We ordered a quart of the compound decoction of sarsaparilla, with half an ounce of the sarsaparilla powder in it every day, and the following pills:

R Extract: Opii ʒ ss.

Ol: Succ: Rect: g^{ss} X

Bals: Peruv: ʒ ii

Pulv: Glycyrrh: q: s: f^{ss}. Pilul: N^o. 60. capiat
pil: i. secundâ quoque hora.

The essential oil and balsam were added to make the opium set easier on the stomach, and the dose of the pills was increased to two every two hours. At the back of her neck, in as direct a line as possible with the ulceration in the pharynx, we introduced a large seton, and kept up a very considerable discharge and irritation from it, and apparently with the happiest effect in abating the morbid action of the ulcer; for I observed that the more the seton discharged, and the greater the irritation it occasioned, the throat became the easier and better. Nay, so much was I satisfied of its good effects, that, upon any similar pressing occasion, I should certainly try it again: I would not indeed try the seton, but a caustic, as a caustic will produce a more quick and gene-

ral effect. She gargled her throat with a solution of the *zincum vitriolatum** in water.

In a few weeks a considerable progress was made in the cure, and in less than three months, by the above treatment, the whole of this formidable ulceration was removed. She rapidly recovered her strength, flesh, and appetite; her cough left her, and by country air and asses milk she was restored to her usual health. However, as the winter approached, she complained of some little return of uneasiness in her throat, and, on viewing it, a small degree of excoriation and ulceration was visible, but nothing formidable. A return to the decoct. *sarsaparillæ*, &c. and *cicuta*, for a few weeks, removed the appearance, and she perfectly recovered her health.

I should have observed in relating this case, that this woman's constitution resisted the action of mercury upon the mouth and the other secretions; for, although she used mercurial topics improperly and took saline mercurials inwardly, yet mercurial frictions, under confinement and with flannels, never produced the least ptyalism, or increased the urine or the perspiration.

This patient tried sea-bathing twice for the disorder, but without experiencing the least benefit. There was not, indeed, the smallest appearance of a serofulous habit about her.

* *Zincum vitriolatum* is now called, in the new London Pharmacopœia of 1809, *zinci sulphas*.

SECTION VI.

Of the Mercurial Disease in the Bones, the Periosteum, the Tendons, the Tendinous Fascia, and in the joints, the Cartilages and the Ligaments.

ALL these parts, as we know, take on the venereal action at times ; but some of them only in appearance, as the joints, the cartilages, and the ligaments, when in connection with a venereal ulcer, that is, when the ulcer, by its contiguity and malignancy, has extended itself to them, or when the venereal matter has been applied, through the medium of a wound, immediately to these parts. Thus I have sometimes seen the joint of a finger destroyed by the venereal virus being applied accidentally to a recent wound situated in that part.

But the mercurial disease will be found to attack all these parts of different structure by the extension of the specific diseased action, and not merely by the spreading of a mercurial ulcer in the neighbourhood ; for indeed it very seldom happens that the mercurial disease discovers itself in them in a state of ulceration.

If what I have now observed be true, the extent of the mercurial disease is rather greater than that of the venereal. When any of these parts take on the mercurial disease, the irritation must always be considered as a general and not as a local affection ; except the complaint commenced there locally in a venereal ulceration. The irritation will

commonly discover itself by pain, by tumour, and by inflammation, and very often without there having been any one previous symptom of the lues venerea. It is however by these symptoms, commencing during a course of mercury and resisting all the efforts made by that medicine to cure them, that we are led to believe that they entirely depend on the mercurial specific irritation.

Whenever these parts are first the seat of the venereal disease, they bespeak an inveterate state of infection, and we must be on our guard against the possibility, I should rather say against the probability, of the venereal virus re-appearing on the removal of the mercurial diseased action. For it is not a short, nor a very mild, course of mercury which will cure the lues venerea when it has extended itself to the bones and membranes; and if the course was checked in the beginning by the coming on of the mercurial irritation, the venereal action must of a certainty be only suppressed, but not cured.

The appearance of the mercurial disease in these parts so much resembles the venereal disease, that we must always take into consideration the quantity, the quality, and the effects of the mercury which was previously given, to enable us to form a right judgment of these cases. The symptoms, however, are not so absolutely alike in both diseases that there are no shades of difference: the symptoms, for instance, whether of pain, of tumour, or of sore, possess the moveable fluctuating disposition which I have so often mentioned, when speaking of this disease in the groin and in the throat.

The mercurial disease in the bones mostly extends no farther than in producing a pain in them. This occurs many times strictly in those parts which are commonly affected by the venereal virus, and these pains will come on principally at night; but in many cases the disease will extend to the joints of both extremities and even to the smaller joints. The hip-joint has sometimes been the seat of this disease, a circumstance which we shall find described very accurately by Mr. John Howard in his work on the venereal disease.

The bones of the head are often the seat of the mercurial irritation, and the patient is subject to violent head-aches. These pains, in many cases, are as troublesome during the day as in the night, but they shift very frequently from one part to another, last for a week or two, disappear, and then return again.

The patients sometimes supposed them to be a rheumatic affection; and indeed when these pains arise from a severe cold, caught under the use of mercury, they are no doubt then purely of a rheumatic nature, and depend upon an inflammatory diathesis, in which case the common means of removing an inflammatory affection will best succeed in removing them. We therefore ought to be careful not to confound the two complaints.

The mercurial irritation occasionally proceeds to such an extent in the bones as to produce an affection of them resembling the disease called the *mollities ossium*, in which the bones are liable to fracture on every trifling accident. Mr. John Howard makes mention of this affection, and he concludes that there

is then an absorption in part of the earthy matter of the bones ; a circumstance not unlikely to take place when the mercurial irritation is very violent in these parts. The teeth will often drop out from the destruction of the gums, and an absorption takes place of their alveolar processes from this same cause.

The venereal virus, most certainly, at times also renders the bones very friable, but it generally first makes them carious. This is not the case with mercury, when it produces the kind of disease which I have just observed.

Sometimes the venereal virus, we know, affects certain bones with hard circumscribed tumours, attended with very considerable pain; and these nodes, as they are called, will at last terminate in caries and exfoliation. While the affection remains truly venereal, mercury can alone cure it, but in these cases it must be a very decided course. If the mercurial preparation, which is applied, be not a proper one; if there be no affection produced on the mouth and secretions, and the patient be irregular; in that case the venereal action during the cure will be suppressed, and these nodes and caries, like the bubo and sore throat before described, may take on a new action, nay, they may become mercurial, and the mercury, if it be now continued, will aggravate the disease.

Few bones in the body are exempt from the possibility of a venereal infection, and, as far as my observations have reached, I may assert that the mercurial irritation is equally as extensive in its effects.

When the bones and cartilages of the nose are affected by the venereal virus, the complaint is then called a venereal ozæna; and, from the spongy and delicate structure of these bones, the mischief done by it is often sudden and irreparable. The mercurial ozæna is likewise a complaint not unfrequent. I have seen some cases of it, and have observed that its effects are as mischievous and as sudden as those of the venereal ozæna. I have known the mercurial ozæna to commence in a case of the mercurial ulcerated throat, when there had not been the least appearance of a venereal ulcer in the part.

It sometimes happens, that the mercurial complaint in the nose is confined to one particular spot, and continues there many weeks without making any progress, and will at last be removed by the cure of the general irritation.

Perhaps in no instance is it of more importance, than in this state of the disease, to distinguish accurately and speedily, when the case is doubtful, on what specific irritation it depends. I have seen the bones of the palate, the schneiderian membrane, the cartilages and bones of the nose all confounded in one diseased mass. I have also seen several cases of the mercurial disease from hot climates, in which the complaint has first commenced in the nose, and, after having produced considerable destruction there, the ulcerative process has crept up on each side of the superior maxillary bones, through the cheeks, in an irregular angular direction, till at last the miserable patients have found in their deaths the only remedy for their unhappy suf-

ferings. Some of these cases have been accounted incurable instances of the lues venerea; and others have been called the lues venerea terminating in cancer; when, from their whole history, I had little doubt of their having been first venereal, and then finally and truly mercurial. In many of them I had opportunities of observing the moveable disposition of the ulceration, which is so characteristic of the mercurial affection.

A rising, or tumour on a bone, which is either the effect of the venereal or of the mercurial irritation, may remain after the constitution is perfectly clear of the previous irritation. In this state we must look on it as an innocent exostosis; for when the particular irritation, which occasioned it, has ceased or is removed, the disease will not depart though the rising and increased size in the bone still remain.

The periosteum and pericranium are oftener the seat of the mercurial disease than the bones; the symptoms are pain, tumour, inflammation, and ulcer. From this cause the pains very much resemble the venereal disease, except as to their being very moveable and inconstant. They sometimes extend to the perichondrium, and, after the perichondrium has been affected, I have seen the whole limb of that part become œdematous. This affection, which commences during a course of mercury under the unfavourable circumstances I have so often mentioned, sufficiently discovers the cause on which it depends. I have occasionally made incisions into these tumours, when I have supposed them to be mercurial, and the wounds

have healed without the aid of mercury. Blisters have been said to remove them.

Mr. John Hunter, in page 370 on the Venereal Disease, makes mention of these affections in the periosteum arising during a mercurial course : he does not, indeed, consider them as venereal, but observes that they have been too often thought so, and in consequence of that opinion more mercury has been given.

The tendons and tendinous fascia of the muscles, like the cartilages and ligaments, seldom discover any signs of the venereal infection, except they take on the disease from the spreading of a venereal ulceration in their neighbourhood ; but the mercurial irritation frequently affects them from its general action on the system.

Sometimes the affection discovers itself only by pains in these parts ; at other times tumours, with or without inflammation, take place. These tumours have been called nodes, gumatæ, &c. Those diseased lumps, which are named ganglions, frequently have their beginning in the mercurial irritation. I know, indeed, that it is generally supposed that these tumours on the tendons may arise from the venereal infection. The more however we examine into their origin, the more thoroughly we shall be convinced that they never do appear as an original venereal symptom ; but when they do take place, it is after mercury has been given in considerable quantities. Mr. Benjamin Bell (vol. ii. p. 122 and 123, on the Venereal Disease) makes mention of his having removed them from the tendon of the biceps muscle ; and, though they were

suspected to be venereal, yet he says the wounds healed perfectly without mercury.

These tumours will sometimes remain on the aponeurotic expansion of the muscles through life, without increasing or doing mischief: at others they will gradually soften and waste away: and I have also seen them inflame, burst, and discharge a fluid, and then heal with certainty and safety. These tumours are of different size and extent in different cases; and sometimes the tendon of a whole muscle is enlarged with this affection. A friend of mine once saw a singular case of this kind in a man who was examined for a recruit. There were upwards of thirty of these tumours about the tendons of the abdominal muscles; and from the recruit's account he learned, that they first appeared after two severe courses of mercury for the lues venerea, and that he had not discovered one of them before he had used that mineral. These tumours occasion but little pain, and sometimes are firmly attached to the tendons, and at others they are moveable; but they require little or no assistance from art, except, from their size, they should be found so inconvenient that it may be thought necessary to remove them. Friction and pressure will occasionally disperse them; and, if they contain a fluid, it may be discharged with great safety: the removal, indeed, of the disease of irritation, which occasions them, instantly renders them innocent.

The joints, when they are the seat of the mercurial disease, have very often an appearance which much resembles a rheumatic affection, but it is more durable and less painful. In the case of a gentleman,

who had received the venereal infection by his finger, which was followed by a bubo in the axilla, after the use of mercury, for a considerable time both externally and internally, a great pain and tumefaction took place at the wrist-joint of the right hand and extended to the fingers of the same limb; from which I concluded that it was not venereal, and I could perceive there was a considerable mercurial irritation about him. I therefore recommended him to quit his mercury, and with some few remedies to quiet the irritation, I directed him to wait patiently the event. In three months, as the disease in his constitution lessened, the complaint in his wrist and fingers subsided and quite left him.

In another case, both the ankle-joints became stiff and enlarged after a severe mercurial course, and a considerable œdema attended the surrounding parts; the patient continued lame for many months, but without pain, and at last gradually recovered the free use of his joints. In this patient a very considerable degree of mercurial irritation was apparent; for some time after the complaint commenced a great quickness of his pulse and a white tongue were perceived, and flying pains were felt in his bones; but the irritation nevertheless appeared to be removed completely for some months before he recovered the proper use of his joints, or before the swelling was removed.

We must not mistake this swelling of the joints for a rheumatic affection, arising very often from mere cold caught under a mercurial course: for the specific mercurial irritation can alone be produced under some of those unfavourable circumstances in

a mercurial course, which I have so often noticed. A mere rheumatic affection will be found more painful, but less obstinate, than this disease, and attended with a less immediate affection of the ligaments about the joints, as its seat is more in the skin and in the muscular parts.

I will close this brief account of the mercurial irritation in the bones and membranes, with the consideration of a case of the disease in these parts given by Mr. John Howard, in the first volume of his *History of the Venereal Disease*, p. 128. Mr. Howard, indeed, does not offer it as an instance of that disease, yet, nevertheless, I am convinced that it should be strictly so considered. The case is evidently given with great accuracy and judgment. For the account at large I must beg leave to refer to Mr. John Howard's work, as the whole would be too long to insert with the observations which I wish to make upon it.

A gentleman had two small chancres, which appeared the fifth week after the supposed infection: these chancres disappeared under a course of calomel pills and a calomel wash, but he was careless and remiss in taking his pills. At the end of three months a venereal eruption, and some pains which he felt, obliged him to have recourse to his calomel again, which, as it did not agree with his bowels, was changed for the mercurial ointment. This ointment was employed for three months, beginning at a drachm at a friction, and increasing the quantity gradually, and making each friction fairly with his own hands, until he had consumed a pound and a half (avoirdupois weight) of the mercurial ointment. This very

large quantity made his mouth tender, but not sore, nor did it occasion any ptyalism. It was the winter season; but nevertheless he exposed himself to the air and to bad weather during the frictions, though he was much emaciated and felt great languor and weakness during the time. The eruption, with the exception alone of three pustules, disappeared on the second friction; but so far was he from being well at the finishing of this course, that he complained of transient superficial pains in various parts of the periosteum and perieranium, which the drinking of wine and the exposure to easterly winds always increased. These pains at last appeared more to affect the bones, and were continually shifting to different bones, and returning in paroxysms of a day or two's continuance, and then quitting him for perhaps a week or a fortnight. There likewise came on an enlargement of the bone over each of the frontal sinuses, and in one of these there remained a depression and a softness, which Mr. Howard imputed to the action of the mercury causing the absorbents to take up part of the osseous matter.

He was now about to discontinue his mercury, as these symptoms had given way, and he imputed the pains merely to a rheumatic affection; when an itchy eruption took place all over him, like a nettle rash. This itching was felt in the periosteum, and through the whole extent of the ulna and of the tibiæ, more especially near the olecranon of each ulna, in which spots there appeared depressions in the bones. These depressions afterwards filled up with small tumours, which were at first fixed, and then became detached,

and in the course of two years gradually wasted away.

In short, the periosteum of every bone in the body became affected at times with this itching and tenderness, and many of them with depressions; the mercury was discontinued, and in a few days the symptoms abated greatly. Soon after this, an itching took place about the skin near the verge of the anus, attended with a discoloration some way up the rectum. Some saline mercurial ointment was applied which removed the appearance, but immediately the nose became affected with a violent itching pain and with a purulent discharge. The patient was now in a warm climate, and for these symptoms mercury was used in the alterative way, for several weeks, with decoct. sarsaparill. which seemed to relieve, but did not cure, him; for the complaint in his nose was only removed by the re-appearance of a new set of symptoms. Wearied out with the ineffectual operation of his mercurials, he now quitted the use of them for three years; during which period he had many returns of his old flying pains in the bones and periosteum, which occasionally affected the joints, the shoulders, and the teeth. The pains for many months appeared to be only external, and could be relieved at times by the pressure of the finger on the pained part. In the second year the pains were more fixed and constant: tender risings also took place in many parts of the scalp, which often suppurated, and healed, and left no disease behind them. Rhagades in the palms of the hands came on, and they were dispersed in the same manner. The throat and uvula at times became red, relaxed,

and painful, and the nose also alternately, with the pains in the palms of his hands and feet. Mr. Howard, however, on examination could not, even at the end of the third year, discover either in the periosteum or in the bones any real disease in their structure. He now advised the patient to try another course of mercury; but he would only submit to an alterative one of the *hydrargyrus calcinatus*,* and he did not confine himself. It was now indeed the summer season, and he continued the course twelve weeks. The pains left him, he recovered his health, and remained well till the winter, when the pains again returned and continued more or less for six years, with a periodical distressing sciatica, the attacks of which were generally preceded by an itchy and scabby eruption on the outside of the preputium. He at last left this country to reside in America, from whence Mr. Howard received this latter part of his history, and that he was now enjoying tolerable health, except with a return of his pains five or six times a year, but that he had never used any mercury since the alterative course of twelve weeks.

Mr. Howard in his observations on this case very judiciously asks; "Could so large a quantity of mercury as this patient used in ointment, containing more than eight ounces of the crude mineral, possibly be introduced into the habit with impunity?" and let me add, when it is also remembered that the industry

* *Hydrargyrus calcinatus* is now named, in the new London Pharmacopœia of 1809, *hydrargyri oxydum rubrum*.

with which it was rubbed in, must have given power to every grain in its effects on the constitution, it is indeed impossible. Mr. Howard also observes with much truth, that the affection of the bones, in the latter part of the course, was the pernicious effects of too much mercury. But, however, I cannot agree with him even in a suspicion that this disease, in its latter stages, might be the venereal disease suppressed; or that the symptoms might be partly owing to the venereal action imperfectly cured, and partly from the remedy being injudiciously managed. This is such a complex idea of the complaint as could lead to nothing certain in its treatment, and might have given encouragement to a further trial of mercury. For as the case is related (and a more accurate and a more clear account I never read) I must consider it, after the second exhibition of the mercury, strictly as a case of the mercurial disease. If we view the symptoms upon the principles of this disease, which I have laid down, we must, I think, perceive that every opportunity was fairly given for the removal of the venereal virus, and every encouragement was given for exciting the specific diseased mercurial action.

Let us consider a few of the leading circumstances of this case:

1st, It is probable that this gentleman's constitution was not favourable for the true anti-venereal action of the mercury, for with this very large quantity of mercurial ointment his mouth was hardly sore, and a ptyalism never came on. 2dly, He would never confine himself to the house under its use; and by

this a check was given to the salutary action of the mineral.

The first preparation of mercury which he took was not a proper one, nor was the course effectual; and therefore the eruption at the end of the first three months was most probably venereal. For this he very properly began the use of the mercurial ointment, and in very moderate, but efficient, quantities. In the earlier part, therefore, of this course, a very full opportunity was given for removing the venereal virus entirely, and accordingly we are told that at the second rubbing the eruption began to disappear; but as he increased this quantity, and rubbed it in with a diligence which must have heightened its effects very much, it must be justly supposed that the second set of symptoms, which appeared in the latter part of the course, were of a mercurial origin; and that this case is a good and legitimate instance of the mercurial disease in the bones and membranes, arising from an excessive quantity of mercury administered under unfavourable circumstances in a habit disposed to this diseased action.

It should also be observed, that the symptoms never had the steadiness of venereal symptoms, but the transient unsteady character of the mercurial ones. Many of them were of a dissimilar nature; as for instance, the periosteum and the bones so affected could not, as they did, have remained to the last, without running into ulceration, into real nodes, and into caries, if the venereal action had actually been the disease. The sores on the seat would have terminated in venereal ulcers, and would not have healed with-

out leaving some marks of disease behind them. The too long alterative courses of mercury, which were afterwards given, though they appeared at the time to be of some service (a deception which, as I have mentioned, sometimes takes place in this disease) did not remove the symptoms; for they afterwards returned with greater vigour and in more variety.

The leaving off the mercury alone appeared to mitigate the disease, and we learn that it was only by doing so for many years that this gentleman recovered a certain degree of health, and that his pains became more tolerable and less frequent.

But this case will be still plainer, if we contrast it with another case given by Mr. John Howard (vol. 1, page 155, of his work) which was without all doubt truly venereal, and had continued so more than five years. The outlines of the case are as follow. A surgeon wounded his finger in opening a body with venereal ulcers about the penis, and in this manner he received the venereal virus. The sore on the finger did not heal, the absorbents leading to the axilla in that limb became red and inflamed, and tumours formed in the arm-pit. After this, knotted chords appeared about the glands of the neck, and on all the extremities, with very distressing nocturnal pains in various parts; and finally, a real venereal node appeared on one of the radii with a venereal eruption surrounding it.

The venereal virus not being at first suspected as the cause of the disease, the tumours were thought to be scrofulous, and the pains to be rheumatic. For

the two first years, the patient did not use mercury, except a little calomel with bark, but not under any idea of removing a lues venerea. At the close of the second year, the mercurious calcinatus,* from one grain to two grains was given every day for some weeks under confinement, and he experienced some benefit from it; but neither the quantity nor the quality of the medicine were such as could cure the disease in the inveterate state in which it was.

A considerable time after this course, on the appearance of a node and of other symptoms, the mercurial ointment was used, and after employing it for some time, and having recourse to it again on the re-appearance of some suspicious symptoms, the patient was perfectly cured by it.

In this case, if the reader will consult the whole of it, he will find that there was a permanency and a steadiness in the symptoms peculiar to the venereal, and unlike the mercurial, disease: and he will find that the symptoms, from the beginning to the end of the complaint, occupied the same spots.

It was certain in this case that the venereal virus was received into the habit; it was also certain, that no mercury, sufficient to remove it, was given at first, as the real cause of the disease was not then suspected; and as the mercury finally cured the patient, when it was given in an efficient quantity, no doubt can remain, as I think, that this disease was truly venereal throughout.

* The *Hydrargyrus Calcinatus* is now named, in the New London Pharmacopœia of 1809, *Hydrargyri Oxydum Rubrum*.

In the other case I have observed, that the mercury had been given properly from the beginning, and had always aggravated the complaint; and the patient recovered tolerable health only from not using it for many years.

As I have drawn a conclusion on the first patient's disease somewhat different from that which is deduced by Mr. Howard, I hope and trust that I have neither mistaken his ideas, nor erroneously stated the outlines of the case: a reference may, however, be easily made to his work.

Upon the remaining symptoms of the mercurial disease I shall say but little, having before observed that every venereal sore on the surface, wherever situated, was liable to become mercurial under certain circumstances already described; but that these sores seldom have the same malignancy, or sensibility about them as the mercurial bubo, chancre, or sore throat have, as these parts are not of the same irritable structure. From this cause, and also from our seldom using topical mercurials to any venereal sores but the bubo and the chancre, we seldom are troubled with any other mercurial wounds but those which I have already described. Occasionally, however, I have seen venereal ulcers on the legs become mercurial, and connected with a general state of the mercurial irritation, and rendered so by having been dressed with mercurial precipitate.

About the verge of the anus, and sometimes for some way up the rectum, a mercurial irritation and eruption of an herpetic appearance have been produced by the imprudent use of saline mercurials,

especially of the hydrargyrus muriatus; and these symptoms have continued many weeks, and proved extremely troublesome to manage; there was also a violent state of itching tenesmus and piles which resisted every kind of application.

Other parts of the intestinal canal, besides their being exposed to the common stimulus of mercury, often take on its specific irritation. This generally happens from saline mercurials having been administered too liberally, and in these cases sometimes the degree of irritation in the intestines has been so great, that the patients have not been able to bear even the effects of the mercurial ointment, when it was afterwards applied in frictions, without their being immediately thrown into a violent state of irritation. On such occasions it is as necessary to discontinue all mercurial medicines until the irritation is over, as in any of the other instances which I have mentioned, though the disease in some of them is only local, and the venereal virus is still present in the habit; but it oftener happens when this irritation is excessive, and of long standing, and when it is connected with a general state of the disease.

In the third volume of the Medical Observations and Inquiries, p. 245, we have a paper, by Dr. John Silvester, on a very remarkable case of an obstinate and dangerous irritability in the stomach, which arose from an imprudent and sudden check given to a salivation. The disease lasted for several months, and was not removed till the salivation was restored. This case not only illustrates the instance of a mercurial specific irritation in the stomach, but

likewise discovers how beneficial a ptyalism and a freedom of the secretions of the mouth are for the true action of mercury, and how dangerous it is to check this effect while any considerable action of the mineral remains.

It is necessary to say something of the effects of the mercurial disease on the skin, in the state of eruption. But here it must be again observed, that I have never seen the copper-coloured blotches from the venereal virus under a state of mercurial irritation, and I therefore consider these blotches as truly characteristic of the presence and action of the venereal virus.

The eruptions which I have remarked from the specific diseased action of mercury, are of another kind. I have seen a pimply itching inflammatory eruption, increased by scratching, inconstant in its appearance and in its seat, sometimes very partial, at others very general, not strictly resembling the urticaria, but yet bearing something of its look and of its disposition, and this connected with a general state of the mercurial disease; for, indeed, this eruption, unconnected with other appearances of this disease, could not be pronounced to be mercurial.

I have seen another species of eruption from mercury, of a more obstinate and inveterate kind than the one just described, of a scurfy, scaly, and herpetic appearance, affecting the palms of the hands, the arms, the legs, and the body, but seldom or ever affecting the face; and it has a degree of virulency, in some cases, equal almost to the lepra

græcorum. Its connection with other mercurial symptoms, and its appearing after a very severe and improper course of mercury, sufficiently points out its specific nature.

It is no very uncommon circumstance, after a course of mercury, for a patient to be affected with a very troublesome pimply eruption on the face, which will continue more or less apparent for some years. And in habits generally called scorbutic, a scabby eruption after mercury will sometimes take place upon the face, occasioning much uneasiness from the apprehension of the venereal virus not being entirely removed. Time, abstinence, and proper opening physic will certainly remove it.

I do not believe that these two latter kinds of eruptions, though the consequence of taking mercury, are really the true specific disease of this mineral, but that they are merely the effect of simple irritation in habits disposed to eruptions and affections of the skin. We shall often find that they take place when there has been nothing severe, nor improper, in the mercurial course, and without a suspicion of any general state of the diseased irritation.

The venereal virus has been known to produce deafness and blindness; but though it has not fallen within my observation to see the same effects produced by the mercurial disease, yet I think it very probable that there have been cases of this kind.

Warts and excrescences may either arise from a venereal or from a mercurial irritation, and they must be treated according to the diseases on which they depend, whether venereal or mercurial. When

this specific irritation attending them is removed, they are then perfectly innocent, and, though they remain, they are no indication of a disease in the habit.

The alopecia, or the falling-off of the hair, is not a symptom of the mercurial disease; it proceeds very often from the debilitating effects produced by this mineral on the constitution. I have known this loss of hair, both on the head and the beard after courses of mercury, in cold phlegmatic or nervous habits, unattended with any symptoms of irritability about the patients; and after a certain time, when their health and strength have been re-established, the hair has grown again. In some of these patients it gives a singular appearance to the chin, the beard being deficient in spots.

We may easily imagine, that so violent a diseased irritation, as that which we have now described, must produce at times very bad and sensible effects on the general health of the patient. The manner in which it acts on the constitution is however similar to that, which, as we may observe, takes place from the venereal virus, or from any other morbid irritation when it is inveterate or of long continuance in the habit.

The patient becomes hectic, has a small quick pulse, and there is often a tendency to a colliquation on the skin and bowels, and a wasting atrophy of the flesh; his countenance is pale and wan, his nights bad, his appetite impaired, his strength much reduced, and he complains of a general irritability, with head-ache and flying pains in his bones, especially on

the approach of bad weather, of rain, of frost, or of north-easterly winds.

I have now finished an account of the mercurial symptoms produced from its specific diseased irritation. But while I have been pointing out the appearances of this disease, I have endeavoured as much as possible to avoid drawing aside, for one instant, the practitioner's attention from the progress of the venereal poison; for, as the symptoms of the two complaints are often very much alike, I wish it always to be understood that they are not to be supposed mercurial but as they are connected with the circumstances of irregularity and of mismanagement in the mercurial course, and with the plainest evidence that this mineral is not friendly to the disease present.

SECTION VII.

Observations on the supposed anti-venereal powers of some other medicines besides mercury, as sarsaparilla, &c. &c.

PREVIOUS to my entering on the treatment and prevention of the mercurial disease, I think it may not be improper, nor without use, to say a few words on those medicines which have been admitted into the list of anti-venereals, independent of mercury. First, by so doing, I wish to shew that this idea has been unhappily erroneous: and, by assigning them their proper station in the catalogue of remedies, the nature and cure of the lues venerea may possibly be less involved in obscurity, and we may still more clearly discover that mercury is the only effectual remedy which is at this day known in *Europe* for the venereal virus. Secondly, and this is scarcely second in my motives, is the opportunity which this investigation may afford for a further illustration of the mercurial disease.

It is very certain that few practitioners now place much reliance on these medicines, as anti-venereals; nevertheless they are still sometimes employed upon this principle, and the authorities of the late Dr. Alexander Russell on the Mezereon, and of Sir William Fordyce on the Sarsaparilla, are yet held in some estimation; though nothing decisively has been laid down as to their real action and utility in venereal complaints.

The principal part of these remedies is from the vegetable kingdom, such as the Chinese root, sassafras, guaiacum, sarsaparilla, and mezereon, besides various compositions of them with other drugs, whose virtue is supposed to be of a less specific virtue in this respect, under the titles of decoctions of the woods, decoct. lusitanicum. or the Lisbon diet drink, and other syphilitic decoctions too numerous to be mentioned here.

When I said that mercury was the only effectual remedy which we have for curing the lues venerea, of course I meant to confine myself to the disease as it appears in the natives of this country, and in most parts of Europe; for, from what has been advanced by some authors of great credit, who have made an inquiry into the history and cure of the lues venerea in other countries, we have every reason to believe that the native Indians both of North and of South America have attained, happily for themselves, an easy and speedy mode of removing this disease by some vegetable preparation. But it is not likely that the same remedy would answer in this climate, or with our constitutions.

Sir William Johnson purchased the secret of the North American Indians. The medicine, which they employed, was the *Lobelia siphilitica*; but though we are assured that it answers with them as effectually and as expeditiously as mercury, yet its trials in European practice, in this way, have not in the least succeeded.

We also learn from the voyages of Captain Cook and of others in the South Seas, that in some of the

islands there, particularly at Otaheite, where the venereal disease was most probably and unfortunately introduced by the French; the natives have discovered a very simple way of treating the complaint by vegetables. We have, however, no very clear account of their cure; and it is supposed that, when the disease is in the state of a confirmed lues venerea, their remedies will not prove effectual.

But to quit this digression. The circumstance of many of these medicines just enumerated, as the mezereon, the sarsaparilla, and others, when they are joined with mercury and are visibly by these means expediting the cure of the lues venerea, this circumstance, I say, has been one reason for suspecting them to possess an anti-venereal power, independent of mercury. But I trust that I shall shew that these medicines, when given alone in any case purely venereal, produce not the smallest effect in removing or in correcting this poison, though administered in the largest doses, and continued with the greatest care and perseverance. Their efficacy, therefore, on some occasions, when employed with mercury, should, as I apprehend, be imputed to some other cause than that of their correcting the venereal virus.

These medicines are never given for a recent lues venerea, where no mercury has been administered, from a full conviction that they cannot cure the disease in that state. But we principally confine their use to those cases, where mercury is apparently losing its salutary action, or is actually doing mischief; and then we sometimes find them to be of much advantage. Are we to conclude from this, contrary to

all analogy of other remedies employed in other diseases, *that* these medicines possess the power of correcting and removing the venereal action, in its most inveterate and confirmed state? *That* over this morbid poison, when it is received in the habit and before it has shewn any great extent of action, these remedies are inert and have no specific power? Or shall we not more reasonably conclude, *that* the disease has changed, or is changing, its type, and is no more venereal, whenever these medicines, in whatever form or combination, effect a cure without the aid of mercury?

These medicines, however, when joined with mercury, evidently in some cases appear to expedite, as I have before observed, the cure of the lues venerea; but this happens principally in those instances of this disease where the virus has been long in the habit, or where it shews itself on the surface in an eruption, and when the constitution is much weakened by the effects of it, or perhaps disposed to hectic. In these cases, perhaps, their good effect may be better accounted for on the principle of their being gentle tonics and sudorifics, aiding and assisting in restoring the weakened habit, and thereby lessening the morbid irritability, and allowing the mercury, undisturbed, to do its office as a specific, when the skin is the seat of this disease. These medicines, being generally administered in the form of decoctions, more powerfully promote the secretions, particularly of the skin, and prove of considerable advantage in this way; for the great quantity of water taken with them renders them much more active sudorifics than they would be

without it. When the disease is in a mild recent state, not requiring a very long or severe course of mercury, and the constitution is in other respects healthy, then we experience little or no benefit by joining these medicines with mercury.

Indeed the bark, a milk diet, and country air, in a broken constitution contaminated with the venereal virus, will often produce the happiest effects in preparing the patient for the exhibition of mercury, and in assisting its operation when given. Yet to bark, to country air, and to a milk diet, who has ever imputed the smallest power of correcting this virus?

I must mention another circumstance, which I think tends to destroy every supposition of such a specific virtue in these medicines; for I am now speaking of them in general, and in all their various forms of combination. The circumstance is this: that very often, when they are administered in those cases, where mercury ceases to be salutary and is doing mischief, they at first apparently cure the patients, but it happens that, in some of those cases after a certain period, diseased appearances return; yet, unfortunately, recourse to these medicines proves not of the least service, and mercury alone effects their cure. When these cases occur, what then has taken place? Why this; namely, that they did cure these patients, when the disease was mercurial and the venereal action was only suppressed, but that, after they had removed the mercurial action, and the venereal virus again came into action, they then ceased to produce any good effect. That it is the venereal action which indeed returns in these cases, is proved by the mercury being again servicea-

ble; were it only a return of the diseased mercurial action, as is sometimes the case, these medicines would in all probability be still of use; but the mercury most certainly would continue to do mischief, if it were renewed. I will illustrate this by a case.

A labouring man, who had long been afflicted with the lues venerea and had taken at times a good deal of mercury, came under my care with two considerable ulcers in his tonsils, and complained of pains in his shin-bones; he was reduced in flesh and was much out of health. He had taken mercury, he said, and found benefit from it; but, as his bread depended upon his daily labour, he had been irregular in the use of it, and had exposed himself constantly to the weather, and always quitted his medicine when the symptoms appeared to be removed. I directed some mercurial frictions, and forbade his going out during the course: this, however, he did not attend to, and he also rubbed in double the quantity of mercury ordered. The symptoms mended rapidly at first, but without any considerable affection of the mouth and fauces; at last I observed that they became stationary and then grew worse. From the man's exposing himself to the cold and his mouth being unaffected, and from knowing that he had used a double portion of the mercury, I was now convinced that the alteration for the worse in the disease was owing to the mercurial irritation taking place of the venereal action; and whether the venereal action were only suppressed, or entirely gone, was a matter of no consequence at the present moment, as the mercury at all events must be discontinued. His pulse was full and quick;

I bled him, and ordered him some cooling, opening physic; and in a few days he was better. I then ordered him the compound decoction of sarsaparilla and the extractum cicutæ.*

In a few days the symptoms began again to mend rapidly and his health to improve; however, at the end of six weeks, when all his symptoms were nearly gone and the ulcers in his throat but just visible, he began to grow worse; the ulcers spread, and he complained of flying pains. I persisted in the same plan, nevertheless, for another fortnight, but the pains he felt and the ulcers in his throat became so steady in their appearance, and so strongly bespoke a return of the venereal action, that I directed mercurial frictions only, and insisted upon his confining himself to his room; and by this plan he was perfectly recovered. I have selected this case by no means as a singular one, but to shew how ineffectual are the powers of sarsaparilla, mezereon, and guaiacum over the action of the venereal virus; for it was evident that they were of service in this case, only when the mercurial action was present.

In the next place, let us consider a little what has been said in favour of the anti-venereal powers of two of these medicines, on the mezereon by Dr. Alexander Russell, and on the sarsaparilla by Sir William Fordyce. If we should find that these facts are dubious, or not to be depended upon, and that their arguments are founded upon premises, which are not

* *Extractum Cicutæ* is now named, in the new London Pharmacopœia of 1809, *Extractum Conii*.

true, we shall have still stronger reasons to suspect the imputed virtues of these medicines in the lues venerea. First, as both these writers were men of veracity and of ability and had paid particular attention, by numerous trials, to the subjects on which they wrote; and secondly, if the cases they have published do not establish the powers of these medicines, none can do so with any probability; for they are offered as cases selected from a great number of others, as the fairest and the fullest evidence of the anti-venereal powers of these medicines.

Dr. Alexander Russell's paper on the cure of venereal nodes by a decoction of the root of the mezereon will be found in the third volume of the *Medical Observations and Inquiries*, page 189.

The mezereon-decoction, he informs us, cures no symptom of the lues venerea, but the venereal node proceeding from a thickening of the membrane covering the bones. When the bone itself is affected, it will not cure that, nor does it make any impression on those nodes, which are bony in their contents or are carious; in this last case he says it will sometimes disperse the tumour, but that is all. When there were any other venereal symptoms, he then always gave mercury along with the decoction; and in those cases where it was not given with the decoction in the first instance, he commonly gave the solut. hydrarg. muriat. after the tumours were removed, and the decoction was discontinued.

The first case, which he states, was that of a thickening of the membranes about the joint of the elbow which had withstood a salivation,

which salivation, however, had cured several symptoms of the lues venerea at that time in the habit. This of course must excite a suspicion whether the tumour were then venereal; and therefore the case cannot be admitted as a fair instance of the venereal node; besides, the ceratum mercuriale was applied to the joint previous to the exhibition of the decoction of sarsaparilla with mezereon, and also during its use.

The second case was that of a hard tumour, like a node on the sternum, in which there were no venereal symptoms, nor had any ever been. Therefore this case also cannot be attended to as a fair one, as the node, most probably, never was venereal.

The third case was a true lues venerea with many symptoms of the complaint, besides, a considerable thickening of the joints of the wrist. On this the decoction did nothing, until the patient was salivated, except removing the affection about the wrists. This case very strikingly shews the little efficacy of mezereon in the lues venerea, for these swellings, if they had been venereal, must of course have proved the most obstinate symptom in the case, and not have given way the first. This kind of swelling in the joints is certainly not a venereal symptom, but it occasionally occurs from cold and weakness in these parts, and it is met with in women, for instance, who never have had a venereal complaint in their lives.

The fourth case was one of venereal pains and nodes upon the cranium; in this the decoction of mezereon was given, and the mercurial cerate was

applied to the nodes for nearly six weeks. The patient, it must be observed, had taken a variety of medicines for his disorder before he came into the hospital, and of course many of them must have been mercurial. The patient recovered. This case, however, is scarcely to be considered as a fair instance, for the mercury here probably produced the cure.

The fifth case was that of a node on the left shin with violent pains in the bones, which were cured by the decoction of mezereon: but as this node is only imputed to a gonorrhœa, which the man contracted three years before, and of which he was cured in a few weeks, perhaps some doubts may be entertained of its being really venereal. It is certainly the strongest case given, as nothing of mercury is mentioned to have been previously used. The man, however, left the hospital before it could be decided whether his pains might not return: he was, indeed, expected to come back if they did, but nothing more was heard of him.

The sixth case was that of a node on the tibia of three months standing after the cure of the lues venerea. We may justly have some doubts of its being venereal, as the man had no other symptoms. This therefore can be hardly called a fair case, especially as the tumour is related not to have been entirely removed by the decoction of mezereon.

The seventh case was that of a confirmed lues venerea with various symptoms in the bones, and numerous nodes. The decoction abated the pains and lessened the tumours, but could not cure them: and as

fresh symptoms appeared, the solut. hydrarg. muriat. was joined with the decoction, and given for seven months. As the man still remained uncured, small quantities of mercurial ointment were rubbed in, and then he recovered. This only proves the good effects of mercury, and the inefficacy of mezereon in a real case of lues venerea.

The eighth case was that of a sailor who had a node on each tibia, but who quitted the hospital when the decoction of mezereon had reduced them about one quarter of their size; therefore this case is not conclusive.

The ninth case was of a large painful node on the right tibia, without any other venereal symptoms, imputed to a gonorrhœa contracted nine years before, the man having at this time been married several years. The node was reduced in part by the decoction of mezereon; but, the pain continuing, the solut. hydrarg. muriat. was also given which completed the cure. If this were a venereal node, which probably it might not be if the man's account was a true one, we must even then suppose the mercury was the principal remedy which removed it.

The tenth case. This in a great measure resembles the last: the pain and tumour were lessened by the use of the decoction of mezereon, but the solution of sublimate was given for some weeks to complete the cure. The same conclusion must be drawn as in the former case.

The eleventh case. A confirmed lues, and a node on each shin in an emaciated hectic woman. Bark, mezereon, and opium, lessened the pains and tumours,

and improved her health and strength ; but, to accomplish a cure, the solut. hydrarg. muriat. was administered in pretty considerable doses, and at last it was found necessary to join with it small quantities of the mercurial ointment, which affected her mouth. This of course is an inadmissible proof of the virtues of mezereon.

The twelfth case. A thickening of the elbow of the right arm, and of the metacarpus of the same hand : the patient had been salivated sixteen months before. The decoction of mezereon and the solution of sublimate here failed, till the man was admitted an in-patient in the hospital, when, with a milk diet, the decoction lessened the swellings and the pains, but the mercurial ointment completed the cure, a pain in his head excepted, which remained. This case must also be rejected.

The thirteenth case. A node on the tibia in a confirmed lues venerea. The solution of sublimate was given with the decoct. sarsa. cum mezer. and to that we must attribute the cure which this patient received.

The fourteenth case. A large painful node upon the tibia, of twelve months standing, without any other present or previous venereal symptom. The bone proved to be carious, was laid bare by a caustic, it exfoliated, and the man recovered by the use only of the decoction. There is no proof at all of this case being really venereal ; and therefore it cannot be admitted.

The fifteenth case. A node and caries on the right tibia, in a woman who never had any symptoms of

the venereal disease. The decoction of mezereon and the solution of sublimate together were of little service: the decoction alone was of more use. It is mentioned that she appeared to be of a scrofulous habit. This case must be rejected.

The sixteenth case. A large scrofulous ulcer on the leg, and a thickening of the periosteum; the same disease also on one arm, without any ulcer. It was cured by the decoction of the mezereon-root. This case being mentioned as scrofulous, and not as venereal, must of course be laid aside.

The seventeenth case. Nodes on the shin-bones, which commenced after a lying-in about nine years before the patient came to the hospital; they were attended with much pain, particularly in the night. In this case neither the decoction of mezereon nor the solution of corrosive sublimate succeeded.

These are all the cases given us by Dr. Alexander Russell, and I think they prove nothing as to the power of mezereon to remove venereal nodes. Many of these nodes unquestionably were not venereal, neither did they arise from that cause: and in those cases which were truly venereal, we find that mercury was always administered. It cannot be disputed that the decoction greatly lessened the size of these tumours, even in some of the venereal cases, previous to the exhibition of mercury; yet this is no proof of its correcting the venereal virus, as these tumours, when they are only affections of the membranes, have a great deal of common inflammation attending them, and arise in part from a deposit of fluid between the bone and the membrane; which deposit is the occa-

sion of a great part of the pain which the patient feels. We therefore find that rest, leeches, blisters, and even the opening of them, will relieve the pain and lessen the tumefaction, notwithstanding their dependence upon the venereal action. The mezereon also, as a very powerful deobstruent, most probably excites occasionally the absorption of this fluid, without having any specific effect upon the venereal virus: for, indeed, it appeared to be as useful in those cases which were not venereal, as in those which were such.

The seventeenth case is a very fair instance of these nodes not being always venereal, though bearing a strong resemblance to that disease, both as to pain, &c. for they occurred in a woman, the mother of many children, and who never had a venereal disease, yet had submitted to the trial of mercury in various shapes, for the cure of the nodes, but without success.

Scrofula, we know, sometimes produces these nodes and affections of the bones and membranes; and I have before mentioned that the diseased action of mercury will very often affect these parts in a similar manner. A node, therefore, on the periosteum or on a bone, is no certain sign of the presence of the venereal virus, except it be connected with some other previous or present symptoms of that complaint; and in all those cases, in which there was this connection, mercury was given.

Mr. John Hunter (page 372, on the Venereal Disease) very justly observes, that "The mezereon has also been found to be of service in some symptoms of the lues venerea, such as nodes of the bones; but

their being venereal was taken for granted. The mezereon is seldom given in venereal ulcers of the throat, or blotches on the skin, which of all the venereal symptoms are the most certain, and the most easy of cure ; yet it was conceived that it removed such symptoms as are the most difficult of cure ; but all those cases, in which the mezereon has been given with success, plainly appear not to have been venereal."

Dr. Donald Munro, in his *Materia Medica*, says, that without mercury he never knew the mezereon cure nodes, nor produce any good effects. After much mercury had been given, without effecting a cure, he had then seen it produce great good in cases of blotches, nodes, and ulcers. In truth, the success Dr. Alexander Russell met with in the use of this medicine is not now experienced ; and I presume it is decided that mezereon is no anti-venereal remedy even in the mere case of nodes, but that is often a very good and a very powerful deobstruent medicine in many kinds of tumours. Dr. Francis Home, of Edinburgh, found it a very powerful stimulating deobstruent remedy, and that it removed many tumours besides venereal ones, as those of a scrofulous and of a schirrhous nature : and he adds, that it proved efficacious and serviceable in many cutaneous complaints. As to the cases being really venereal, which, he says, were cured by the mezereon, I conceive that he must have been mistaken, unless he employed mercury at the same time.

If we examine what the late Sir William Fordyce has said upon the anti-venereal powers of the sarsa-

parilla, we shall find strong reasons to suspect that this root deserves the reputation no more than the mezereon. The cases given of its success are, many of them, well-marked instances of the mercurial disease. His first publication on this drug was a paper in the first volume of the *Medical Observations and Inquiries*, (page 149) entitled, "An attempt to discover the virtues of the sarsaparilla root in the venereal disease, by William Fordyce, Surgeon, 1755." Some years after this, the paper was republished by him in a pamphlet entitled, "A Review of the Venereal Disease and its Remedies, with an Appendix." The cases are thirteen in number.

The first case was that of a woman who had contracted the lues by suckling an infected child, and who was dismissed as cured, after a salivation of six weeks. Two months from this time she began again to feel pains in her head, and discovered a return of an ulcer in her throat with many other symptoms, and, notwithstanding the use of mercurial fumigation, the throat ulcerated so dreadfully, that the velum pendulum palati was almost destroyed, and she complained of pains about her palate and nose. Mercurial plasters and the decoction of guaiacum were used, and calomel was given inwardly for a considerable length of time; but, these failing, mercurial frictions were resorted to, and continued for a long time, which are said to have kept the disease in check, but not to have cured it. At last the sarsaparilla decoction was administered without mercury. The patient was now reduced to a mere skeleton, the ulcers in her throat were

so nauseous, and her palate so decayed, that she was become intolerable to herself; but at last, after taking thirty-seven quarts of the decoction, she was restored.

This case, in its latter stages, could be no other than a true mercurial one, for, when it was venereal, mercury easily cured the symptoms; but when it became mercurial, then every symptom grew worse the longer the mercury was continued, and the patient only recovered after it was finally discontinued. The disease in this instance was, no doubt, produced, first, by improper preparations of mercury; and, secondly, by an excessive quantity of it: for more was given to this woman than would be necessary in any two inveterate cases of lues venerea.

Had Sir William Fordyce been acquainted with the mercurial disease, he would not have given this as a proof of the efficacy of sarsaparilla in lues venerea.

The second case is another instance of the mercurial disease, from an excess of mercury after three salivations, which was cured as the last was, by discontinuing the mercury and giving the decoction, except some slight excoriations in the seat of the original chancres.

The third case was truly venereal, and therefore discovered the inefficacy of sarsaparilla in correcting this poison. In this case there were several chancres and verrucæ round the corona glandis; no mercury was given, and a considerably long course of the decoction of sarsaparilla was first tried, but, till he had rubbed in six ounces of the mercurial ointment, the chancres did not heal.

The fourth case, that of a grenadier, appears to be a melancholy instance of the mercurial disease, in an almost incurable state. He was first salivated, and then mercurial alteratives and the decoction of guaiacum were tried; the patient at this time having ill-digested buboes, chancres on the penis, foul ulcers in the tonsils and velum pendulum palati, and universal pains, with large black mortified blotches and sloughs on his shoulders and back. His mercurials were changed for the decoction of sarsaparilla, which, in fifteen days, with two bleedings, removed every one of his complaints, and he was discharged cured. At the end of three weeks or less he returned again with a sore throat and with general pains; the decoction was renewed with advantage, his throat grew better, but as his pains did not entirely leave him, mercurial pills, the decoction of guaiacum, and sometimes mercurial friction were ordered, and country air; he, however, now grew worse, the throat and pharynx were much ulcerated, gummatous swellings appeared on the top of his shoulders, and on the wrists, he was greatly emaciated, complained of a cough and of night-sweats, the decoction of sarsaparilla was again resorted to, and mercury was discontinued. This plan considerably relieved all the symptoms, and he was at last discharged from his regiment: but he did not finally recover.

This surely was a true mercurial case, unless the erroneous and fatal idea be admitted, namely, that mercury cannot always cure the lues venerea. The mercury in this case was either given in too large a

quantity, or improperly managed, in the first instance, so as to produce the mercurial irritation; and the second renewal of the course rendered the disease still more inveterate, probably at a period when, if the mercury had not been given, the new disease would have soon ceased, as the symptoms were beginning to disappear.

This case illustrates the circumstance of the mercurial disease producing gangrene and sloughs, and, in its more chronic and inveterate state, gummatous tumours in various parts.

The fifth case is that of a man who underwent a mercurial course for a chancre only, soon after which he complained of violent pains over his whole body, of head-aches, and of a continual watching, to so great a degree as to render life intolerable. He was unable also to move his limbs, or to stand upright. These symptoms, which commenced during a course of mercury, and were so unlike the lues venerea, could not be venereal. This was most probably a case of rheumatism from cold caught under a mercurial course.

The sixth case is that of a widow lady with several symptoms of the lues venerea, as violent head-aches, blotches on different parts of the body, and tumours on the labia pudendi. She took forty bottles of the sarsaparilla decoction, which removed most of the symptoms, except a large chancre on the nymphæ, and two blotches on the legs, which could only be cured by six weeks persisting in a gentle course of mercurial frictions. This is another decided instance of the inefficacy of sarsaparilla in the lues vene-

rea, for, no mercury having been previously given, the disease remained unchanged in its type. The blotches being removed in part by the decoction only cannot be considered as any proof of its anti-venereal powers, as many other decoctions and modes of treatment, independent of mercury, would have produced the same effect for a time.

The seventh case is that of a lady with venereal blotches and pains in her bones, a node on one leg, and with deafness. In this case the decoction of sarsaparilla and small frictions of mercurial ointment were administered at the same time, which of course destroys every idea of this being any fair proof of the virtues of the sarsaparilla in the lues venerea.

The eighth case is that of a wine-merchant's servant, who persisted for four months in the use of mercurial ointment for the cure of some chancre on his penis. His mouth was little affected by the mercury, and he exposed himself to the cold during the use of it. He first began to complain of general pains in his bones, and at last almost lost the use of his limbs. By repeated bleedings, and taking forty-four bottles of the decoction, he recovered. This case could not be venereal, for the symptoms, incurable by mercury, came on during the time he was using mercury. This was probably partly a rheumatic and partly a mercurial case. The mercury here given was more than was necessary, and the management of the patient under it was very improper, and such as to induce the mercurial irritation.

The ninth case is that of an officer's servant with two incipient buboes, which were twice treated by

mercury; the last course was a very regular one, with the decoction of guaiacum. At this time he had an ulcer in his throat: but this, with the other symptoms, was removed by the above treatment. Six weeks after this symptoms of an affection of his cheek-bone took place which, on being laid bare, exfoliated, and, after he had taken forty bottles of the decoction of sarsaparilla, he recovered.

The carious state of the bone by no means proves that the venereal virus was still present; for the virus might have so injured the structure of the bone in the first instance, that an exfoliation was necessary, though the poison, at the period when the bones began to separate, were entirely removed. No practitioner would think it necessary to continue a mercurial course during the whole process of an exfoliation, or even, as I should think, commence one, merely because a bone was found carious at the end of a regular course of mercurial frictions, which had removed every other appearance of the lues venerea.

The tenth case is that of a woman, who was supposed to have received the lues venerea from her husband. She was first salivated, and she also used Mr. Plunkett's application for this disease; but, after several years continuance of the disorder, during which time she had lost the bones of her nose, and had many other bones about her head laid bare by foul ulcers; she applied to Sir William Fordyce, who gave her the sarsaparilla decoction, both inwardly and outwardly, and restored her in fifty days.

Some doubts may be entertained whether this case ever was venereal; for it is mentioned that it had ap-

peared first in her head, and never in her pudenda. But supposing it to have been venereal in the beginning, there was as much mercury given, or indeed more than was necessary to remove or to suppress the venereal virus, and to induce the mercurial irritation.

The eleventh case is that of a soldier, who took nine and thirty bottles of the decoction of sarsaparilla for the removal of some pains, for which he had before been thrice salivated in the hospital, where he had kept his bed for two hundred and thirty days, and was greatly emaciated. Little doubt can here be entertained but that the pains must have been mercurial, when the decoction was given; for three courses of mercury must have been more than sufficient to have removed every reliet of the lues venerea, especially as the man was salivated.

The twelfth case is of a gentleman's servant, who had spurious buboes of six months standing, and had gone through two regular courses by unction, but without producing any other effect than a partial suppuration in one of them.

Ten bottles of the decoction removed his disease; and twenty more were given for the sake of security.

This case, I have no doubt, was an instance of the indolent or scrofulous bubo before described. The term *spurious*, which is given to these buboes by the author, conveys a pretty strong idea, that he did not think them truly venereal. Had they, however, been venereal, two courses of mercurial frictions must have dispersed them, or brought them to fair suppu-

uration. No one symptom of the lues venerea is mentioned in this case, except these swellings.

The thirteenth case is that of a gentleman, with blotches on his skin, chaneres round the glans penis, ulcers in his throat, and ragged sores about the anus. In this case eight ounces of mercurial ointment were rubbed in, which salivated him plentifully for six weeks; the sores on the anus were also rubbed with the mercurial ointment. He took with his mercury fourteen bottles of the strong guaiacum decoction, and all his complaints left him but the sores about the anus, which in a few days, however, were cured by the decoction of sarsaparilla, when the mercury was no longer used.

What proof from this can be drawn of the anti-venereal powers of sarsaparilla? A very powerful course of mercurial frictions cured all the symptoms of the lues venerea, except the sores at the anus. And why did it not cure them? Because they were rendered locally mercurial, by mercury having been imprudently rubbed into them. According to Sir William Fordyce's idea of the disease, these sores should have been the last suspected of being venereal, for more mercury was here applied than to any of the other appearances of the disease.

These are all the cases which the author has given us in proof of the virtues of the sarsaparilla root in the venereal disease; and yet it is perfectly clear, that in those cases, which were really venereal, as the third and the sixth, the sarsaparilla was of no service; for it was necessary to use mercury before the patients could be cured. The others, (the fourth

case only excepted, which was probably almost an incurable instance of the mercurial disease) were cured easily by desisting from the use of mercury, and giving large quantities of the strong decoction of sarsaparilla.

This drug is undoubtedly a medicine of considerable efficacy in the mercurial disease; but it is also to be observed, that in most of these cases from forty to fifty quarts of the decoction were administered. This large quantity could not be taken in a short time, therefore a period of some length was given for the mercurial irritation to wear itself out of the habit, for the mercury was generally given up when the decoction was ordered.

The cases which were successfully treated by the sarsaparilla, I have mostly pointed out as fair instances of the mercurial disease, agreeably to that opinion which I have before offered on this complaint: for in these cases we find that great quantities of mercury had been given, and had produced much mischief, antecedent to the use of sarsaparilla.

We will now say a few words on the author's remarks on this drug, and see how far they establish its anti-venereal powers.

He observes *that* the decoction relieves venereal head-aches and nocturnal pains; and, if persisted in, he believes that it will always cure them.

That, it cures, after the use of the mercurial ointment, sores and ulcers which may remain in the throat, nose, or palate, or among the spongy bones.

Sarsaparilla promotes the cure of venereal blotches and moist sores; but, without the assistance of mercury, there will be a danger of a relapse.

In a simple recent chancre it is of little service ; but as to chancres and buboes, which will not heal nor dissolve after the use of mercurial unction, it will often cure them, and is always of manifest service.

Sir William Fordyce (page 136 in his pamphlet) says also, "It seems probable that the sarsaparilla root is only to be depended on in venereal cases where mercury has failed, at least where it has preceded the use of the decoction, or when it is combined with it ; and therefore it is not to be trusted to alone, unless in such circumstances." "Mercury will alone, in general, cure most venereal complaints ; the sarsaparilla will, perhaps, always cure what resists the power of mercury ; it is therefore probable, that we may find in mercury and sarsaparilla, properly combined, a certain cure for every case that can be called venereal."

This is the substance of the author's remarks on the use of the sarsaparilla in the lues venerea, and, like the foregoing cases, they prove nothing more, than that, in recent cases of the disease, and where no mercury has been given, it cannot cure, unless mercury is joined with it ; but that in those instances, as Mr. John Hunter emphatically remarks, (page 372 in his Treatise on the Venereal Disease) "where mercury has done its best, or its worst," it apparently removes the disease very readily ; for in truth the disease in these cases is no longer venereal, which is sufficiently evident from the mercury no longer acting as a remedy, but as an exciter of the morbid action.

In Sir W. Fordyce's first remark, as to the actual cure of nocturnal pains and venereal head-aches, he does not assert that the decoction will succeed, but he only believes it can or may do so; therefore this must be considered as a presumption, without any proof to establish it. The more obstinate cases of chancres and buboes it cures, as he says, readily, but on the recent chancre it has no effect; this is so contrary to what we should expect in the use of every remedy which we employ, that I think it at once proves that it is not the venereal disease which it cures, when it is successful.

The late Dr. Cullen had a very mean opinion of sarsaparilla. He mentions it, in his *Materia Medica*, as an inert or useless medicine; but in this I conceive that he was much mistaken.

Mr. John Hunter (page 375, on the Venereal Disease) says, "whether sarsaparilla is ever of service in the venereal disease, is much to be doubted: it is easy to conceive it, in many cases, to be of use in preventing the formation of the disease arising from mercury." He also, in another place, gives us the result of a comparative trial between this drug and guaiacum, of which I shall presently take notice.

We may therefore conclude, that sarsaparilla is no antidote or specific for the venereal virus; but we shall find it a powerful remedy, when united with others, in the disease which is occasioned by mercury. It is certainly a gentle corroborant, and, by restoring the weakened fibre, it checks diseased action. It is also in decoction, when largely given, a very powerful promoter of the secretions, probably so, as I before ob-

served, from the quantity of watery fluid which is taken with it. This effect of sarsaparilla has been much overlooked ; but is of considerable importance in a disease, which in part depends upon a morbid check on the secretions. Dr. Donald Munro found the efficacy of this decoction much increased by the addition of the antimonial wine. This decoction, as we are very properly cautioned, will scarcely keep sweet for more than two days. I must also observe that some people, on their first taking it, find their stomachs much affected, and they often complain of a swimming in their heads, and the pulse becomes quicker and fuller than before ; but these symptoms abate in a few days, as the secretions become freer.

GUAIACUM.

This was the first supposed specific which was employed for the cure of the lues venerea, and the earlier writers on this disease very often highly commend its efficacy ; but whether these commendations were well founded, at this distance of time we cannot easily determine. Mercury was not then known to be a remedy in this complaint ; and they had no other than guaiacum. We might sometimes be led to ask, whether the venereal virus were at that time *exactly* of the same nature, as we now generally find it to be ; for, if we judge of the disease from the relation of those who first wrote upon it, there were some symptoms then which very much differ from the modern lues venerea. Its malignancy appears to have been much greater at that time. We have never known

that it was propagated in any other way than by the actual application of the virus ; but they describe it as sometimes contracted by the breath of an infected person, which indeed may be, and most probably is, an error arising from their not having sufficiently at that time studied the disease. I have mentioned when I was speaking of the mercurial chancre, (and a similar account may be found in Mr. Benjamin Bell and other writers) that now and then a more virulent kind of lues venerea appears than the common one. Perhaps then, from some small difference in the nature of the virus, and likewise from the difference of climate, guaiacum formerly was a more efficacious remedy in the lues venerea than it is at present ; for we can hardly discredit entirely all the accounts which have been handed down to us of its success.

We now put no confidence in it as an anti-venereal. Mr. Hunter, indeed, says, (page 368, on the Venereal Disease) “ that on using it externally in one case of venereal blotches, it entirely removed them for a time ; but as they returned again, he was obliged to cure the patient by mercury. The sarsaparilla, when used in the same manner, produced no effect upon them. The guaiacum, given internally, appeared on trial at first to produce an effect equal to its external use ; but the result was the same.

The guaiacum, though it is not a specific for the lues venerea, is, however, a good, warm, stimulating sudorific and a deobstruent medicine, in many cutaneous disorders. We join it sometimes with sarsaparilla in decoction ; and in weakened constitutions we join

it to mercury with advantage, and especially where there are blotches.

CHINA ROOT

Was very early considered as a remedy in the lues venerea. I believe few would be found in Europe, at this day, who would allow it to possess an anti-venereal property, though it is admitted as an ingredient in many syphilitic decoctions. The late Dr. William Woodville (in his *Physical Botany*, vol. 4, p. 67) says, that "it contains a considerable share of bland nutritive matter;" and Dr. Donald Munro observes, "that the Chinese consider it as a powerful strengthener and even a fattening remedy; and that they eat it boiled with other vegetables."

It is no doubt a slight sudorific, and may be employed with advantage, as a corroborant, in the mercurial disease.

SASSAFRAS.

Both the wood and the bark have been employed in syphilitic decoctions under a supposed presumption of their correcting the venereal virus; but on no better grounds than the China root just described.

It may prove a very useful medicine in the mercurial disease, as it greatly promotes the action of the skin and kidneys, and is a very good stimulant.

It is sufficient barely to mention that the roots of the bardana, the astragalus excapus, the saponaria

officinalis, or the lobelia syphilitica, &c. &c. have at different periods been all tried, under the expectation of their removing the lues venerea; but in practice they have discovered no virtues nor qualities sufficient to encourage us to hope any thing from their use.

OPIUM

Has also, within some years, met with advocates in support of its possessing powers of correcting the venereal virus. It was first employed under this supposition in the British Military Hospitals in America by Dr. Frederic Michaelis (see London Medical Communications, vol. 1, p. 307); but the experiments which have since been made have, as I believe, almost entirely destroyed the favourable impression which his account had occasioned. Indeed, to say the truth, many of his cases appear to have been instances of the mercurial irritation, when much advantage would of course accrue from the use of opium largely administered.

It has been tried by some of the first practitioners in a variety of fair venereal cases, and in courses of even a dangerous and mischievous extent, without any impression being made on the disease.

In Mr. John Hunter's Treatise on the Venereal Disease (page 375) mention is made of a case where two scruples were given in a day without success.

In some cases it appeared to stop the progress of the complaint for a time, and removed venereal blotches; but it produced no permanent cure: and

this, I conceive, it might readily do, by diminishing diseased action, pain, and irritability. It may have, and it has, sometimes the same effect upon the cancerous virus; but in neither case does it prove a specific in correcting, or in removing, the poison. If opium had proved a remedy in this disease, even then it would not have been preferable to mercury; for, from the large quantities which must have been given it would have been more mischievous than mercury.

As these various medicines, of which we have been speaking, are of use in the mercurial disease, and sometimes in the venereal, when united with mercury; it may very properly be here noticed, that their efficacy is sometimes much increased in composition; and much attention, when we use them, should be paid to the state of the patient's constitution. Guaiacum and mezereon may be too irritating in many cases; and sarsaparilla and China root, from their being milder and less stimulating, would answer better. I have no hesitation in saying, that the sarsaparilla root produces, in most cases, effects very superior to the rest; and that it should be relied upon more than any of them. We may place the guaiacum and mezereon next, as they certainly have great deobstruent powers on cutaneous affections.

The decoctum lusitanicum, or Lisbon diet drink, is a composition of most of the above roots; and was in great estimation, some years ago, in supposed obstinate venereal cases. In the mercurial disease I have no doubt of its being a very useful remedy. Dr. Donald Munro (in the third vol. of his *Materia Me-*

dica, page 173) has given us the following formula for it.

“Take three ounces of each of the roots of sarsaparilla, and of red and white saunders; half an ounce of mezereon root, and as much of liquorice root; an ounce of each of the woods of guaiacum, rhodium, and of sassafras; and two ounces of crude antimony: mix them, and infuse them in ten pints of boiling water for twenty-four hours, and then boil down the liquor to five pints, and strain it through a cloth, and let the patient take from a pint and a half to two quarts daily.”

Mr. John Hunter (in page 274 of his Treatise on the Venereal Disease) has given a receipt of a German diet drink, which is worth our attention.

“Take of crude antimony, pulverized, tied up in a piece of rag, and of pumice stone pulverized tied up in the same, of each one ounce; China root sliced, sarsaparilla root sliced and bruised, of each half an ounce; ten walnuts with their rinds, bruised; spring water, four pints; boiled to half that quantity; filter it, and let it be taken daily in divided doses.”

The decoction of the woods to be found in Lewis's Dispensatory has also been of service.

The compound decoction of sarsaparilla, described in the London Pharmacopœia, is an elegant substitute for these different diet drinks, and a far less troublesome composition for common use.

Dr. Donald Munro (*Materia Medica*, vol. iii, page 174) gives us the following formula.

“Take of mezereon root one drachm, of sarsaparilla root three ounces, and infuse them for a night

in three pints of boiling water; and in the morning boil this liquor to a quart, adding, a little before it is taken from the fire, a drachm of bruised liquorice root; and, after it is strained, adding sixty drops of antimonial wine. The patient is to drink this quantity daily."

This is also a very simple and elegant form for a diet drink; and putting the antimonial wine in the place of crude antimony is, in my opinion, a good alteration; but I think the dose is too large to be daily repeated. Sixty drops a day, on many stomachs, would act as an emetic; if not, I should fear, by its being continued for any length of time, that the patient's strength would be much reduced.

Dr. Munro recommends it in those cases of blotches and ulcers, which remain after the free use of mercury; and most of these cases are, beyond a doubt, mercurial.

SECTION VIII.

Observations on the present treatment of the Lues Venerea, in which some alterations in the mode of using Mercury in this complaint are proposed, as the best means of preventing the Mercurial disease.

WHEN the various causes, which favour the production of the specific diseased action occasioned by mercury, are well considered, it must be very evident that the prevention of this disease may best be accomplished by a different and more attentive mode of administering mercury in the lues venerea. This I offer as my chief reason for entering upon a subject which otherwise would be foreign to this Inquiry.

I have always thought that the rules laid down for conducting mercurial courses were too general; and that the different stages of the lues venerea have not been pointed out with that precision, which is necessary for our being able to treat each stage of it accurately, according to its different degree of malignancy. A course of mercury, very sufficient perhaps for the disease at one period, may do little to remove it at another; and I am the more convinced of the necessity of some alteration being adopted in the cure of the lues venerea, since I have had a better acquaintance with the mercurial disease; for I am now satisfied that there are many preparations of mercury, and many circumstances in the treatment permitted, which are not

only unnecessary, but are really so hurtful that they cannot be too soon corrected.

We must first remember, that all the saline preparations of mercury have, from their violent action on the constitution, a natural tendency to produce the mercurial disease; and I should therefore recommend their being entirely discontinued in the lues venerea, substituting the use of mercury simply divided by trituration in the form of an ointment or of a pill. The only favourable circumstance attending the exhibition of the former is, that they attack the venereal virus more rapidly, and in some cases it is of importance to know this. But here again, I would propose to restrict the practice of one of these preparations, namely, the hydrargyrus muriatus,* and this to be continued no longer than whilst the pressing nature of the case requires it; for when that is passed, the use of this medicine should be immediately discontinued for triturated mercury.

The pressing cases, to which I allude, are those where the venereal ulcerations in the nose, the palate, the penis, &c. have proceeded to such a critical extent, that, if they be not immediately checked, the organic destruction will be such as no after-cure can remedy the local evil, or, to speak in the plainest terms, can restore the lost parts. In these cases, I have known considerable doses of the solut. hydrargyri muriati sometimes do more in twenty-four hours, in checking the progress of an ulceration,

* *Hydrargyrus Muriatus* is now called, in the New London Pharmacopœia of 1809, *Hydrargyri Oxymurias*.

than frictions would have produced in four days, during which period, perhaps, an irremediable evil might have been the consequence. *In such cases only*, would I admit the use of a saline mercurial, leaving it off, as I have before observed, at the instant when the ulcerative process was checked; being myself fully convinced, that the longer it was continued, the less beneficial it would prove, the greater would be the hazard of producing the mercurial irritation, and the probability would be less of completely curing the patient afterwards.

When we do give the solut. hydrarg. muriat. we shall do well to join with it the decoction of sarsaparilla, as the mercurial irritation, from the secretions being promoted by this drink, will be less likely to take place; and in fact we find that the medicine acts with more power, whenever we follow this practice. I must here observe, that the decoction is given with a similar advantage during mercurial frictions in all cases of confirmed lues venerea, in which the strength of the constitution is impaired, or when there are any eruptions on the skin, or pains in the bones.

In answer to the objections which I have made to the use of saline mercurials, I know it may be said, that all the preparations of this kind are not equally active or hazardous; and that calomel, for instance, is very generally and successfully given in the lues venerea. Yet I must still beg leave to give my opinion, that it is an improper medicine in this disease, first, as it possesses no powers superior to the pilulæ hydrargyri of the London Pharmacopœia; and se-

condly, though it is a mild preparation of mercury in comparison with many others, yet, as a saline one, it is subject to accidents, and has often brought on the mercurial irritation in cases where frictions, or the pill just mentioned, most probably would not have brought it on.

The *hydrargyrus acetatus*,* a solution of quicksilver in the vegetable acid, many have looked upon as a preparation so mild, that it might be employed with great safety and advantage in venereal cases. I confess I have never made trial of it. I should, however, conceive that it had no advantage over calomel, but had all its disadvantages. The *pilulæ hydrargyri* I consider as less likely to disagree with the bowels than any other preparation, and I would therefore confine my practice to this pill in every internal exhibition of mercury, except in the cases before mentioned, in which the solut. hydrarg. muriat. as a medicine of very active powers might, for a short time, be used to answer a particular purpose.

But it is, in my opinion, on mercurial frictions that we ought to place our chief dependance in the cure of the lues venerea; and particularly so if the disease has advanced beyond the first stage of infection. The bowels indeed will seldom bear, without their being disordered, the quantity of mercury necessary to remove the infection, when the whole is to be administered by the mouth; and we know that mercury, by

* The *Hydrargyrus Acetatus* is omitted in the London Pharmacopœia of 1809.

friction, disturbs the constitution less than mercury given in any other way, and acts with more certainty; that is, it is less liable to interruption, and can be employed in larger quantities. I admit, that some patients consider this as the most disagreeable mode of using it; but this objection can have no weight when we balance it with the safety of the patient. A part, indeed, of the mercury may be given by the mouth to lessen the quantity rubbed in, and this is a practice which I sometimes follow.

Having determined on what mercurials we mean to employ, the next consideration is the state of the patient's health, and the progress which the infection has made. If we find him very irritable and plethoric, his pulse hard and quick, and if there be any sores or ulcers, irritable and inflamed, we certainly should not begin upon mercury without some previous treatment. It will then be prudent to take a few ounces of blood from the arm, and to direct a dose or two of gentle physic, with a more abstemious diet than usual. This is a good old cautious mode of practice, and, as I think, fallen too much into disuse. The stimulus of mercury, superadded to a plethoric habit and perhaps to an inflammatory diathesis, must always endanger the patient's falling into the mercurial irritation; I mean, if the principle before laid down be true, that every kind of extraordinary excitement in the habit predisposes it to the mercurial irritation. It is not, however, in every case that this plan of previous treatment is necessary; for, where there are no signs of plethora or of an inflammatory diathesis, it would be useless to proceed thus. If any low fever

or epidemic prevail at the time, we should be more cautious in the use of the lancet.

If the patient is of a thin, hectic, weak, nervous habit, we should, on the contrary, direct a generous strengthening regimen with wine, bark, country air, and milk to restore him, previous to administering the mercury, and to support him during its use; for it is equally true, that a certain state of weakness favours morbid irritability, as much as the disposition before described.

The constant tendency of mercury to excite its diseased action having been much overlooked, the necessity for these precautions has not been so obvious; especially as patients frequently are cured, even though they imprudently are leading the most irregular lives, and sometimes drink hard through a whole course of mercury. It is to be regretted, that the late Mr. John Hunter should have expressed himself so inconsiderately on this point, (in page 349 of his *Treatise on the Venereal Disease*); for after asking what bad effects can arise from drinking wine? or what effects can walking in frost and snow have upon the operation of mercury, either to make it affect any part sensibly, as falling on the glands of the mouth, or to prevent its effect on the venereal irritation? he adds, "In short, I do not see why mercury should not cure the venereal disease *under any mode whatever of regimen, or of diet.*" It is deeply to be regretted, that his theoretical ideas on this subject should have closed his eyes so unhappily against that experience, which he must have had of the dangerous consequences of such irregularities; and how often

his patients must have remained uncured when they acted in this manner. Had Mr. Hunter been as fully acquainted with the nature of the mercurial disease as he was with that of every other branch of his profession, he would have been convinced that no plan could be pursued more effectual for exciting this complaint, than that of inattention in the patient to all caution in regimen and diet when under mercury, which he so fatally appears to sanction.

In speaking of the causes which favour the production of the mercurial irritation, I have mentioned the bad effects resulting from exposure to cold under mercury; as cold checks the secretions of the mouth and skin, and therefore should be carefully guarded against during a mercurial course. I have, indeed, no hesitation in saying that, in every instance of the lues venerea, the cure would be effected with more certainty, with less interruption, and in a shorter time, if the patient would consent to confine himself to his room and in flannels during the course of the mercury, but however earnestly this may be wished by the practitioner on the part of his patient, I fear that it will not always be complied with. If we consider even the effects which a common cold produces in those who are taking mercury, it should induce us at least to persuade them, and in an earnest manner, to be more attentive than they generally are in this particular. A mercurial cold is a very obstinate complaint. The lungs often partake of the disease, the parietes of the mouth and face will swell violently and inflame, and sometimes a venereal inflammatory rheumatism takes place, the patient not being able

from pain, tumour, and inflammation, to move a single joint for a long time. Still this, unhappily, is not, as I have just observed, the worst mischief. The mercurial irritation often ensues from the effect of cold only; for the less the affection of the mineral is in the way of increasing the secretions of the skin and mouth, the less also is its anti-venereal operation. Therefore the alterative mode of giving mercury, though the most pleasant, is nevertheless the longest and the least safe.

When we cannot make the patient confine himself entirely, it will be at least prudent to forbid his exposing himself to the evening air, to sudden changes of heat and cold, or to north-easterly winds. We should recommend him to wear a flannel waistcoat and drawers during the period he is taking mercury, and for some time afterwards. In warm summer weather exposure to the air is of course less hazardous.

In the more confirmed stages of the lues venerea, absolute confinement becomes indispensably necessary.

Another caution of equal importance to be observed, is this; never to begin upon a course of mercury, if possible, while the patient is under the influence of a cold or fever, most especially if it affects his chest. If we are careless on this point, we shall not only run the hazard of increasing his complaint, but we shall be disappointed in the action of the mercury. The secretions being already checked will prevent the action of the medicine upon the mouth and skin; the general inflammatory irritation will be increased, and the mercury will soon excite its own specific dis-

eased action. If we confine the patient a few days to the house under regimen, and with that preparation which I lately mentioned, before we venture on the mercurials, we may rest assured that, instead of losing it, we shall have gained time by this temporary delay.

I believe there is no part of the regimen so little attended to as the caution about cold and exposure to the weather; for practitioners sometimes are too apt to think, that if they can prevent their patients from catching cold while they are taking mercury, nothing else is to be dreaded. But I would wish in this place most particularly to call the reader's attention to the first stage of the mercurial disease, where I have endeavoured to shew, that this complaint very often occurs, and continues for a considerable time, in that mild and almost invisible state in which the true anti-venereal action of mercury is lost: yet the symptoms of the complaint have not so altered from their venereal look as to give any indication of the change of type in the disease. Nay, it is only by observing the stationary situation of the disease that we can at all detect what has happened; and even to do this requires considerable attention and practice. It appears from hence that we may often be giving mercury to no purpose, but a mischievous one, if we let our patients expose themselves as they please to the weather during a mercurial course; for every grain of mercury, which is given after it has lost its anti-venereal powers, is a grain too much.*

* The following case illustrates very well how a freedom in the secretions and excretions of the body, in proportion to the quantity of mercury given, prevents its producing its specific diseased action. A

Our next inquiry should be to learn in what stage of infection the patient is when he applies for a cure. I think too little attention has been paid to this point. We talk of recent and of old infection, and of confirmed stages of the lues venerea; but I think, we might mark out with some degree of accuracy several different stages, much to the improvement of the mode of treating it.

I shall attempt to offer a description of four stages of the complaint, which will each require a difference as to the quantity of mercury to be given.

The first we will suppose to be, where the infection has been recently received, and without any decided marks of absorption having taken place, the chancre, or chancres, not being large or malignant, or perhaps having been immediately removed by the use of the lunar caustic.

healthy boy about four years old, living in the country, was ordered eight grains of calomel with a small quantity of sugar, to be divided into eight powders, and one of them to be taken every night. By some mistake eight powders were sent him, with eight grains of calomel in each; and the mistake was not discovered until he had taken several of them. The child, however, had suffered very little from the error, nor had the parents either discovered or suspected the circumstance. He had had a gentle purging during the time, the glands about the mouth and throat were swelled, and he had spit a good deal; but the parts were not inflamed nor painful. On inquiry it was found that he had sweated most profusely from the first night of taking them; his breath was not in the least fœtid, and in the day time he made considerable quantities of urine. By this freedom in the secretions the bad effects of these large doses of calomel were obviated, fever heat was prevented, and likewise the specific mercurial irritation. I know that children often bear mercury better than adults, and are less irritated by it.

In the second stage let us suppose the infection to have been received some weeks, the chancres to be of some size, and a visible appearance of the ulceration in them spreading, with perhaps a phymosis or an approach to it, with signs of absorption from the pain in the chancres passing to the glands in the groin, and a swelling and hardness in these glands.

In the third stage we will still suppose that chancres are present, that the infection is of long standing, with the most decided symptoms of a general contamination, copper coloured blotches on the surface of the skin, ulcers in the throat, pains in the bones, or perhaps considerable ulcerated buboes. In this stage it very often happens that a fresh infection has been taken in a habit which has been several times affected with the lues venerea, and but imperfectly cured.

The fourth stage we may imagine to consist of any number of those symptoms which we have just mentioned, with evident symptoms also of the infection having spread to the periosteum, to the bones, and to the tendinous fascia, with tumour, pain, and ulceration.

In the first stage it is not always certain that an absorption of the venereal virus has taken place, yet it is always right to give mercury upon the bare suspicion that this may have happened, but if we suppose that the virus has entered the circulation, we may reasonably imagine, that a careful exhibition of a proper mercurial course, for four or five weeks, will be sufficient to remove the disorder.

The second stage requires a very decided course

of mercury, and its true action ought to be well seen in the habit: the patient here should confine himself to the house, and we should be constantly on the watch, that the real action of the mercury be not destroyed by its morbid action. The duration of the course must be some weeks longer than in the last stage, depending, however, a great deal on the favourable or unfavourable operation of the mercury on the patient's habit.

In the third stage all the foregoing cautions are requisite. We ought not to permit the patient to quit his room, and we should observe that the mercury produces its full action on the mouth and on the system in general, without producing its diseased action either locally or generally, which, from the ulcers present, it will be very liable to do. I should say, that its decided action on the mouth and on the system consists in its increasing the pulse, the secretions of the urine and the perspiration, in producing a slight, but not a profuse, ptyalism, a fætor of the breath, and a metallic taste, particularly after fasting, a heat, tenderness, and dryness in the mouth, with a tenderness and receding of the gums from the teeth. This state of action from the mercury will be found to be most powerfully anti-venereal; but if cold were now to be taken, or if this action were urged much farther, the mercurial diseased irritation would soon take place. We must therefore keep on the watch, that the venereal symptoms are all in a progressive state of amendment; for should they become in the least stationary under this full action of our medicine, we

must desist from the use of it for some days, till we observe that the symptoms again begin to amend.

Perhaps nine or ten weeks of mercury may be requisite to remove all the infection of this stage. The compound decoction of sarsaparilla is here given very often with great advantage; for some diet drink, to support the secretions, is very proper. Before we begin upon the mercury in this stage, we ought to be very particular in observing the rules laid down for preparing our patient for it.

In the fourth stage, if the bones be very generally diseased, a gentle salivation of some weeks, under absolute confinement to the chamber, is requisite: and, if we are not very watchful, we shall find that the mercurial irritation will interrupt our cure, and render a second course of mercury at last necessary. The best way to avoid this, is to keep the secretions very free by warmth and by flannels; and it is adviseable by diluting drinks to obviate, as much as possible, real fever and improper irritation. We must also take care that neither the perspiration nor the ptyalism are too profuse; for in either case we shall not succeed in our cure, either from the mercury being carried off too fast, or from the true action of it being prevented. The cure in this stage must of course be very tedious. The manner in which the patient bears the mercury, and the malignancy of the symptoms, will best direct us how long we must continue the course.

With respect to the quantity of the mercury to be administered in these several stages of infection, that must in a great measure depend upon the effect it

produces in each individual case. Constitutions are so differently affected by this mineral, that half an ounce will do more in some cases than two ounces will in others.

In the two first stages we may give the mercury both externally and internally, to lessen in part the number of frictions, and especially as our patients will seldom entirely confine themselves: but in the two latter stages, where keeping the patient within doors becomes absolutely necessary, we had better only employ mercurial frictions. We shall hence judge better how we proceed in the cure, and also with more certainty.

When the patient submits to confinement, we should endeavour to bring the mercurial action decidedly to the mouth at the same time that we see it is acting moderately on the rest of the system. We must, however, feel our way, as it were, lest we bring on a sudden salivation, by giving the mercury in too large and in too quick doses at first. In this case we should find it very troublesome to manage; we should have ulcers and inflammations in the mouth and throat. When the habit is a little used to the mercury, we may then with great safety begin to increase the quantity. In some irritable habits we can only venture on half a drachm of the unguentum hydrargyri fortius at a friction, especially if there be much debility or weakness about the patient, and if we are afraid of his constitution suffering from the activity of the medicine.

In most other cases we may begin with a drachm, or a drachm and a half at a friction, and sometimes

two drachms. After the first friction we should wait a day or two, and then repeat it. When we find the frictions begin to produce a good deal of heat and dryness, and a disagreeable taste in the mouth, we must desist for two or three days; for if we push on at this period we shall be in great danger of occasioning an unruly salivation. After we have brought the mercury into moderate action, we may then continue the frictions every other night, and increase the quantity a little, if we began with a small dose, observing invariably this rule, namely, that as soon as we discover the remedy to lose its effects in removing the venereal symptoms, either from their becoming stationary or from their growing worse, to desist immediately from its further use; for we are then to suppose some change has taken place in the nature of the disease, to which mercury is a poison.

This change, I need hardly here say, is the coming on of the mercurial irritation, and which we may check the instant we leave off the mercury; and by only waiting a few days, or perhaps a week, it will quite cease, and then we may try our frictions again: but, if we excite this irritation to any considerable height, then an interval of many weeks, perhaps, will be requisite to remove the new disease.

If we give mercury internally, I have found in general a friction of one drachm of the unguentum hydrargyri fortius twice or sometimes thrice a week, with a pill of five grains of the pilul. hydrargyri every night and morning, to be sufficient to produce a moderate and decided anti-venereal action.

When mercury shows no disposition to produce an anti-venereal action, or to affect the mouth or secretions, a very small quantity will produce the morbid action.

In such constitutions we should only give the mercury under confinement, and remove every cause of irritation: we may also with advantage order the use of the warm bath with sudorifics. This will lessen the inflammatory diathesis, promote the excretions, and very often bring the mercury kindly to the mouth.

The warm bath is useful if the surface will not readily absorb the mercury: it is also very serviceable after long courses of mercury, with a few doses of physic, not only in promoting the patient's speedy recovery from irritation, but often in preventing a very disagreeable eruptive complaint on the face.

Before I quit this part of the cure I must again repeat, that I have found that the observation of intervals between our mercurial frictions is a practice of great security against the mercurial disease. By so doing we allow the constitution to recover itself in part from the irritation after each operation; but more especially are these pauses or rests necessary, when we observe that we are not making any progress in our cure, and that the mercury does not act with the same effect as it did at first. The practice of continuing and increasing the frictions at this time, under an idea that more of the remedy is wanted, cannot be too much reprobated.

The next circumstance of consequence in our cure is the treatment of the local symptoms. We are not

only to guard against the mercurial irritation, as a general affection, but also as a local disease; and this latter point must be principally aimed at in our local treatment of those wounds and ulcerations which are venereal, and which attend the general taint of the constitution.

The first rule we should invariably pursue is, never to use a mercurial application to a wound or ulcer.

When speaking of those causes which excite the mercurial irritation, I endeavoured to prove what extensive mischief arose from the practice of applying mercurial precipitates and washes. I will here add that, notwithstanding practitioners so generally recommend them, and consider them as useful in promoting the cure more speedily, they have no effect of this kind: even when they do no mischief they do no good. I must also add, that the same sores being kept perfectly clean and sweet, and as free as possible from all local irritation, the dressings being of the simplest and mildest kind, as the unguentum spermatis ceti,* or, (what is better for chaneres) a wash of the aq: lithargyri acetat:† diluted, the cure in that case will proceed with more expedition and with less uncertainty. The mercury generally administered will, at a proper period, entirely remove the local infection, and will reduce the wounds and ulcers to the state of common wounds where no specific irritation

* The *Unguentum Spermatis Ceti* is now named, in the New London Pharmacopœia of 1809, *Unguentum Cetacei*.

† *Aq: Lithargyri Acetat:* is now named, in the London Pharmacopœia of 1809, *Liquor Plumbi Acetat:*.

exists; and in this state they will heal gradually and kindly, nothing being in the way to interrupt the healing progress. It is wonderful that the practice of using topical mercurials should be so very general, for every practitioner must have observed how often they prevent the healing of a local wound; nor can he persuade himself that the taint of the habit is at all corrected by these partial applications of precipitates and of washes. If it is imagined that venereal wounds want stimulating, and that mercury is of service this way, I am convinced that it is a great mistake. The wounds and ulcers have generally a good deal of common inflammation about them; they have of course the specific irritation of the venereal virus; and, as we must give mercury in some way, they, with the rest of the habit, partake of the increased stimulus produced by a mercurial course. A caustic may destroy a recent chancre entirely, by destroying, in fact, the whole surface which was diseased; but the application of a mercurial dressing will not produce this effect; for mercury, when thus applied, is no specific to the venereal sore, no counter action to the venereal irritation; as it acts either by simply increasing the common irritation about the sores, or, what is more likely, it occasions the true specific diseased mercurial action. But practitioners will contend, that chancres are repeatedly cured this way. Do they recollect that, if the local mercurial should fortunately do no mischief, the healing may be owing entirely to the general exhibition of the mercury? I must confess that I see no rational grounds for the use of topical mercurials, and I consider them as the

constant occasion of the mercurial disease; having before very fully stated that mercury *to a recent wound* is always a poison, and is often such to an ulcer; and in this opinion I am not singular.*

All venereal sores should be kept very clean by washing them carefully as often as the discharge requires it. Bread and milk, or linseed meal poultices, may be useful to any venereal sore or suppuration which is not on the penis; but when applied to that part they are exceedingly apt, from their warmth, to excite symptoms and affections, which will obviate or prevent all the good we expected from their application. When a phymosis threatens, and is likely to be troublesome from the ulcers about the glans penis and prepuce, the aqua lithargyri acetat:† diluted, should be injected frequently to wash the ulcers; we should confine the patient to a very strict anti-phlogistic regimen, and, if nothing forbids, we should take eight or ten ounces of blood from his arm; and if it should be necessary, we may afterwards take some more by leeches. The blood drawn will, in general, exhibit a very buffy appearance, and the patient's pulse will previously direct us how much he will bear to be reduced. So far we shall be reducing common irritation and inflammation; but this is not all which we have to do. The disease will not be removed unless we also exhibit a mercurial course to correct the venereal virus: and we should therefore at the same time direct moderate mercurial frictions, which will

* See Mr. Hunter on the Venereal Disease, and Dr. Adams on Morbid Poisons.

† See note 2nd, page 200.

produce a speedier effect, from our care in removing common inflammation.

I have earnestly recommended the disuse of topical mercurials. I wish, likewise, that no stimulating applications were used to venereal chancres and sores while the patients were under their mercurial courses; for they all tend to excite that degree of irritation which is so favourable for their taking on the mercurial action, from the mercury being thrown into the general habit. The applications of vitriols, of spirits, of stimulating ointments, and of numerous other remedies, which we find in books, for chancres, should be all considered as improper.

There is one exception to be made to this rule in respect to recent chancres, (which I have, indeed, before partly considered under the head of the mercurial chancre) I mean as to the use of the lunar caustic; but here the same principle of avoiding irritation is ultimately in view.

When chancres are recent, not violently inflamed, and do not occupy any considerable portion of the glands penis or the internal part of the prepuce, before we begin upon the mercury, we may destroy these ulcers by the lunar caustic. This at first produces sloughs, which in a day or two become clean healing surfaces, free from the venereal virus, and these perfectly close in three or four days more. It sometimes, indeed, happens that the caustic must be used a second time; but seldom oftener.

The ingenious Mr. Hunter first introduced this practice, and by it we very often prevent the absorption of the venereal virus; at least we have nothing

to do afterwards but to correct the virus in the general habit, without the risk of rendering any wound mercurial.

When the chaneres are very considerable in size, or numerous, or of the apthous kind, (so well described by Mr. John Howard) and when the infection has been long in the habit, the use of the caustic is hardly admissible. The diseased surface is then too large, and too irritable, to be completely destroyed, without a very considerable additional inflammation being produced by the application.

Many objections have been made to the use of the lunar caustic in recent chaneres; but, I think, without any good foundation. It has been suggested, that the cure of the chaneres in this way is the repelling the virus from the part to the constitution, and so hastening on the secondary symptoms. If the chaneres are not cured, it is not certain that the virus must get into the habit by absorption; it being repelled, must therefore be the same thing.*

But is it not more reasonable to suppose, that so far from a repulsion taking place, that the venereal virus is actually destroyed with the surface which secreted it? or why do the wounds heal so readily after the application? The venereal matter having been absorbed, previous to the use of the caustic, it

* If the virus were constantly repelled by the use of the caustic, no chancre could occur, without producing the lues venerea which was cured by caustic, unless mercury was administered: now it often happens that very recent chaneres are removed this way, and not a grain of mercury is given, yet the patients remain perfectly free from symptoms of the lues venerea.

can neither produce a milder or a more malignant state of infection.

But this question may be very fairly put: Will a patient, who has venereal ulcers on him through the greatest part of a course of mercury, require more of the remedy, and a longer continuance of it, than another person who, *cæteris paribus*, has no sores secreting the venereal virus, perhaps, from having used the caustic from the very beginning of his cure? I should think few medical men would hesitate in deciding the question, by saying, that more mercury was requisite in the first than in the last instance. Therefore, unless the objections to the use of the lunar caustic, in very recent chaneres, can be established on better grounds than these mere suspicions, the advantages arising from its use will still induce most practitioners to persist in the practice.

When wounds are made, either by the knife or the caustic, of any extent, in buboes or in other venereal abscesses, the lips of them, for some time, take on a considerable degree of common inflammation, and this lasts till a suppuration and a digestion begin. We therefore at this time ought not to give mercury, or we shall readily excite the mercurial irritation. We should wait, when we have performed any operation of this kind, till the wound will heal no further without mercury; for, at first, it is to be observed that, by lenient applications, fomentations and poultices, these buboes and abscesses will heal to a considerable extent, especially if some mercury had been given previous to the operation: but as the venereal irritation always commences again, the good

digestion about their lips, at a certain time, ceases, and they get worse instead of better, if we do not now alter our plan and begin mercury again, which we may do with safety, as the local inflammation is considerably reduced by this time.

If we are free in dilating sinuses, or in using the lancet about buboes or ulcers, while mercury is given, we shall also be in danger of producing the same mischief.

Mercurial frictions, in some irritable and (as they are called) scorbutic habits, are apt to produce a kind of small pimply eruptions in those parts of the thighs where the ointment is used; and, to prevent this effect, as much as possible, we should take care that our ointment has no turpentine, nor any other irritating substance, mixed with it. We should direct the patient, previous to the frictions, to clean his thighs well with hot water and soap; and, if he has never worn flannels, to accustom himself to his drawers for three or four days: for flannel at first produces a disagreeable itching in some persons. The warm bath, or semicupium, when it can be had conveniently, may very properly be used by those whose skins are likely to be thus affected by the mercury. Violence should not be used in rubbing; for this does not promote absorption, and only inflames the surface. Steady, moderate, and long continued friction before a fire, will produce the greatest effect. I have observed an extraordinary difference in the effect of the ointment between those who use it diligently, and those who are careless and slovenly about it. We therefore should watch our patient, that we may learn whether

he is properly attentive and diligent. Some patients waste more than half their ointment, if not attended to. In recent cases, part of the mercury, and sometimes the whole quantity, may be given by the mouth, when we know the patients bear the frictions badly.

We may also favour one thigh so as to keep it clear of the eruption, if, by both of them being used, they are likely to become so sore as to oblige us to discontinue the frictions. We may also carry the frictions to the legs and to the outside of the penis with equal effect, taking care, however, that we do not let the mercury touch any sore or ulcer which may chance to be in the neighbourhood of the frictions. The intervals, which I have recommended in the frictions, will prevent, in some measure, this eruption, when it is very troublesome: and I have found that the application of the ceratum lithargyr: acetat: will speedily remove it.

Mercury sometimes in a very small quantity flies rapidly to the mouth, and we observe the venereal symptoms as rapidly disappear. This effect of the medicine is very apt to deceive us into the idea that the virus is removed sooner also from the general habit, and induces us to lay by the mercury earlier than we otherwise intended; and where this has been done, I have not unfrequently observed a return of the venereal symptoms.

This hasty operation of mercury, and the disappearance of venereal symptoms, are deceitful, and are not in the least to be depended upon. In all these cases we should pursue our course as steadily, and

to as great an extent, as we should have done had the progress in the cure been as slow as it commonly is.

There is an important state of the venereal disease, which has been too much disregarded. I have before hinted at it; but not explained myself on the subject. I mean the case of a recent infection received in an old contaminated habit. In marking the different stages of infection I have endeavoured to shew that each stage required some difference of treatment; for a recent infection is much sooner removed, and with less mercury, than those cases where the virus has been working in the habit for a considerable length of time.

Now in a recent infection in an old contaminated habit, if we overlook the old infection, we shall most likely only proportion our mercury to the supposed recent state of the disease, and we may therefore give enough to remove all the symptoms from the last infection, but not sufficient to clear the habit of the virus which has been long diffused in it. Our patient will still remain uncured; yet neither himself nor the practitioner know it at the time.

We should, to prevent this mistake, in every instance of a recent infection, inquire if it was possible that the habit might be under the influence of the virus previous to this attack; and, if so, we should explain the circumstance to the patient, and treat it as a case of the second or third stage of infection.

The symptoms of the old infection cannot be very apparent, or the disease would be detected immediately; but in general we may discover them by some such marks as the following: namely, when the pa-

tient informs us that he has not been in perfect health for some time, but is ignorant of the cause; that he has had the lues venerea, and remembers he was not regular in taking his mercury; or that it was a very short course, and a saline preparation which was given him. Perhaps he will discover some copper-coloured blotches on his breast, his arms, or his legs, or some little sore which will not heal; or he may complain of pains in his head, of want of rest, of frequent head-aches, of loss of flesh or of strength and appetite, and of flying pains in various bones of his body. A certain combination of some of these symptoms, and perhaps with others, not here mentioned, will lead an observing practitioner very soon to the discovery of the truth. But, if he should still have his doubts, there is one other circumstance which will generally remove all scruples as to the case; it is this: after the mercury has been given for some time for the recent infection, if we inquire, we shall discover that these former symptoms are also mending and disappearing, and that the patient is recovering his general health. When this happens, we must not give up the mercury too soon, for we may rest assured, that we have an old infection to encounter. The following case is an instance of the circumstance which I have been describing.

A gentleman complained of a considerable enlargement of one of his testicles, and he felt at times much pain and uneasiness extending from it along the spermatic chord to the loins; the tumour was very hard and weighty, and was at first attended with some degree of inflammation; which symptoms, however,

soon gave way to an anti-phlogistic treatment and suspension; but the induration resisted every application which was tried by the advice of different practitioners, as gentle mercurials, both outwardly and inwardly, electricity, &c. &c. The mercury which was given, it must be observed, was never in a quantity sufficient to affect his mouth, and was not continued more than three weeks. In this state he remained some months, when he applied to me for the cure of some chancre. I gave him mercury sufficient to affect his mouth. In a few days the chancre healed, and he began to observe that the affected testicle grew softer, and appeared to be of less weight to him. I now suspected that it was venereal, and inquired if he had any eruptions or pains about him, which had been of long standing. He told me he had not any at that time; but, before he began the mercury, he was subject to head-aches and pains in the bones of his thighs and legs, which were sometimes relieved by an eruption upon his breast and arms. Upon examining his arms, I clearly discerned some copper-coloured blotches, which were now disappearing, and I explained to him his situation; upon which he submitted to a very decided course of mercury, confining himself to the house, and in a few weeks he was perfectly restored, the testicle was reduced to its natural size and softness, and all the other symptoms were removed.

Here was a case of a fresh infection, contracted in an old venereal habit, which most probably would not have been cured, had not this circumstance been accidentally discovered; as the mercury, which is gene-

rally given for the recent infection, could not have been sufficient to have completed the removal of the venereal action. In this case we have also an instance of an enlarged indurated testicle depending upon the venereal virus.

I must here add a few words more upon sores which remain after long courses of mercury; for, as I have before observed, it does not always follow that a mercurial course must be continued until every sore is healed, for which the remedy was given; for it sometimes happens that, where there are buboes and other sores of considerable extent, we often finish a long and regular course of mercury before these sores are perfectly closed. In such cases, when we are thoroughly satisfied that a sufficient quantity has been given, we may desist, and we shall find that the completion of the cure is promoted by our doing so; as, perhaps, the healing process was prevented by some slight tendency to a mercurial irritation about the sores, or that the constitution, from the long continuance of the mercury, was so much debilitated as to be ill-disposed to produce granulations and a good digestion in the part. In these cases, when we quit the mercury, we should give a strong compound decoction of sarsaparilla with the extract: *cicutæ*,* which will be found of great service in promoting the healing. Country air and a milk diet are often equally useful.†

* *Extractum Cicutæ* (as I have observed) is now named, in the New London Pharmacopœia 1809, *Extractum Conii*.

† Mr. John Hunter has given us a very good account of this want of disposition in sores to skinning or cicatrizing. These wounds seldom

When an exfoliation of a bone is to take place in consequence of a previous caries, the mercury here of course may be discontinued; for when we suppose that the virus in the part is removed, to continue mercury till the exfoliation has taken place, would be, perhaps, to give it for months unnecessarily.

I have now finished the observations I wished to make on the treatment of the lues venerea. It will be easily seen that I do not offer them, as forming a regular system for the cure of this disorder, but merely for the sake of pointing out those alterations which I think should be introduced into this part of our practice; and, if the account here given of the mercurial disease be true, I trust there are but few medical men who will not consider them to be necessary.

I may have sometimes spoken of practices already generally admitted; but this was not always to be avoided when I was explaining or adverting to other circumstances.

I wish in this place, as it is connected with the cure of the lues venerea, to take notice of a theory peculiar to Mr. John Hunter; I mean upon the power of mercury in curing the symptoms of the venereal disease, but of its not being able to cure a disposition to this complaint before it has come into action. Notwithstanding the ingenuity of the thought, the authority of its proposer, and the sup-

discover any disposition to enlarge, and have generally a quiet healing complexion; sometimes, indeed, there is a kind of excoriation or fretting about them.

port which some medical men have given it, I cannot help considering it simply as a mere hypothesis, established on no better foundation than the circumstance of the venereal disease sometimes making its appearance again after its supposed cure. This is a fact which, I think, may be accounted for from a variety of other causes. If it is really not true, it cannot be too soon given up; because there is no theory which offers so convenient an excuse for the mistakes of ignorance and of inattention; no one which can be more humiliating to the regular surgeon, nor more truly distressing to the patient. If it were a fact, we could never have the comfort of assuring our patient that he was well, unless he had been separately cured of every fresh set of venereal symptoms; a situation which is so horrid and so loathsome to some minds that, I am convinced, they would sink under it.

But let us see what the doctrine is.* Mr. Hunter observes that, in the lues venerea, though all the parts are most probably infected at the same time by the virus, yet there are some parts which take on the venereal action sooner than others, these latter only at first taking on the *disposition* of the action. The deeper-seated parts, he says, come into action later than those which are superficial. From these parts coming into action at different periods, he considers it as proper that they should be divided into a first and a second order of parts. The first order, after the local symptoms, are the skin, the tonsils, the

* See Mr. J. Hunter's Treatise on the Venereal Disease from page 305 to 315.

throat, the inside of the mouth, and sometimes the tongue: the second order of symptoms show themselves in the periosteum, the fasciæ, and the bones. Then he tells us that mercury can only cure the disposition, when it has come into action; but if the disposition has not proceeded to action, mercury cannot cure it. Mercury will hinder a disposition from forming, or, in other words, will prevent contamination; and, while it is given, it will prevent the disposition, although formed, from coming into action; and finally, if we wish to cure the disposition, we must first, he says, let it come into action.

This, as I believe, will be found to be a short and faithful summary of Mr. Hunter's theory, and it amounts to this: namely, that when the venereal virus is come into action, (we will suppose, for instance, in the first order of parts, the skin, &c. &c.; and in the second order, the bones and the fasciæ), there is only a disposition to the disease. Mercury at this time administered with all the care possible, and continued to any length of time, could not do more than cure the symptoms of the first order of parts, and prevent the disposition in the second order from coming into action. To complete the cure the remedy must be discontinued, till the bones have taken on the venereal action, which will be discovered by the symptoms of the virus re-appearing.

We must enquire, what it is which Mr. Hunter means by *disposition*, independent of action; for it cannot be the same thing as we sometimes understand in (what are called) hereditary complaints,

namely, a peculiar organic formation favouring the appearance of particular diseases. For how can this be the case in a morbid animal poison accidentally admitted into the circulating fluids? and its being any action of the venereal virus upon the solids, even though not visible by symptoms, must be also foreign to Mr. Hunter's meaning; for he says that mercury can always cure the disposition immediately as it assumes action. Indeed, this would be admitting a doctrine so contrary to all analogy in other diseases, that no one could assent to it; namely, that mercury had the power of curing the venereal irritation in its more confirmed action; but had no influence over it in a milder and less active state. We are therefore left quite in the dark as to the true meaning which Mr. Hunter intended to affix to this word "*disposition.*"

Dr. Joseph Adams, in his Treatise on Morbid Poisons, has ingeniously endeavoured to support this theory of Mr. Hunter's; but I cannot, however, think that he has done so with success. He tries to trace an analogy of this difference of *disposition* and action in other diseases; to which I will reply in his own words (page 234, octavo edition, and page 155, quarto edition): "In truth, there is no disease which resembles the venereal in all its phenomena, and the manner of its cure;" "except Sivvens," as he adds in a note at the bottom of the page, in his quarto edition. All analogy, therefore, on this point, fails both as to the powers of the bark in the intermittent, or the action of mercury in the yaws, which are the two instances mentioned by Dr. Adams.

Dr. Adams, however, seeing that objections must be made to the idea of a *disposition*, independent of action in the venereal infection, endeavours to weaken this objection by observing, (page 235, octavo edition, and page 156, quarto edition), that, "If it be an action, it is a different one from that which has been the subject of experiment, and therefore, as in the instance of the bark with some species of intermittents, or of mercury in the earlier stages of the yaws, it is still such an action as we have not yet ascertained, that mercury will cure." Now this is departing entirely from Mr. Hunter's theory, for he says, that the venereal action can always be cured by mercury; and he mentions not a word of the power of the venereal virus to produce two kinds of action, one curable and another incurable by mercury, nor indeed can such a circumstance be supposed to exist; for experience teaches us, that every morbid animal poison has one specific action, which is always found to be the same, and produces the same effect, only differing at times in degree, not in peculiarity of action. The rest of the paragraph is as follows; "And as there is for the most part no action obvious to our senses, at least none of those local actions, which afterwards shew themselves in the skin, throat, and bones, it is surely justifiable to call the then state of the parts, a *disposition* to take on the diseased action." With great deference to Dr. Adams, I should think not, as long as disposition and action are considered as two different affections. For there certainly may be action, though not obvious to our senses by any symptoms; as for instance, we may give a course of mer-

cury for a lues venerea, and have proceeded so far in it as to have removed every obvious symptom of the complaint; and yet, were we to stop our mercurial course at this exact time, it is more than probable that, at some future period, the disease would appear again. In a number of cases so treated, the majority of them, to a certainty, would terminate in this way; because we had only cured the disease to the extent of removing all visible appearance of its existence. This then, as I conceive, proves, that when the venereal action shows no symptoms, yet it can exist, and may be cured by mercury; for in these cases, if the medicine be continued for some time longer, the patient will recover entirely and have no return of it. We are therefore under no necessity of supposing that there is no action, but only a *disposition* to action, when there are no symptoms perceptible to our senses.

There are so many obvious causes to account for the re-appearance of the lues venerea, in some cases, that I see not the least necessity for having recourse to this theory, or to any other, for an explanation of the circumstance.

One fruitful source of interruption to the completion of the cure of the lues venerea, is the very disease which is the professed object of this work. It is unnecessary to explain in this place how this happens. I have only here to observe, that the more the mercurial disease is considered, the more convinced practitioners will be of this very important truth.

A second cause for the return of the lues venerea may be discovered in a fact, too much overlooked,

namely, that of a new infection received in an old venereal habit. The mercury, being only proportioned to the recent infection, leaves the virus still unsubdued in the habit, which may appear again at some future period.

A third cause of failure in the cure of lues venerea, is the inattention and neglect of patients during their mercurial courses, of which, perhaps, we are often ignorant: and likewise the very erroneous manner of treating the lues venerea practised by the unskilful, as well as from the present general plan of using saline mercurials and topical mercurial applications, and from permitting patients to expose themselves to the atmosphere when they are using mercury.

I cannot help mentioning a fourth case; namely, the disguised and unobserved manner in which the venereal virus is sometimes received into the habit; for a patient perhaps, knows nothing of his being infected until he discovers it in his throat or in his bones. For instance, a gentleman's groom desired me to look at his throat, which had been sore, as he said, for two months. I discovered a large ulcer there, and I told him that it was venereal. He declared that it was impossible; for he had not been infected for upwards of ten years. After numerous questions proposed to him, he at last recollected, about eight months before, having had a little excoriation on the glans penis from a connexion with a woman, to which he applied a wash which he used for his horses. The excoriation got well,

and he thought no more of it. I directed a mercurial course and he recovered.

A gentleman in nearly the same manner removed a slight excoriation on the prepuce, after a suspected connexion, and thought no more of it. Some months after he lost his flesh and strength very fast, he complained of head-aches and pains in his bones, and at last a decided venereal node began on the tibia. This excoriation, after many inquiries, occurred to his recollection; he was then put under a mercurial course and recovered.

Now if it had so happened, that in these cases there had been chancres cured, some time previous to the appearance of the lues venerea occasioned by these excoriations which had been overlooked, the practitioner who admitted Mr. Hunter's theory, would have been satisfied that both these cases were instances of mercury being able to cure the venereal action, but not the *disposition*; for the excoriations would never have been brought to the recollection of the patients, or to the knowledge of the surgeon.

If Mr. Hunter's theory were well founded, I think the re-appearance of the lues venerea would occur much oftener than it really does; and that the recurrence would be more frequent in those cases, in which the infection had apparently been of some standing, than in the slighter and more recent instances: but the reverse of this we know to be the case; and for a very good reason. In recent infections we trust too much to small quantities of mercury in a saline form by the mouth; and we are too negligent of regimen.

The two cases which Mr. Hunter gives in support of his theory appear to me to bear some suspicion of having been mercurial in their termination, which, if so, readily accounts for the return of the lues venerea in them. (See Mr. Hunter's Treatise, p. 310.) The first began with chancres, for which mercury seems to have been given from the beginning, yet, at the end of three months, the patient only thought himself nearly well, went into the country with some pills, and at the end of another month supposed himself quite well; yet it proved afterwards that this patient was still most completely infected; as the disease broke out twice, and required two courses of mercury at different times to cure it. Now if the first mercury which this patient took, was either improperly administered, or was a bad preparation of it, (for we are not told what was done in particular) the mercurial disease might have taken place; and we have reasons for this suspicion, as it is said that he took mercury for three months, and, at the end of that time, only thought himself nearly well, undoubtedly from some sore or other symptom remaining. Now as he began to take mercury almost from the commencement of the infection, and continued it all this time, is it not more likely that the symptoms were mercurial than venereal? They must otherwise have been cured in three months.

But if we suppose the contrary, and admit that the mercury was properly administered, what must we not also admit? We must admit that mercury can no more prevent than cure a *disposition* for the venereal action; for here it is given for three months in

a recent case of infection, from its very first appearance. Now, agreeably to Mr. Hunter's theory, I cannot see, from this case, how any instance of the lues venerea can be perfectly cured; for, if in any case the disposition could have been prevented, it must surely have been in this very case.

In the second case the same circumstance occurred, namely, that of some symptoms remaining after the course of mercury was over, which symptoms were said not to be venereal. (See page 312). This was a throat-case of seven or eight months standing, beginning first by an excoriation, and then an ulcer: the mercury removed the ulcer, but a note at the end of the page informs us, that the original excoriation remained, and was not thought to be venereal even from the first.

That the excoriation was not venereal in its latter stage, I can readily conceive; but that it was venereal, before mercury was given, should not have been questioned, as the disease discovered its venereal nature so decidedly by giving way in part to mercury. Here therefore I must, agreeably to the laws of the mercurial disease, strongly suspect that the throat's not perfectly healing was in consequence of the mercurial irritation taking place, which also occasioned the venereal action to be suppressed before it was quite subdued.

I have entered into the consideration of this theory of Mr. Hunter's to an extent greatly beyond what I at first intended, but I really thought that it would be improper to pass it over in silence, as it so much interferes with every part of the treatment of the

lues venerea. Mr. Hunter (in page 313) seems himself to have some doubt of his doctrine, for he says, "it is *probable* that mercury can cure the action only, and not the disposition." And, therefore, I think for the reasons before suggested, as he speaks with some doubts on the subject, that we should not attempt to support it without we were possessed of better proofs of its being true than we are at present.

SECTION IX.

On the treatment of the Mercurial Disease.

THE first important circumstance to be observed in the treatment of this disease is, to lay aside the use of mercury in every form of it, whether the complaint exists locally or generally, whether it is in a recent mild state, or is of long standing and of great malignancy. Whatever be the cause of a complaint, it must, if it be not removed, naturally further support and increase it, what other remedies soever may be adopted. We should not only desist from the use of more mercury, but we should be particular in our inquiries of this nature, as for instance, whether the patient has used ointment, whether he cleans himself entirely from it, and removes such linen or flannels from his person as may have imbibed any part of the mineral.

If the disease is merely local, and of no great extent or of long standing, the mere abstaining from mercury for a few days, as I have before observed, is all which is necessary to be done: for the irritation will wear itself out from its not depending upon any morbid poison, nor requiring any specific remedy for its correction. Therefore, indeed, no specific remedy can be expected for its removal, but the cure must be attempted upon the principle of weakening and destroying the morbid action.

Those circumstances which can increase the irritability of the habit, will also increase and excite

this disease if they are applied during the continuance of it; whether they be such as reduce the natural strength and health of the constitution, or whether they be of that class which we consider as common stimulants, increasing the pulse and exciting an inflammatory diathesis.

Therefore we ought to lay it down as a general indication in the treatment of this disease, that we should restore and support the patient's natural strength, at the same time that we remove every cause of improper local or of general irritation.

The local disease is commonly confined to some sore or ulcer, and this ulcer is very often attended with a very considerable degree of pain, and particularly so if it is seated on the glans penis. Indeed the part will often be so exquisitely sensible, as not to admit the slightest dressings; and, when this is the case, it will be found that a considerable degree of a surrounding common inflammatory action attends the specific irritation, and aggravates it severely. In removing this, nothing succeeds so admirably as the unloading of the vessels, either by blood taken from the arm in the quantity of six, eight, or ten ounces, as we judge the patient can bear it, or by taking away some by leeches near the part.

We are sure in this manner to abate the pain and to diminish the common inflammation, and by so doing we can manage the specific disease in an easier way. We may then, by a fomentation of cicuta or poppy heads, and by the aqua lithargyr: ace-

tat :* diluted, keep the sore clean, and if it be proper to use any dressings, the common spermaceti ointment will be all which is necessary, as every kind of poultice to the penis, for the reasons before assigned, should be strictly avoided.

When the mercurial ulcers depend upon a general state of the irritation, we cannot expect that they will be removed before the general irritation either ceases or is much abated; but supposing that they sometimes are cured before this period, yet they will be liable to return as long as any degree of the irritation remains, a circumstance which we very often experience in mercurial chancre and in throat-cases: nevertheless it is proper to allay the irritation in the ulcers by every local means in our power.

When the ulcers are irritable, without much apparent surrounding common inflammation, (which is very often the case when the disease has been of long standing, and when mercury has not been given for some considerable time) I have then found that opium in fine powder sprinkled on the part, or mixed with a poultice, will prove serviceable. A very weak solution of zincum vitriolatum† may be also used with advantage, beginning with one grain to an ounce of water, and increasing the quantity if it agrees. To the throat-cases this is an excellent application; for the ulcers in that part are found, even in their worst

* *Cicuta* is now named, in the New London Pharmacopœia of 1809, *Conium*; and *Aqua Lithargyr: Acetat:* is named *Liquor Plumbi Acetatis*.

† *Zincum Vitriolatum* is now named in the New London Pharmacopœia of 1809, *Zinci Sulphas*.

stages, not so painful as those on the penis or in the groin.

The mercurial bubo, which is very seldom a mere local state of the disease, affords the largest surface of mercurial ulceration which we have. All greasy applications here are very frequently pernicious, and we often find it necessary in these cases to change our dressings from time to time, finding that what at one period is apparently easy, and promotes the cure, at another seems to disagree and to produce irritation. In these exulcerated buboes, when they are very obstinate, it is common to recommend sea-water poultices and sea-air for their cure, upon the presumption that these cases are serofulous. When a serofulous bubo is rendered mercurial, as we have described, and afterwards the mercurial irritation is removed, the serofulous disposition alone being left in the part, no plan of treatment can be more proper than sea-water and sea-air. But to the bubo, when it is truly mercurial, sea-water poultices are of no use, and they often disagree very much with the sore; and the sea-air, if the weather should be very cold, is of no benefit, as cold and bad weather greatly excite the mercurial irritation. If the weather is warm and fine, then the sea-air may prove very salubrious, and it may promote the patient's recovery: but the air of any wholesome place in the country would most probably do the same. We therefore should not send our patients, in these cases of bad buboes, to the seaside, without well considering whether the buboes be mercurial or serofulous. This it will certainly be in our power to determine by a due consideration of

the whole case from the beginning, by the complexion of the ulcer, and by observing whether the patient has the marks of a serofulous habit about him.

Warm sea-water bathing I should not object to in the mercurial disease, as I have known it to be of service, and have no doubt that it abates irritability and restores the secretion, and that perhaps it is not followed with that general relaxation which the constant use of the common warm bath occasions.

The reputation given to salt-water and sea-air in mercurial cases has been owing to this circumstance, namely, that practitioners always discontinue mercury in those patients who are sent to the sea-side, and do not always consider sufficiently how much their recovery depends upon this alteration of treatment.

To the mercurial bubo, in its commencement, nothing irritating must be applied. It should be washed and dressed as often as the acrimony and quantity of the discharge require it. Poultices of bread or linseed meal with a decoction of poppy heads, with fomentations of the same or of cicuta, succeed best.

When the irritation is much abated, we may indeed alter our plan a little and try slight digestive ointment, such as, equal parts of the unguentum elemi compositum with the unguentum ceræ, a piece of lint being first dipped in a weak solution of tincture of myrrh and placed within the edges of the wound. But these applications must not give much pain, and are always tried at first, as an experiment, to learn if the sore mends by them; for if it becomes more irritable they should be laid aside directly.

When the irritation is so much lessened as to permit the application of the roller, we may apply one rather tight, and with an equal pressure over the whole wound and the parts surrounding. This is a practice in many of our hospitals, and it is found to be a very useful one; perhaps it acts, as on old ulcerated legs, in suppressing morbid irritation, and in exciting a healthy action in constitutions which are hardly equal to produce it without this assistance. Indeed it is only, when the disease has been of long standing, healing in some parts and spreading in others, that this application is of advantage. I should observe, that when we use the roller we must first apply a compress more than equal to the circumference of the wound.

I have known a solution of lunar caustic applied to mercurial ulcers; but this may be an application of a very hazardous and precarious nature, and should never be used in the earlier stages of these wounds, nor while they are very irritable, nor when we suspect that the mercurial irritation is strong in the habit; for we should only irritate the ulcer to a greater degree, without any chance of removing it. When the ulcer appears to be free from any great degree of irritation, when it bears any kind of dressing, and when the disease is of considerable standing, we may then, in some of these instances, try what touching the least irritable part of the sore will effect towards destroying a diseased surface, and towards exciting healthy granulations; but the experiment must be made with very great caution. A solution of blue vitriol produces, though in a less perfect manner, the

same effect as the lunar caustic. The white vitriol may be tried in solution in its turn. I have seen a dressing, composed of the ceratum spermatis ceti* and sarsaparilla powder agree for a time with these wounds very well.

When the mercurial irritation is a general affection of the habit, and when it has been aggravated by repeated courses of mercury from the disease not being well understood, the patient may be brought to such a state as to be past recovery; or by a mortification, or by a rapid spreading of the mercurial ulcers, such organic mischief may have taken place as to be irreparable. It has sometimes happened, that a sudden sloughing in a mercurial bubo has destroyed the coats of an artery, and the patient has bled to death; or the patient may be so sunk, from hectic and emaciation produced by this diseased irritation, that no care nor attention can recover him: and, in some very few cases, where there has been an extreme mis-management, the ulcer, in defiance of every application, will spread with the malignancy of a cancer, and will end fatally; but the constitution in all cases, independent of the specific disease, is generally very unfavourable.

We have also mentioned, that the progress of this complaint, contrary to its usual course, is sometimes so rapid as to allow no time for subduing it, before the patient is lost. The case mentioned by the late Dr. Donald Munro in the second volume of the Medical Transactions appears to be an instance of this kind.

* *Ceratum Spermatis Ceti* is now named, in the New London Pharmacopœia of 1809, *Ceratum Cetacei*.

But, however bad the cases may be, which fall under our care, we should not despair of curing them, if there be time sufficient for the application of our remedies, and for the patient's receiving the benefit of regimen. I have indeed myself seen some instances of this disease, within a few years, which have been considered as hopeless, and yet the patients have recovered; but these happened only where the disease was properly understood, and mercury was never again given.

The case of a mercurial ulcerated throat in a woman (mentioned in Section V. of this Inquiry) was an extraordinary instance of a recovery. She had been many years afflicted with the irritation, which was aggravated by repeated courses of mercury; and she was at last reduced to such a miserable state, as to be hardly able to swallow fluids, with the fauces so generally and deeply ulcerated, that it was every day expected that some of the cervical vertebræ would be denuded.

In many instances I have seen the whole glans penis destroyed by this disease, and yet the patient has recovered. I have also seen a bubo, spreading almost from one groin to the other from irritation, perfectly cured by good management.

We must not be disappointed nor discouraged from the length of time which these very dreadful cases require for their recovery, nor from the state of the disease which sometimes appears to be nearly removed, and yet returns again: for this is a circumstance which will happen in most of them, and which, unfortunately, is too often the inducement for giving more mercury, as it is not considered that the sores will be

liable to return while the irritation lasts. I have known a patient labour for more than ten years under this irritation, and yet recover. This is, indeed, a longer period than the venereal virus could have remained, without doing irreparable mischief, even on the supposition that no mercury had been given.

The re-appearance of the ulceration, as we may well imagine, must form a very considerable difficulty in our judgment of these cases, whether the return may not be a re-commencing of the venereal action. But this difficulty, I have already mentioned, when duly considered, will not be found to be so great as is at first imagined. In recent cases of the mercurial disease, in which the constitution has but slightly partaken of the irritation, a relapse is not likely to happen, unless we use mercury too soon again; and therefore any fresh ulceration most likely will prove to be the venereal action. But, in bad cases of the mercurial disease, in which perhaps mercury has been often repeated, there can remain little doubt but that the venereal virus has long before been removed, and that every fresh appearance of disease must proceed from the mercurial irritation. The symptoms of the two complaints have, however, a difference which we have several times before remarked, and which every practitioner, when he is apprised of it, will readily discern.

In pointing out the general treatment of this disease, I must lay down all those circumstances which the worst cases require. Where the disease is less inveterate, there the practitioner may use his judgment in omitting so much of the plan as he thinks

can safely be dispensed with, recollecting, that time and the total disuse of mercury will alone be sufficient for the cure of slight cases, in which the mercurial course has not been repeated so as to occasion an aggravation of the disease.

We will suppose, however, that a patient applies for relief, under a severe state of the disease, where mercury has been given to an excess, and used under improper forms and in an improper manner. The first thing to be done, as we have before observed, is to lay aside the use of mercury, and to remove every cause of local and of general irritation. If the patient is strong and his constitution is not much hurt, if his pulse is quick and full, and if the local ulceration is attended with much pain and inflammation, but without any disposition to gangrene in the part, under these circumstances we ought directly to take six or ten ounces of blood from the arm; and this is more especially adviseable and proper, if the mercury has been but lately given up.

The apparent loss of strength and of flesh in patients afflicted with this disease may induce some practitioners to think, that bleeding is a very extraordinary, and perhaps not altogether a very suitable remedy, in these cases. I believe, indeed, it has never been much practised, and therefore it is incumbent upon me to say a few words in explanation of the advantage to be expected from it; and to endeavour to remove the objections which may be made against it. We are first to remember, that any reduction of vigour in these patients is owing to a foreign irritation, which is constantly

harassing their constitutions. If the irritation is removed, we find that the constitution instantly recovers from the effects of the previous disease; and this debility, while it does last, is not of that dangerous and equivocal kind, which so often renders bleeding an uncertain and hazardous remedy in some fevers and acute diseases: and also from experience I find that the patients, however weak they may appear, do not suffer any further reduction of strength from this operation.

The blood very constantly appears buffy to a remarkable degree, and the crassamentum is much contracted in the bason, with the cup-like appearance which is common to blood drawn in inflammation. The earlier in this disease the operation is performed, the stronger shall we find these appearances, and the more apparent will be the relief which the patient experiences.

We know nothing that tends to check an extensive salivation more suddenly than eight or ten ounces of blood drawn from the arm; and the blood, so drawn, always discovers strong indications of an inflammatory diathesis.

We find even the progress of the venereal action rendered much milder by bleeding, upon the same principle, namely; that, the diminishing or the taking away of every tendency to the common inflammatory action is, in fact, to remove an existing cause of specific irritation.

What the late Mr. Henry Fearon * has said on the

* Treatise on Cancer, p. 55, in the note.

effects of bleeding in scirrhus and cancer, is very worthy of notice ; he observes, " that inflammation is either the proximate cause of cancer, or always attends it ; as he is strongly inclined to believe." In another part he says, that " he has often removed incipient scirrhi, especially such as are forming at the cessation of the menses ; and that he has relieved cancers by the repeated use of topical and general bleeding : " and he further observes, (in page 57) that, " though the pulse never indicated such practice, yet the patients have not suffered by repeated bleedings ; but on the contrary, that, when they passed a certain time of losing blood, they felt a return of their symptoms and of their own accord desired to be bled again." With this practice he directs a milk and vegetable diet, and forbids wine, spirits, and fermented liquors. He recommends saturnine applications to the part ; and the body, in his opinion, should be kept open by gentle laxatives. In the cases in which a contrary plan has been pursued, and where mercury, martial flowers, and arsenic, have been used, much harm, as he says, has always been done. The experience of Mr. Fearon in this branch of practice must have been considerable ; and what he has advanced tends to prove, that morbid irritations are often attended with a considerable degree of common inflammatory action ; and that the common inflammation is generally the first step in the commencement of these specific irritations.

In the latter stages of the mercurial disease, bleeding is certainly a less adviseable remedy, as the in-

inflammatory diathesis is then less prevalent; and in all cases in which the mercurial wounds are sloughy, and when the patients are weak and low, this operation must be very improper. Even in the latter stages of the mercurial disease, that is, where the irritation has been of long continuance, if the patient is not remarkably reduced and his pulse very weak, one bleeding will be of considerable service, and should not be neglected.

When a mortification is threatened from the excessive degree of the specific irritation, which is excited by a very evident inflammatory action, and when the pulse is hard, full, and quick, we may bleed with safety, and after that we may employ opium more liberally to abate the pain.

Perhaps it will not a little strengthen this doctrine concerning the effects of bleeding and evacuations, if we recal to the reader's mind the practice in the treatment of the lues venerea at that period of time, when mercury was little, or not at all, used in the complaint. Blood-letting and other evacuations were then employed with decoctions of various kinds; and by this practice, if we examine the accounts handed down to us, we find that they greatly lessened the violence of the venereal action; and though they could not remove it, yet they enabled their patients to bear the disease much longer than they could otherwise have done.

After the patient has been bled, we should direct him to take for a few days the common saline mixture with antimonial wine, or a pill composed of pulvis ipecacuanhæ compositus with the saline mixture.

His diet should be partly milk, and he should quit the use of wine and of spirits for a time. By this mode of treatment the secretions will be promoted, and the constitution will at least be relieved; and if there be any tendency to an inflammatory diathesis, or if there should be any sores or ulcers which accompany the general disease, they will become easier and put on a better appearance, and the patient's pulse will likewise lose its quickness and fullness in part. I should have mentioned, that gentle cathartics to keep the body open must likewise be used, if occasion requires them, and the bleeding may be repeated if we see it necessary.

Having treated the patient in this manner for a week or ten days, we may then, in proportion to the amendment of the symptoms, alter the plan, and proceed upon the principle of checking, or rather of removing, the specific mercurial irritation itself: and for this purpose, no medicines are equal to the sarsaparilla decoction and the cicuta.* If, however, they are given previous to the use of evacuations, and of the anti-phlogistic plan in those cases of the mercurial disease which are attended with plethora, with a full pulse, and with a disposition to common inflammation, we shall find their effects are not nearly so powerful: indeed, at times they will absolutely fail, and render the disease more obstinate. It is not improper to observe, that this is a point in practice to which much attention has never yet been paid.

* *Cicuta* is now named, in the New London Pharmacopœia of 1809, *Conium*.

When mercury is given up, the sarsaparilla and cicuta are commonly given immediately ; and in some instances this may be proper, but not in the case which we are now considering. We are also to remember, that the continuance of the first part of this treatment must seldom exceed the period which I have mentioned ; and very often a less time will do. For as no violent morbid irritation can long subsist in the habit without impairing the strength, so we shall be running a hazard (after we have taken off the symptoms already mentioned of a common inflammatory action) of increasing the patient's weakness, if we persist in the lowering plan. We must now use such medicines as do not diminish the strength, but which rather support it, without using active stimulants. These medicines ought likewise to diminish and destroy the specific diseased action. The decoction of sarsaparilla is, I am persuaded, the best medicine for this purpose, as it is a gentle tonic, and as it powerfully promotes and restores the secretions from the suppressed state in which we find them under this disease. The cicuta also, when given in increased doses from a pill of five grains to six or more daily of the same weight, very powerfully diminishes many diseased actions, and in this particularly it is of the greatest service. But we should use both these medicines in considerable doses, and continue them for many weeks when the case requires it ; and we should even renew the course again and again, should the disease from its inveteracy return. The decoction should be taken to the quantity of a quart daily, of

good strength, and boiled fresh every second day at least.

The decoction may be varied in its composition according to circumstances, and we may sometimes add to it the antimonial wine, as recommended by Dr. Donald Munro, but not, as I think, in such large doses; for thirty drops of it to each quart will be sufficient. When we use this addition, we do so to render the decoction more sudorific, and when we suppose that the pulse may be still reduced. We should, however, watch its effects; and if it disagrees with the stomach, and we do not find any sensible advantage from it, we should discontinue its use. We must not in any case continue the antimony more than a fortnight, or three weeks, with the decoction.

At other times we may add the pulvis sarsaparilla and extract of sarsaparilla, the mezereon and guaiacum to the decoction; or the decoct: sarsaparill: compositum of the London Pharmacopœia. When we use these latter forms, we do it for the sake of change in the course when it is tedious; but we do so principally to give the medicine a more active and a more tonic action in these cases of this disease, in which the patients are much weakened and reduced.

When the case is likely to be of long duration, and when the patient has lost flesh and strength, and his countenance is sallow and indicating disease, he will find great benefit by removing into the country, and particularly to one of those places which are remarkable for the salubrity of their climate, and for the mildness of their atmosphere. Bristol and Lisbon are often preferred for these reasons. The patient

should drink asses' milk, and lead a quiet easy life; as this kind of regimen, joined with the medicines just before mentioned, will rapidly restore him to his former health.

I must now advert to the treatment of this disease, when it is under an aspect somewhat different from that which we have been describing; when the specific mercurial irritation is connected with a very reduced and emaciated habit, and when, perhaps, there exists a considerable degree of hectic. The patient having suffered in his general health, very probably from the effects of the previous venereal, as well as of the present mercurial action, and from his own irregular habits, and from a constitution always unfavourable for diseased action; perhaps also from the ulcers, especially if buboes shew a disposition to slough in part and to partial hæmorrhages; the pulse being quick but weak, with every sign of debility to a considerable degree.

In these cases bleeding, antimonials, and an antiphlogistic regimen are improper; for here the specific irritation is as much supported by the weakness and debility, as in the former cases we suppose it to be excited by plethora and a tendency to an inflammatory diathesis.

We must here allow the patient wine and a very nourishing diet. We should send him into the country if possible, and make part of his diet to consist of milk.

We may begin immediately upon the cicuta and sarsaparilla, the latter in its compound form and joined with the powder of sarsaparilla and guaiacum;

or we may at first, in order to check the weakness more efficaciously, give the cicuta with bark and steel, afterwards changing them for the decoction. For the bark is certainly a greater tonic than the sarsaparilla; but then, as it stimulates more and is rather a check on the secretions, it is not a medicine to be admitted in preference to the sarsaparilla, except in the beginning of those cases which are attended with that degree of debility which we have just described.

Sometimes the mercurial disease is without any external symptoms of wounds or of ulcers. Pains in the bones of a very unfixed disposition, want of health, and perhaps some rising on a bone or tendon, are all the signs by which it discovers itself; and it is from the previous treatment that we are assured of the true nature of the disease. In these cases a few ounces of blood taken from the arm, with the aqua ammoniæ acetatæ and pulvis ipecacuanhæ compositus given for three or four days, and then followed by the decoction of sarsaparilla and cicuta, will probably effect a complete cure in a short time.

There are many circumstances which particularly favour the return of mercurial symptoms after their apparent removal; such, for instance, as the approach of the winter season, the sudden changes of weather from a warm westerly wind to a cold east wind, or rain and moisture. The throat-cases are particularly liable to relapses, as any illness, or any violent cold, will excite a return of the symptoms. For these reasons patients in this disease should be cautioned against exposing themselves to these accidents

from the weather; and they should wear flannel waistcoats, till the time when they are perfectly sure that the irritation is completely conquered, and that they have recovered their natural health and strength.

It has been frequently observed, that the cure of this disease proves extremely tedious in very bad cases which are attended either with the mercurial bubo or with sore throat; and we must often lay by our remedies, and take them up again, or change them from time to time. However, I have it in my power to say, that from the plan of treatment laid down here, if pursued with vigour, and if the distinctions of mercurial cases are accurately observed, the cures will be much shortened to what they have been formerly. Experience, in a variety of very bad cases, authorises me to express my conviction of this; and I have very little doubt that, when the cause and nature of this disease are still further investigated, it will be but seldom seen, and that, when it does occur, the treatment will be still more successful.

I have sometimes changed for a time the cicuta for opium; but this latter medicine does not sit so well on the stomach, and I think that it produces more unpleasant symptoms than the cicuta: but, if it is given with some balsam or essential oil, these disagreeable effects are in part diminished. The malt infusion and the carrot poultice are perhaps deserving of trial, among the changes which we are obliged to make in our medicines; the former should be given at least to the quantity of three pints or two quarts every day, if we expect that it should prove efficacious.

Although I have spoken of the re-appearance the mercurial and venereal actions after their supposed removal, I think it is proper to add a few words more relating to the return of the venereal action. When this action appears a second time, after the removal of the mercurial irritation, it has generally taken place when the mercury has been checked in its anti-venereal action in the middle, or towards the close, of a first course. In these cases the chancre, during the suppression of the venereal action, are generally very irritable, especially if they have been treated with local mercurials; and if the habit partakes very much of the inflammatory diathesis. If we bleed these patients, give them a good dose of physic, and lay aside mercury, we find that the ulcers almost instantly lose their exquisite sensibility and appear as if they would soon close. However, if the mercury be not given again, they at last rather become stationary than grow worse; and perhaps an ulcer in the throat, with blotches of a copper-colour, appears on the skin. All this is truly characteristic of the return of the venereal action, which was before suppressed but not removed. In these cases there is no aggravation of the mercurial disease by repeated courses of mercury, and we may suspect the return of the venereal action, as the full anti-venereal effects of the mercurial course were interrupted by the coming on of the specific morbid action of the mineral. These cases are very common, and ought never to be mistaken for the disease; and, as they are not inveterate under these

circumstances, a little good management may soon restore the patient to sound health.

I have now finished what I had to offer on the treatment of the mercurial disease. I have endeavoured to prove, that this irritation has a natural tendency to wear itself out of the constitution, and that it will spontaneously cease, even without remedies in recent cases, if it is not further excited by a repetition of the mercury. I have observed, that no specific remedy is known for this disease; that its removal is to be attempted, first, by abstaining entirely from the use of every preparation of mercury; secondly, by removing and avoiding every cause which can excite local or general irritation; thirdly, by restoring the impaired tone of the habit by country air, rest, and a milk diet; and fourthly, by making a distinction between those cases of the disease which are attended with a full habit, and with an inflammatory diathesis, and the cases in which the patients are weak, reduced, and inclined to hectic.

In the first of these cases we should use bleeding, antimonials, and an antiphlogistic diet for a certain time; in the second, we should employ tonics and a full diet from the beginning. In all of them it should be our endeavour, by cicuta and by the sarsaparilla decoction varied in its composition as we find occasion, to destroy the morbid irritability and to promote the obstructed secretions.

Where the ulcers are spreading rapidly, and when the pain is great, opiates should be liberally given,

which may be ordered at the time when we are using the bleeding and other evacuations. And I trust that, when the practice of bleeding in these cases and the use of antimonials have been tried as preparatory to the employing of the sarsaparilla, it will, from the evident success which, as I am convinced, will be found to accompany it, be considered as adviseable to adopt it generally; though the treatment be perhaps rather new, and somewhat different from the common practice.

I have also a sincere hope that this Inquiry may, at least, excite a more active attention to the nature of a disease which, as I conceive, at present forms the chief obstacle to a more perfect and to a more successful mode of treating the lues venerea.

I **HERE** close my work: but I trust I may be permitted to subjoin a few general remarks in the conclusion of this Inquiry, as I think that the occasion or the subject of them may be my excuse.

It must be the duty and the business of professional men, who are seriously and honestly engaged in the service of their afflicted and suffering fellow-creatures, to read and to perpend the philosophical and medical records of their own and of every preceding age; and it is their right and their office

to derive and to propose their own deductions whether from modern writings, or from the works of established fame claiming a perpetuity of existence.

There is not a nation upon earth in which the sciences of medicine and of surgery have been cultivated, improved, and honoured, as they now are in Great Britain; and justly may we be thankful for this enviable and most beneficial distinction. The light also which is *now* diffused abroad in philosophical pursuits by the patient and humble inquirers into nature, and in particular from the chemical and electro-chemical researches by a young man of our own nation,* whose genius, industry, sagacity, information, and eloquence are equally conspicuous and attracting, that philosophical light, I say, may shortly pierce even the darker recesses of *our* art, and, by disclosing yet unknown properties of the agents of nature, may enable us to advance the powers of healing. If we draw near with zeal but with humility; and if, in this spirit, we attempt to raise up the corners of the veil with that hallowed curiosity, which has for its end not the pride of science but the good of our fellow-creatures; we shall best trace and revere the ways and the works of that wise, just, powerful, and beneficent Being who visiteth the earth and blesseth it, who, not fortuitously but with design, not in wrath but in mercy, has subjected man to every ethereal influence and to every variety of disease, but with the

* Mr. Davy of the Royal Institution.

chastisement has disclosed the remedy and feelingly persuaded him what he is.

To differ in scientific or in practical opinions from any writer, however great and distinguished, can never be a mark of disrespect; nor, when we consider the frame, the duties, and the expectations of man, can it be regarded as presumption to approach the sanctuary of knowledge, and with a calm, but dignified, temper of mind to re-consider the ground and the validity of the most established doctrines or of the most widely-received opinions. All talents and all researches are but ministerial to the grand result, I mean, to the improvement of true and practical knowledge and to the prevention, or to the mitigation, of human suffering by that auxiliar and uniting sympathy, by which the great system of the world in all its bearing and relations, amid every seeming irregularity and fancied deviation, is shown to be a system of benevolence.

To living *professional* worth and reputation every tenderness is due; and delicacy alone prevents my gratifying the desire, which I should otherwise feel, of adverting to the merits of many of my contemporaries; but perhaps they are better understood by my silence, and are more conspicuous from not appearing in these pages. But there is a field of contention into which it is allowed, and it is good, for man to enter, not with asperity, not with rudeness, not from the mere desire of distinction, nor from the rage and lust of gain; but from an honest endeavour to elicit what is true and what is useful, and from a desire, not only allowable but laudable, to offer our

common professional pretensions to honourable subsistence by honourable means.

Let me however for a moment, for I feel that it is most becoming so to do, let me pay a passing tribute to departed excellence. To the works of the great Percival Pott, who opened many new sources of surgical science, and who by his ability, by his judgment, and by his practice, enlarged the bounds of his art, and gave stability to his precepts, no professor can have recourse without feeling personal obligation and unfeigned reverence. He has, and he will forever have, a bright and memorable name. I feel great pleasure also in adverting to the volumes inscribed with the name of John Hunter. Of a man of such long and extensive experience, of originality in thinking, of talents, and of genius, who would not speak with respect, and attend to him with deference? Such I esteem the late illustrious John Hunter; and under such impressions would I consider every memorial of his indefatigable mind, and every result of his most curious and important investigations.

But in all sciences, in the medical and surgical science most particularly, the opinions and the doctrines of great writers and of great practitioners should be well weighed, and their mistakes (if any are found or even suspected to exist) should be pointed out for examination with sincerity and with candour. To this there can be no objection; it is a duty which is owing to society and to the usefulness of our profession, and if it is effected in this spirit, happy and blessed will be the issue of it; the miseries of man will be lessened, and the groans of suffering humanity

will be variously appeased. In particular, in the profession of surgery, I mean among those who devote themselves to it *exclusively*, unmixed with the more general objects of medical practice, (though I think that many of those objects are by no means incompatible, and sometimes perhaps are inseparable from it) it is, indeed, a duty paramount to every other consideration.

It is allowed that, when the life of a man is in debate, the legal deliberations of the judge can never be too long. I am equally convinced also, that in *our* profession no discussion can be considered as fatiguing, no examination can be regarded as tedious or superfluous by the wise and good, when we are called upon to consider either the nature, or the relief, or the prevention of those infectious distempers which are foes to life, and which are frequently attended with pains fiercer than those of death itself.

It is not the name, nor the doctrine, nor the practice of Hippocrates or of Sydenham, of Pott or of Hunter, which should guide us implicitly, but it is the truth and the result of actual facts founded on knowledge, and on reasoning, and on repeated experiment, which can alone establish a course of practice at once safe and efficacious. In this manner we shall best recommend and worthily magnify that Profession to which, in all ages, honour has been paid, and to which, when it is religiously and conscientiously exercised, kindness and gratitude are always due.

When I observe how eagerly the afflicted and the miserable, in the faintings and swoonings of despair, lay hold on every ignorant pretender and on every audacious empirick who thrust themselves into the seat of science and into the chamber of practice, I solicit the public attention, with a stronger and a more affectionate earnestness, to the prevalence, the nature, and the extent of the disease which has been the subject of my Inquiry. It is not merely the young and the unthinking, who are suffering the punishment of dissolute days, who are alone concerned in the result; for the general (I had almost, said the indiscriminate) application of this valuable and powerful mineral, MERCURY, in all the diversity of its preparations, is now making inconceivable ravages among the innocent, from infancy to decrepitude, on many a tender and on many a strong constitution. But when this mineral is administered with prudential reserve and with discreet knowledge, its effects are blessed, safe, efficacious, and permanent.

In the preceding pages, which I now most respectfully offer to the public consideration, I have been actuated by these motives. With my own observations and facts I have blended those of some very able and conscientious men of my own profession; one, and indeed the chief, of whom it was my happiness and my advantage to have known intimately, and whose virtues, talents, knowledge, and friendly assistance it is now my misfortune deeply to regret and to lament: but I have confirmed every observation and every fact

by my own experience and by my personal practice. I therefore deliver them with an humble, but with an animating, hope of preventing or of alleviating those inflictions of pain which, as I conceive, may be avoided, and those exacerbations of agony which I have too frequently witnessed with the most serious concern.

THE END.

among the French, to whom nevertheless I do not hear that it is now attributed.*

I am, with high esteem, dear Sir, your's sincerely.

ON MERCURIAL ULCERATIONS.

COMMUNICATED IN A LETTER TO ONE OF THE EDITORS.

[For the New-England Journal of Medicine, &c.]

THE method of discriminating those diseases which resemble, in appearance, the *lues venerea*, so well explained by Mr. Abernethy, has not, I imagine, been generally known in our country. At least I have had much reason to fear so, from the practice of some physicians. Whenever those organs have been affected, which are usually the seats of syphilitic complaints, mercury is the first and only auxiliary of the practitioner. The poor patient is mercurialized and salivated at successive periods, and when his complaints get worse under such treatment, they are thought to require reiterated and more violent salivations. Salivation is made to succeed salivation, till the enormous extension of the ulcers, the copious flow of saliva, repeated diarrhoeas, bleedings from the gums, and swellings of the throat that threaten suffocation, combine their aid to destroy the unfortunate victim. Mr. R—— applied to me for advice, at some time in the year 1812, being affected with an extensive ulceration on the glans, and another which covered the greater part of the soft palate and the roof of the mouth. He gave the following history of his case:—Seven or eight months previous to that time, he had been affected with a chancre, which made its appearance a few days after he had been at sea, on a voyage to Europe. Being prepared for the occurrence, he began to take mercury; but the quantity was not sufficient to produce

* But wherever these two discoveries have arisen, the knowledge of them is peculiarly important in a country where child bearing is so common; and where notwithstanding the usual good health of the people, pain and the hazard to a double life often require that the operations of nature should be assisted.

salivation, and in a short time he perceived a swelling in the groin, which proved to be a bubo and suppurated. After a five weeks' voyage he landed in Europe, and immediately began a regular course of mercury, which soon caused a rapid amendment in his sores. Before the cure was completed, he was unfortunately compelled to go to sea again; here he continued the use of mercury, though not so regularly as had been enjoined, so that his sores increased, and he perceived an ulceration on one side of the soft palate. When this voyage was completed, he was so thoroughly alarmed, that he resolved to devote himself to the cure of his disease. In the space of five or six weeks, the ulcers were all healed: though not till a deep indentation had been made on the glans, and an inequality in the throat, which caused some uneasiness. He remained perfectly well, long enough to satisfy his surgeon and himself, that the disease was eradicated. After some time, he sailed on his return to this country, and in a few days observed an ulceration on the glans, at the part formerly affected. This appearance surprised and alarmed him extremely, as he had never been exposed to infection after the first disease. Mercury was immediately resorted to, and this time he used it so effectually as to produce thorough salivation. He was greatly disappointed, however, on observing that his sore did not improve, and that his throat was ulcerating. The mercurial medicines were continued so as to keep him salivated in a moderate degree during five weeks; the sores were sometimes a little better, but on the whole they increased greatly, till the termination of his voyage, when he came under my care.

At this time there appeared an extensive ulceration of the throat, covering the whole of the palate and extending to the posterior part of the pharynx. The ulcer was of a yellowish white colour, not very deep, and its edges soft and not well defined. It had, for a few days, increased with great rapidity.

On examining this ulcer I was satisfied from its superficial appearance and rapid extent, that it did not possess a syphilitic character. The history of the symptoms confirmed me in this opinion; for it appeared less probable, that the long continued use of mercury had not eradicated the original disease, than that the copious use of this medicine had weakened the ulcerated parts, so as to admit of their falling into a state of disease, on

the slightest irritation. I endeavoured to explain this to the patient, as satisfactorily as possible, principally with a view of convincing him, that he had no remnant of syphilitic disease. He was directed to take Peruvian bark in substance, and in as large doses as could be employed. He had also a very weak mixture of muriatic acid with water, which, however, he could not take at first, but afterwards bore very well.

During the three first days of the treatment, no favourable change took place in the appearance of the ulcers; on the contrary, his appetite and strength lessened, his tongue became very foul, and the disease extended. I then directed an emetic; from the operation of which, he suffered severely. The treatment was immediately resumed with vigour; he was directed a cordial diet, and the moderate use of wine, especially the red astringent wines. In two days after this, the amendment in the state of the ulcers was remarkable. The whitish semi-purulent mucus which covered the palate was cast off, a red and healthy surface appeared under it, and the disposition to heal was sufficiently evident in the edges. In a week, the greater part of the ulcer was healed, and the remaining portion soon after. His appetite and strength were also perfectly restored.

Hardly were the injuries healed, than this patient thought proper to indulge himself in a debauch of wine, the consequence of which was the reappearance of the ulceration in the mouth, two days after. Being again called to visit him, I repeated the course previously adopted with equal success. After which I did not again see him.

A few months after, I was informed that his mouth had again become sore, and that he had consulted two respectable physicians, who pronounced the disease to be syphilitic and directed a full course of mercury. No sooner was he affected by this medicine, than the ulcerations became more formidable than ever. A profuse discharge of foul matter was poured out from them, and the physicians thought it necessary to use mercury with more vigour, which was accordingly done. Notwithstanding this, the disease daily became more alarming; the patient wholly lost his appetite; a hectic fever appeared; his strength gradually wasted away, and in a few months he died in a dreadful state of disease.

It is hardly necessary to remark, that the result of this case proves the complaint not to have been syphilitic. It must be considered as a disease caused by mercury, and that this medicine was the most improper, that could be employed for its cure.



CASE OF A BOY WHO SWALLOWED A PIECE OF COPPER.

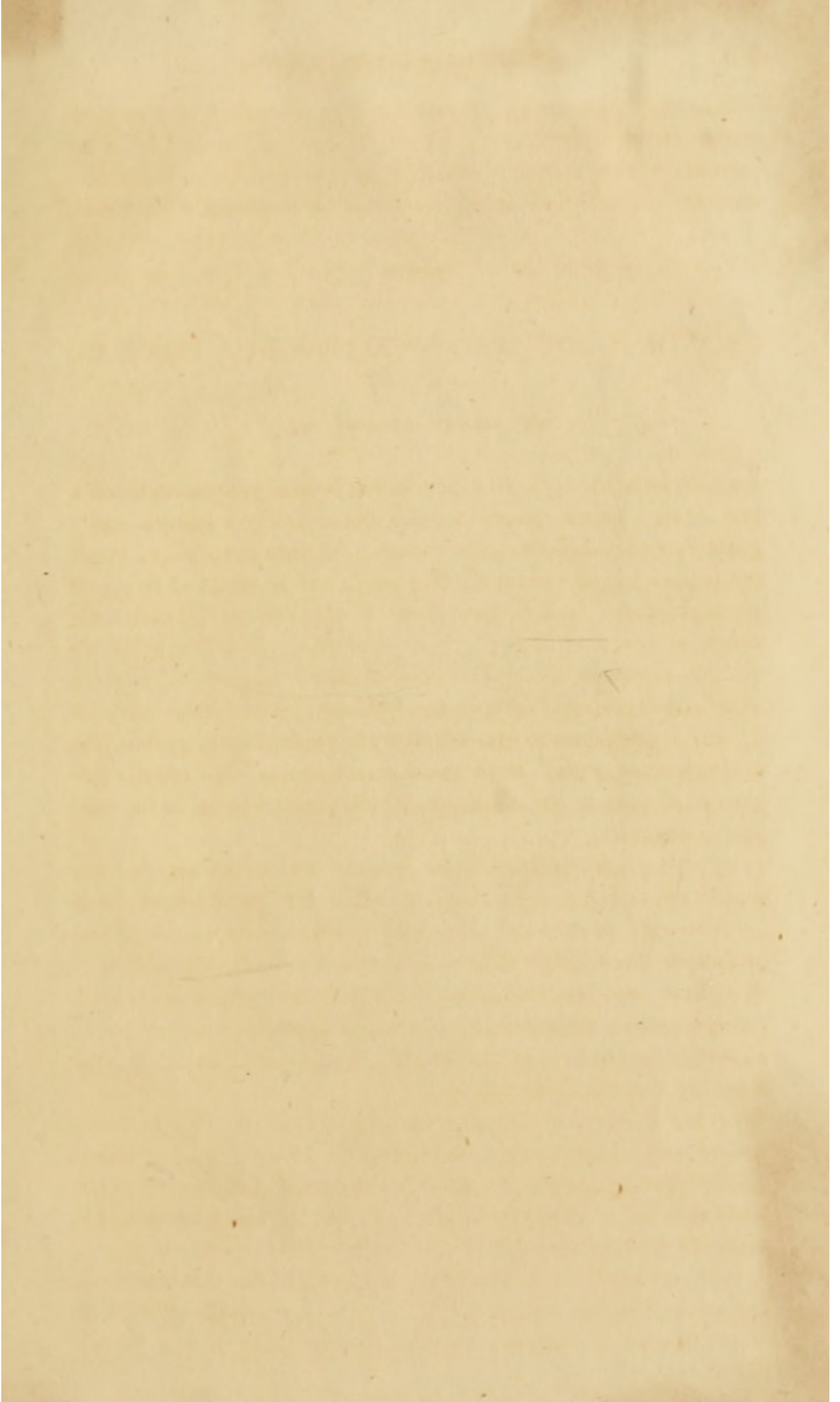
BY JAMES JACKSON, M. D.

IN October, 1813, G. B. a boy in his fourth year, swallowed a half cent. There ensued almost immediately a nausea and a great flow of saliva from the mouth. Within twenty-four hours the patient began to vomit. He continued to vomit at intervals for eight days; and at sometimes it was almost incessant for hours, and in the highest degree distressing. He threw off his victuals and some bile; but much of the time, he was troubled with vain retchings. About the fifth day, he had three very offensive and copious stools, which were uncommonly green. He derived some relief from these evacuations. He often complained of pain in the abdomen, which seemed to be in the umbilical region.

The first solid food which he retained was in the night of the eighth day. He then awoke and called for brown bread; and he continued to demand this, with great vehemence, until he had eaten three large slices. He retained them all, and from that time was convalescent. For several weeks he experienced nausea whenever he attempted to swallow animal food, although he chewed it abundantly. His health has, since that time, been perfectly restored.

At first he did not take any medicine, but when the symptoms became very distressing, I was induced to attempt giving relief. Two remedies evidently benefited him; the one consisted in hot fomentations to the epigastrium; the other was magnesia administered internally.

It seemed evident in this case, that the copper was undergoing solution in the stomach. This does not always take place where pieces of copper are swallowed. That it was taking



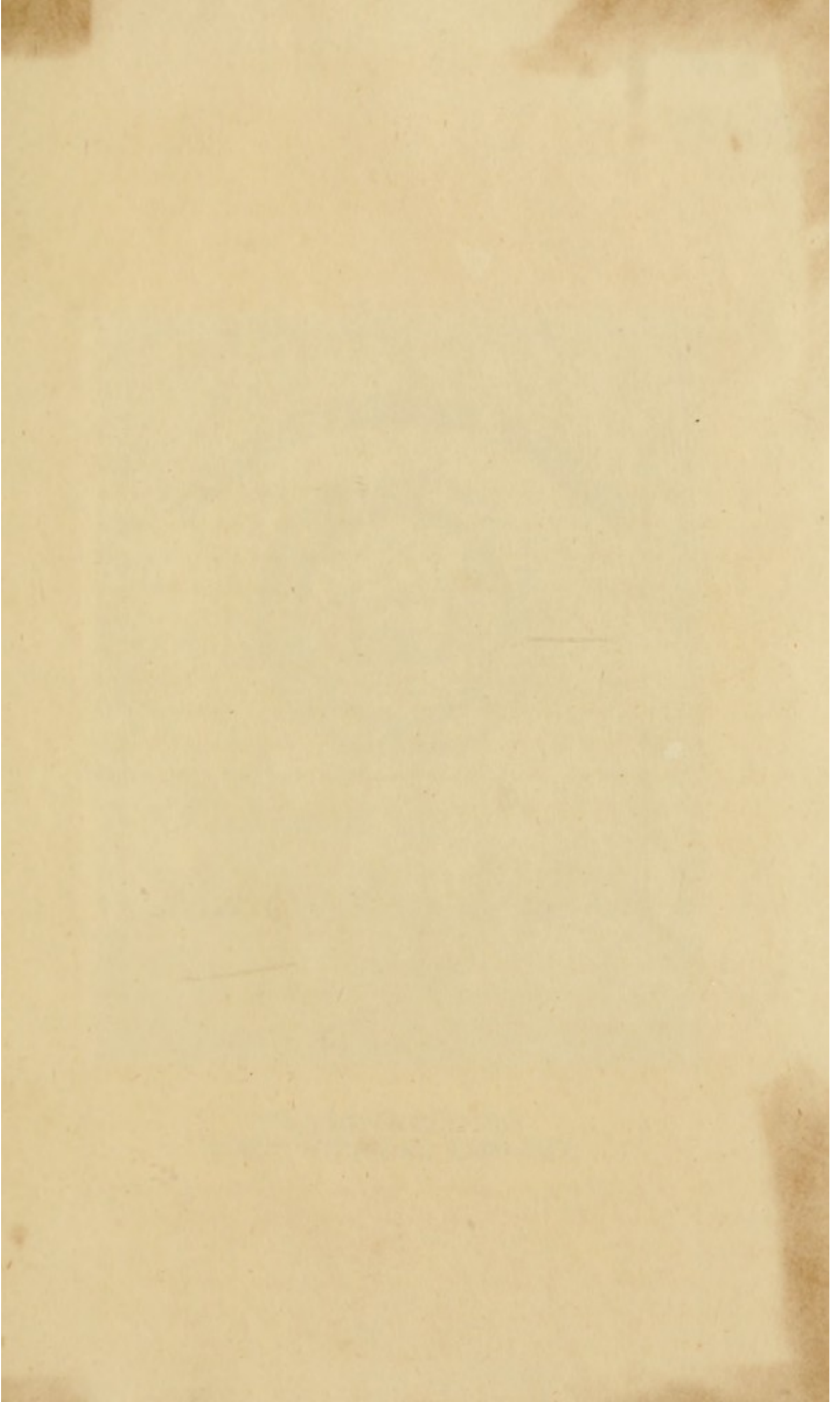
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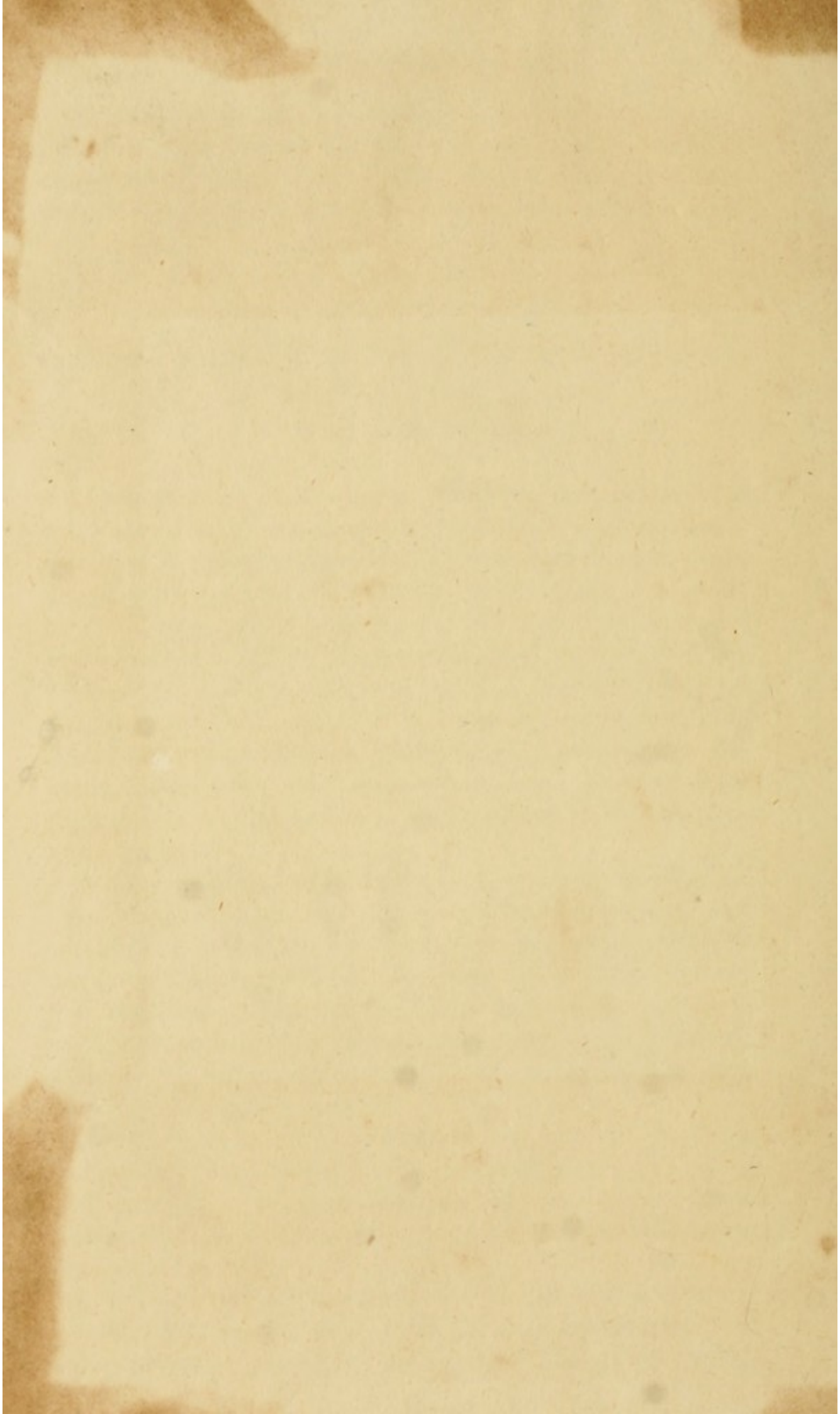
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IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE
MAY 18, 1870

WASHINGTON: GOVERNMENT PRINTING OFFICE: 1871.

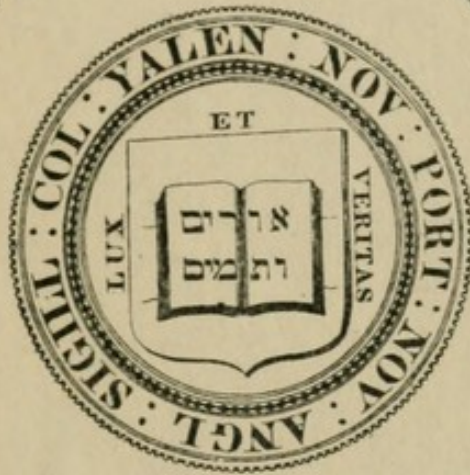
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