

## **A treatise on the medical properties of mercury / by John Howard.**

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T R E A T I S E

ON THE

MEDICAL PROPERTIES

O F

M E R C U R Y.

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By JOHN HOWARD, SURGEON.

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*Quantumvis enim ptyalismus ad plenum nunquam assurget, æger tamen copiosius quàm pro more solito expuet, et fætor justæ salivationis comes neque imminutionem hanc desituet: unde evincitur sanguinem et humores eam siue putrefactionem, siue alterationem, quacunque ea demum sit, attigisse, quæ vel parit salivationem vel cum eâ nascitur.*

Syd.

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## P R E F A C E.

**I**N the following work an attempt will be made to investigate the medical properties of mercury, and afterwards to apply them to the cure of some of the most formidable diseases affecting the human body.

The First Part consists of practical observations on the well-known method of using mercury under confinement, commonly called Salivation: the Second takes into consideration its effects as an alterative antivenereal: with some strictures on the use of sedatives, in the *Lues Venerea*. At a future opportunity will  
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follow Remarks on the Natural History of the *Lues Venerea*, including the *Gonorrhæa Virulenta*, and the Treatment of Particular Symptoms: which will finish the whole of what I have to say on that disease and its antidote.

Though my intention is, if health and life should permit, to give at some future period a general view of the operation of this wonderful medicine in some other diseases, I have thought it most conducive to the end and scope of my design, to begin with its effects on the *Lues Venerea*. First, because this single object is of the utmost importance to mankind, and indeed demands from every practitioner a more liberal communication of facts than has hitherto prevailed on this very interesting, but too much neglected part of physic.

Secondly,



Secondly, because the very free manner in which we are obliged to employ it, for the cure of the *Lues Venerea*, will give out, to use the language of chymistry, more of its hidden qualities than can be collected from its use in any other disease to which the sagacity of man has hitherto applied it. From hence, as from a fixed point, its most useful properties may be in some measure developed and our enquiries sent forth, in all directions, amongst the numerous catalogue of diseases to which we are liable, in search of a judicious selection of such cases as seem more particularly to require the various alterations which it is capable of producing in the human frame.

It possesses at different periods of its operation seemingly very opposite me-



dicinal powers. Thus at one period it is a very efficacious and speedy cordial, at another it weakens; at a third, and under certain circumstances, it strengthens; and, though a strengthener, is a very considerable evacuant; and in every mode of exhibiting it, increases the action of the absorbents, &c. These qualities point it out, as a remedy of the very first magnitude in dropfies.

Have we any medicine for this disease, in which these essential effects are so happily combined? Is there any other except bark and cicuta with which it can be compared as a promoter of kindly suppuration and granulation in some species of ulceration? Is there any of superior efficacy for maturing the pustules of the small pox when there is no tendency to putrid diathesis?



diathesis? And future experience may perhaps shew that it is a cure for that most dreadful of all maladies canine madness. I mean when freely exhibited, in the most early stage of the disease, to the point of full and perfect salivation: and this perhaps it may effect by bringing on that very extraordinary putrefactive revolution in the system which this medicine, and this only of all other known substances, has the power of producing. It is a very safe and efficacious deobstruent in obstructions of the menses, and even in some cases of indolent schirri, either used *per se* to the system and diseased gland, or joined with the external application of cicuta. Plummer's alterative pill, when given under a cooling regimen, with a diet chiefly consisting of milk and vegetables, I have



have known stop and keep at bay the usually very rapid progress of a cancer. And perhaps such a course of mercury as shall occasion a considerable change in the state and condition of the lymph and other animal juices, will, after the fund of mischief, the cancerous part, has been fairly removed by an operation, prevent the recurrence of the disease; though both the system and such part were much too irritable to bear the action of the medicine before extirpation.

These are only a few of the complaints to which this mineral seems more particularly applicable, the present practice warrants its use in many other cases, and future experience alone can determine to how great a number of diseases it may be extended.

If



If what has been, and in the following sheets will be said, should prove sufficient to rouse up as free a spirit of enquiry in this branch of medicine as in some others, to which a due degree of attention has been paid, I shall, let the fate of my work be what it may, think myself amply repaid for the time spent in making observations on the facts which have fallen in my way, and for the anxiety I have felt in the endeavour to make my ideas known to others; fully sensible that with regard to the properties of mercury they need only to be fairly investigated to render them still more interesting to the profession and to mankind in general.—And if my exertions can in the smallest degree tend toward the completion of an undertaking in which the united talents of



many will certainly be necessary before it can be brought to a tolerable degree of perfection, I shall be satisfied in having done my part, and added something to the general fund.

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## PART I.

# SALIVATION.

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**T**HE devastation made by the sudden and unexpected appearance of the *Lues Venerea* toward the close of the fifteenth century, called forth the attention of mankind to the wonderful properties of Mercury; and fortunate it was for the human race that the knowledge of the remedy followed in a few years after the propagation of the disease. Quicksilver extinguished, by rubbing it with axungia or some such substance, had long before the æra of the *Lues Venerea*, even from the days of Mahomet, been recommend-



ed for some cutaneous diseases by the Arabian physicians; but it had been always used sparingly, and with the utmost degree of caution.

At first some of the most ignorant in matters of science ventured on its application to the *Lues Venerea*; from these it passed into the hands of Berengarius Carpenfis, a very able surgeon, who employed it with astonishing success, and is said to have acquired an immense fortune by this new practice: after him it was adopted by Johannes de Vigo, and others. It is somewhat singular that many of the medical writers in the beginning of the sixteenth century were, notwithstanding the evident utility of mercury, for a number of years, with very unbecoming obstinacy, attached to their old Galenic rules. But at length, though the prejudices against it were vehement, and though many errors must have been committed, during its early exhibition, by a rude and indiscriminate application, yet so striking were



were its effects, that it justly made its way against every obstacle.

There are three general methods by which mercury may be absorbed into the system, so as to be capable of acting on the constitution, and on the disease. First: It may be absorbed by the cuticular pores almost in any form, but modern practice has adopted only one, namely, that of inunction. In which the crude mineral, after purification, is extinguished by long triture with hogslard, or some such substance. The patient himself rubs this composition into the thighs, legs, or some other large surface of his body, with his naked hands. The physicians and surgeons of the sixteenth century frequently caused the particles of mercury to enter the circulation by the same route, but in a different way, by fumigating the denuded body; but this practice has been long out of use.

Secondly: It may be received by the mouth in a state of vapour detached from

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fulphur,



fulphur, by means of heat, as in the common method of fumigating the internal parts of the throat.

Thirdly : It may be taken internally in a great variety of forms.

Each of these methods of introducing the medicine will ultimately raise the same, or nearly the same symptoms of salivation and its attendants. But there is a very great difference as to the manner in which they operate in bringing about these changes, and there is also some as to the certainty with which they act on the disease.

Inunction is the most simple, and at the same time the most certain method of employing mercury ; and, generally speaking, ruffles the constitution much less than any other. In this way it may be received into the system, and completely mixed with the circulating fluids in any given quantity, and when the mouth becomes at length affected, it is in some measure secondarily ; that is, from the natural attraction or tendency



of the medicine to the salivary glands, after it has gone the round of the circulation in a fair and equable manner. Perhaps it acquires the antivenereal effect, or what has been improperly called its specific power, in consequence of a preceding or attendant internal alteration produced in the animal fluids and on the living power. This change it brings about with the least possible disturbance to the machine, neither irritating the mouth or digestive organs but as a general stimulant. The only inconveniences of the method are an herpetic kind of eruption which sometimes arises from its local stimulus on the part rubbed, and the labour of performing the frictions properly: But these inconveniences are trifling when compared with the manifest advantages it possesses over every other method.

The modern practice of receiving the mercurial vapor from a decomposition of cinnabar by means of heat, simply by  
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the mouth, has been most frequently ranked among the most powerful mercurial topics; and has been used, not so much with the intention to operate on the system in general, as to stop the rapidity of a particular symptom, by its immediate and local application to the part diseased; and hence it has constantly been recommended as a powerful means of stopping the progress of a spreading ulceration of the tonsils, uvula, &c. But I must observe, that when thus employed, although its action is twofold, it is by no means so extensively useful as the method first described. For though it has certainly a powerful partial, yet it has at the same time but an uncertain, and in some habits a very weak general, effect on the system; and for that reason it follows, that whenever a more than ordinary disposition to salivation and its consequences prevails, this, as well as every other method of applying mercury directly to the salivary glands must be precarious; or, in other words, its immediate



diate stimulus, on the organs which furnish the lymphatic discharge in salivation may bear an over proportion to the quantity of mercury admitted from the absorbents and in actual circulation with the general mass. This observation is particularly applicable to all those who from the natural sponginess of their gums, from a scorbutic acrimony in their blood, or other causes are predisposed to salivate readily. But when the contrary disposition prevails, and there is a great difficulty in raising salivation, and the proper concomitant internal changes, the disease being at the same time very little altered; in that case a cinnabar fumigation, or perhaps any other local mercurial stimulant, will act with the most clear and decisive efficacy; and by imparting to the medicine the property it wants, the power of salivating; the cure of the disease immediately follows the painful affection of the mouth and salivary glands. And when a powerful salivation follows  
 this



this local stimulus, from the vapor of mercury, its general is sometimes no less remarkable than its partial effect, and seems to cure as perfectly as any other method.\* But it is not by any means so universally applicable to every constitution as frictions.

Mercurials used internally are of various kinds and of different degrees of strength. In all of them the power of raising salivation and its usual attendants seems to be the predominant property; but they also act with more or less irritation on the stomach and bowels: thus *Turpeth. min.* in a full dose operates as an emetic—*Mercur. calc.*—*Calomel*—*Mercur. alcaliz.*—*Argent. Viv. cum Balf. Sulph. ext.*—*Solut. Subl.* even in small doses will frequently become highly purgative. This effect makes them inconvenient to those who have tender bowels; not only from their stimulus on the intestinal canal, but because under the circumstance mentioned, only a small portion of the medicine can enter the circulation.

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\* Vide page 18.



It was formerly a practice to give the *Turpeth. min.* in the dose of eight grains, as an emetic, by way of revulsion in the *hernia humoralis*, but this has been long since disused; however there are some practitioners who still employ it in very small doses, as half a grain, with some other less irritating preparation of mercury, and with considerable success.

*Mercurius Calc.* The crude mineral employed in the preparation of this medicine, is generally thoroughly purified, and after it has undergone a calcination for some months, is neither increased nor diminished in its original weight; so that it is not only more free from admixture with foreign substances, but more pure than any other chymical preparation. It is very active, and at the same time perfectly safe. It should be levigated with the utmost care to the greatest degree of fineness; and when so prepared will salivate very readily. It is however apt to run off by stool in those whose bowels are weak and irritable.

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*Calomel*



*Calomel* as an antivenereal is not, I believe, so powerful as *Merc. Calc.* It is however when levigated thoroughly, and this operation cannot be done with too much care, both a safe and efficacious preparation. Though both this and the *Merc. Calc.* are in large doses highly purgative, yet it is no uncommon thing for moderate doses after two or three days exhibition to set perfectly easy; the intestines becoming in a short time accustomed to the stimulus, and when they irritate too much may be restrained by being joined with opium.

*Mercurius alcaliz.* and crude mercury extinguished by trituration with *Bals. Sulphur.* irritate the digestive organs much less than any other preparation of mercury used internally that I have hitherto employed. They will salivate very readily. But the last is by far the most powerful, comes the nearest in its operation and effects to frictions, and possesses so great a degree of antivenereal power, that I have known it cure when  
not



not only these, but every preparation already mentioned, has failed.

*Solution of Corrosive Sublimate.* In this preparation the powers of the medicine, as an antivenereal, are greatly limited by its extreme acrimony. Though by giving the solution in small doses for a length of time, we can sometimes very certainly cure, both when the intention is to salivate, and when it is not. Yet, whenever it is exhibited in a constitution accustomed to the stimulus of mercury, and in some others in which the antivenereal change in the system is with difficulty raised, the quantity of the medicine in actual circulation being small, the impression made on the habit is often too weak: other antivenereals must therefore be joined with it to obviate this inconvenience; thus frictions, *Merc. alcaliz.* or *Merc. crud. Balf. Sulph. ext.* may be added; and from the operation of the two medicines there will frequently result a degree of power which they do not possess singly. The best ve-



hicle for *Corros. subl.* is brandy ; which should be diluted with a large portion of some watery fluid. Liquorice tea disguises the metallic taste of the medicine better than any thing I have tried.

Some one or more of the preparations just described, are, in general, used for the cure of the *Lues Venerea*, and are exhibited under two very different methods.

In the one, the patient is closely confined to his chamber or house ; in the other he takes exercise in the open air, and follows with some restriction his ordinary pursuits. The first, from the consequences generally following it, may be called salivation, though by the bye it sometimes cures without bringing on either a sore mouth or considerable discharge of saliva. The last, from the very slight degree of salivary affection aimed at by the surgeon, may be called an alterative course.

In



In the method of cure under confinement there is a quick accumulation of the medicine in the system, and a rapid progress in its effects. In the alterative method, a slow one. In this last, however, the quantity taken in the aggregate is generally much greater, and hence some have insisted that it must be more completely curative ; without entering at present into this matter, we shall only observe, that each method has its advantages and disadvantages : there are particular habits in which the leading circumstances of the one method are more applicable than the other : there are certain stages of the disease which yield much more readily to the one than the other, and it is the province of surgery to point them out.

Those who have principally favoured the alterative method have not failed to set before our eyes the pain, the confinement, and other unavoidable inconveniences of the other method. Some of these however they have greatly exaggerated



aggerated, and, as if their sole aim had been to influence the passions and ill-founded apprehensions of the weak and timorous part of mankind, under the word Salivation they have indiscriminately, and in the lump, reprobated every mercurial affection of the mouth whatever; without affixing a precise or determinate idea to the term; without noting the difference between salivation under confinement, and that kind of fore mouth which eight times in ten follows the alterative method, or what is more to the purpose, distinguishing between a short and a long continued ptyalism, a slight or a violent one. But unfortunately amidst all this their love of refinement, they have omitted to point out the inconveniences (and there certainly are some) of what are called alterative methods. Thus, by giving only a partial view of one of the most important practical questions in the whole circle of physic, they have persuaded all those who are not competent judges, and these



these, I fear, are not a few, that a process, which in skilful hands is totally devoid of danger, and which in general is not only the most certain but most speedy method of curing the worst and most inveterate stages of the disease, should be decryed in every instance whatever: for it has been said, with a great deal more boldness than truth, to be never necessary. This doctrine, I am sorry to say it, has gained ground amazingly, from that natural bias the human mind ever will have to avoid what, in speculation seems and what in fact sometimes, is a painful remedy. It has from those who were not thoroughly conversant with the subject crept into our schools of physic, and there are many well-disposed people who still believe it rather retards than promotes the cure of the disease. This is by no means the whole of the mischief it has done. It has led many young people astray, and induced them to separate two things in practice which are generally, and which ever should be, insepa-



inseparable: I mean the antivenereal power of mercury from its well-known tendency to cause an affection of the mouth. Hence it has happened that the single circumstance which most indisputably characterises the action of this medicine from every other, has been of late years but little attended to; and we have been taught to believe, that we could in all cases know when it has properly entered the circulation, and ascertain its effects on the disease by other circumstances. Notwithstanding which, it might be proved with the utmost ease, that be the method or preparation employed what they may, a tenderness of the mouth is, of all the *external* most obvious effects of the medicine, that which most certainly and unequivocally marks its antivenereal power on the disease; and that the single hinge on which success turns in every case, no matter by what method it be treated, is the change which takes place in the system at the approach of, and during salivation.



vation. It is true, this change may be brought on in some constitutions with but a slight affection of the mouth, but it is no less so, that a considerable one is most frequently raised before the decisive and necessary alteration can be produced on the disease; I mean before an obstinate primary or secondary symptom can be cured.

If we for a moment reflect on the peculiar state of the salivary glands when mercurially sore, how totally different this is from the other obvious effects of the medicine, and how much more likely the skin, the kidneys, and the intestines are to be influenced by adventitious circumstances than the mouth; we shall at once see, that neither increased perspiration, preternatural flow of urine, nor any laxity of the bowels, short of a dysenteric kind of purging, can measure the antivenereal power of mercury with so much certainty as salivation. How often do we see the most rebellious secondary symptom withstand the fair in-

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troduction



roduction of a very large quantity of the remedy, without perceiving the smallest favourable alteration! but upon the first appearance of symptoms of salivation the scene immediately changes; the farther progress of the disease is stopped at once, and from the most, malign, suddenly puts on the most benign aspect. What fully evinces the amazing influence of this effect of the medicine, the amendment does constantly and invariably keep pace with the internal changes at such time going on in the system. And when this process takes place *fully* from a very small quantity of mercury (an accident which sometimes happens to the most careful surgeon, though he does his utmost to avoid it) the revolution seems, and perhaps in a few cases actually is, as completely antivenereal, as when twenty times the same quantity has been used.

\*This is a proof, that the good effects

\* In the year 1770, a gentleman who had had the disease upon him for years, applied to me with the following symptoms:—Very distressing venereal pains—nodes on both *tibiae*—a few vene-



fects are not ascribable to the mere quantity of medicine, but to some other cause.

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real eruptions on his body—the *alæ nasi* ulcerated—the *septum narium* so greatly corroded, that there was a very large opening from one nostril into the other—ulcerated *tonsils*—and a large venereal ulcer on the posterior part of the *æsofagus*, with great emaciation. The first night he rubbed in *Ung. Mer. fort.* ʒj. and took *Calomel* gr. ij. and in the course of that day, to stop the further progress of the ulcerations in his throat and nose, *Cinnabar* ʒss. in the way of fumigation; as these seemed on the following day to have produced no sensible effect, at twelve o'clock at noon he fumigated again with the same quantity of *cinnabar*; before ten at night he had all the symptoms of an approaching salivation, but did not take a grain more mercury for nine days; the salivation, fætor, &c. were considerable; the symptoms immediately gave way; the nodes soon disappeared; the ulcerations put on an healthy appearance, and when, after nine days continuance, the flux began to subside; though he actually seemed to be in a manner well, yet having often observed that a rapid salivation from a small quantity of mercury sometimes deprives the surgeon of an expected cure, the spitting was moderately kept up by frictions, and not discontinued till he had used two ounces of the *Ung. Mer. fort.* afterwards he was put upon an alterative course,



cause. Sydenham, whose sagacity in describing the natural appearances of diseases, was only equalled by his honesty in fairly relating the operation of medicine on them, believed the *Lues Venerea* was not curable by any quality of mercury, purely specific, but by salivation only. However much that doctrine may contradict modern opinions in this and other countries, a rigid mercurial course under confinement would never be had recourse to as the last resource of the unfortunate, when the violence of the disease has repeatedly baffled the several alterative methods now in vogue, if it had not a superior antivenereal power. The consequences resulting from a fair and full affection of the salivary glands, were too striking to escape the discernment of this great man, who has very judiciously connected the most obvious and

taking *Calomel* gr. ij. *omni nocte cum decoct. sars.* lbj. per diem. He is now living, and never had an ach or a pain of the venereal kind since—nor the smallest return of any one venereal symptom.



and general effect of the remedy with the cure of the disease. Subsequent writers have endeavoured to gain the same end by different means; but the great, the leading principle has remained to the present day, somewhat changed indeed, but not materially altered; for we must in most cases, and in every method of treatment, still look up to a mercurial affection of the mouth, if we mean to make perfect cures in so rebellious a disease as the *Lues Venerea* really is.

A rigid mercurial course under confinement, in which the doses of the stimulant are large and repeated at short intervals, whether the affection of the salivary glands be considerable or otherwise, I call salivation; and I say the more violent the affection, *cæteris paribus*, the greater will be its antivenereal power.

But I do not intend to mislead; this power is certainly in some instances to be obtained, even under the closest confinement,



finement, without salivation; or at least with so trifling an affection, as not to deserve the name: as when a copious secretion from the intestines or other parts makes up for the deficiency. And cures are sometimes performed in a few excentric cases, without a discharge of saliva, or any other very remarkable evacuation. This can be no argument against the great utility of the method under confinement, nor against the propriety of affecting the mouth; it only shews that the internal, most essential effects of the medicine may, and sometimes do follow without any external mark or symptom, strongly denoting the operation of the medicine as a powerful evacuant. It points out that nature is every way equal to her own work, and can supply in some secret manner this seeming defect. But by no means that we can constantly produce the decisive antivenereal changes in the animal fluids at pleasure, without their most frequent attendant, a salivary discharge; indeed excepting



cepting this kind of case, and those in which some other outlet supplies the place of the evacuation, salivation and the internal changes go hand in hand.

A predisposition to a sore mouth cannot always be known *à priori*; nor, so uncertain is the operation of mercury, can the evacuation be prevented in some constitutions, if it could. There are a great number of cases in which the medicine must be introduced in full doses, and with as much expedition as is consistent with safety, if we mean to stop the progress of an alarming symptom; the internal changes on which the antivenereal power more immediately depends must be brought about as soon as possible; of course salivation is a subordinate consideration, and must be risked. Under these circumstances the idiosyncrasy, more than the management of the surgeon, will determine whether the mouth shall be much or little affected; but be that as it may, the inconvenience must



be submitted to, because it is, for the most part, unavoidable.

What has been said of the great anti-venereal power of a regular mercurial course under confinement, in which a greater or less degree of salivation generally arises, is not only true in fact, but a very good reason may be given why it is so.

When the medicine cures, and no remarkable evacuation has followed a plentiful introduction of mercury, under confinement, amongst other effects may be observed inflammatory diathesis, prostration of strength, and general emaciation, perhaps with some small degree of feator. Though these symptoms are never raised in such a case without some difficulty and by a long continued use of the stimulant. If they were never perceivable but when salivation was taking place, we might say that the *Lues Venerea* was only to be cured by producing a considerable affection of the mouth and salivary glands. But since experience teaches



teaches us, that cures are sometimes performed without this effect of mercury, some other principle must be sought for, to elucidate this very difficult problem; and the truth perhaps is, that inflammatory diathesis, prostration of strength, emaciation, and fætor point to other changes in the system, which may be very properly said to be *internal*: the whole number of which have not yet been discovered, but some however we do know: among which may be reckoned a melting down, attenuation, or singular species of putrefaction of the animal fluids. These, if I mistake not, take place when the medicine does not, as well as when it does salivate; I mean when it cures, and they are what I would call the *decisive anti-venereal effects of mercury*.

Let the affection of the mouth be what it may, these internal changes, if they be properly brought on, and continued for a sufficient length of time by

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the stimulus of the medicine, will eradicate the poison, and perfectly cure the most inveterate secondary symptoms of the disease. As I have already hinted they will sometimes cure without any very considerable or sensible evacuation from the system, but it most frequently happens that whilst this putrefactive process is going on internally, there is a correspondent very surprising effort imparted to the system of forcing open, as it were, by the impetus of the medicine, one or more outlets or sets of excretory vessels, and stimulating them to a discharge of their fluids. When these two circumstances concur, the antivenereal power is most rapid and striking, and seems to point out that when once the putrefactive process is fairly raised by the medicine, the properties of the animal fluids are not only altered, but that the venereal virus connected with those fluids, or attached to the living power, actually undergoes a similar change with them: and when  
fitted



fitted for expulsion, by this wonderful operation, is thrown off or evacuated from the system. And the true cause, I believe, why the course I am about to describe more particularly, most frequently cures with the greatest ease and rapidity, in the very worst stages of the disease, is not simply because it salivates, but because in that kind of course in which a considerable affection of the mouth generally comes on, the medicine acts with the greatest force, producing in the most perfect manner all the requisite internal changes. And as a fair salivation will give the fullest view of these singular phænomena, I shall proceed to a description of such parts of this process as appear to me likely to illustrate the doctrine I wish to establish.

A man is ordered for a venereal complaint to confine himself to his room, and is wholly or in part debarred from the use of spirituous and strong fermented liquors, and such generous food as he had been accustomed to in a state of



health. The confinement obliges him to breathe an air very different, as a respirable fluid, from that of the external atmosphere, and this circumstance alone strongly disposes him to weakness and putrefaction. In this situation he rubs in a small or full dose of the *Ung. Merc. fort.* according to the urgency of his symptoms, and his supposed predisposition to salivation, every night; night and morning; or every second or third night. The first effects of the medicine are those of a general stimulant, an increased heat, with a pulse more frequent, fuller, and stronger than natural. These are most evident soon after the frictions, especially if the stomach should happen to be, at that time, loaded with food: those who have rubbed in several doses have very frequently a remarkable beating of the temporal and carotid arteries, which they feel soon after the introduction of the medicine when they are warm in bed. In a short time from the commencement of the course, when the patient



patient awakes in the morning he perceives a clamminess of his tongue; an uncommon metallic taste in his mouth; some degree of thirst, with an uneasiness in his head like that from hard drinking, and with a similar kind of languor and acceleration of the pulse. In proportion to the number of frictions employed, and according to the care taken to get the particles of mercury through the pores of the skin, so is its accumulation in the system considerable, or otherwise. The disturbance once raised by a single friction is gradually kept up by those which follow: and thus an increased action in the several vascular systems of the body prevails constantly, by day as well as by night, with an artificial febrile exacerbation (if I may be allowed that expression) which is generally most evident at night, a short time after each friction. After the stimulant has thus operated upon the system in general, for a shorter or a longer space of time (for it is matter of great uncertainty,



ty whether the following symptoms are raised by two or three doses, or by a greater number) a considerable increase of the general inflammation, disposition to costiveness, enlargement and tenderness of the salivary glands, languor, heat and soreness of the gums and parts within the mouth, an unusual flow of saliva, and fætor of the breath arise. These are at first not very distressing; but if they go on so as to form what may be called full salivation, they very soon become considerable. The symptomatic fever is increased still more, the salivary glands and gums are painfully tender; the sides of the tongue, the tonsils, the orifices of the salivary ducts, and the internal surfaces of the cheeks become ulcerated; he is spitting every minute, or perhaps the saliva dribbles out involuntarily and the cheeks and lips are somewhat preternaturally swollen. The fætor, which was before trifling, is now extremely great, and taints the room to such a degree, that upon opening the chamber door,



door, a judge, without looking at the patient, or enquiring whether he was in a salivation, from this circumstance of fætor would know he was in that situation. The pain and constant irritation to spit keep him awake, and almost deprive him of sleep; he feels himself inexpressibly languid; becomes suddenly thinner, and from the determination of the circulation and living power to the fauces and great dispendium of saliva, the costiveness, which came on at the commencement of the flux, sometimes continues throughout the whole of it; till the salivary discharge and local irritation about the fauces are almost subsided. What is remarkable, the costiveness is sometimes the forerunner of the other symptoms, and points out the approaching storm. Before the affection of the mouth has gained the height just described, a favourable alteration is generally perceivable on the face of the disease; but sometimes when the symptom is an old secondary, or even an obstinate



stinate primary one, as an ill-conditioned spreading chancre, the factor, and other symptoms of salivation must be very considerable before the proper healthy change can take place.

Sydenham says, that the symptoms generally go off after the fourth day from the height of the salivation; and that is certainly not unfrequently the case, but it sometimes happens that they go off more gradually, and sometimes much sooner, even in a few hours, when the revolution is rapid and violent. A man shall have a venereal node or venereal sarcocele over night, and they shall be gone by the next day; another shall have a small chancre, or venereal fore throat, the former shall be perfectly healed in as short a space of time, and the latter shall almost immediately alter its venereal appearance, and look like a healthy granulating sore. Sometimes, though the surgeon shall be some days, perhaps weeks, before he can raise a proper affection of the mouth, the disease will,

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during the whole of that time, remain unaltered, until that period arrives at which the salivation and its usual attendants become considerable; then, but not till then, does the decisive revolution commence, which is to end in the perfect cure of the disease. So that the change from sickness to health is more or less sudden, according to the violence of the symptoms produced by the medicine: and the cure seems brought about more by salivation and its immediate consequences, than by the preceding long continued application of the stimulant. Though there can be no doubt but that a proper degree of stimulus from a sufficient quantity of mercury is to the full as necessary in the cure, as salivation, or any of its attendants, though its action on the disease is not so evident: and it is only by an happy combination of these and other circumstances that success is to be expected. The quantity of saliva discharged is variable; sometimes it continues to flow for a considerable time af-

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ter the process has got to its height, and at another, though the ulcerations shall be general, and all the other symptoms in due degree, yet the discharge of saliva after the first two or three days shall be small in quantity. It may be right to remark on this symptom, that though we have been recommended by some of the best authors to regulate our conduct by the quantity of saliva evacuated, and in some cases it may be a good rule, yet there are other and better criteria by which we may measure the antivenereal power of the remedy on the disease. These may be gathered from the quantity of mercury employed and retained in the system without running off too hastily by any one or more outlets; from its effect on the disease; from the degree and duration of the putrefaction of the fauces and several fluids of the body; from the languor, weakness, emaciation, &c.—that there is a particular species of putrefaction is evident from all the symptoms. The languor and weakness, which  
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are always considerable when the medicine acts powerfully as an antivenereal, in every mercurial course, would lead to a suspicion that the change in the circulating fluids was of the putrid kind: But when to these are added other circumstances, and in particular the factor, which probably arises, as well from the lungs, as from parts within the mouth, the opinion seems to be indisputable. Why does blood drawn from a person in an high salivation, or from one whose system is loaded with mercury, in the act of removing venereal symptoms in an alterative course, when it shews only a tendency toward salivation, always flow from a wound, be it ever so small, with uncommon freedom? Why does it appear broken in its texture, and thinner than natural, if not from a very singular kind of attenuation or putrefaction it is then undergoing? Why is the urine generally of a dark brown colour, sometimes with a sediment like dirt, if not from the same cause? Does



not that very remarkable costiveness which frequently continues in some salivations for a week, ten days, a fortnight, or longer, considerably heighten this power in the medicine of raising a general state of putridity?

It should be particularly noted, that throughout the whole progress of salivation, even at the period when the ætor and prostration of strength, &c. are at the height, there are latent symptoms of strength generated by the stimulus of the remedy, combined with but kept under by those of putrefaction; which do not indeed then appear, but which immediately shew themselves on the subsidence of the flux. Hence it is that though a man after salivation comes out from his confinement much thinner than he was before, yet he looks well, and has an uncommon propensity to reacquire speedily his former health and strength; his spirits are good, and have been rising from the time the symptoms of putrefaction began to decline; he is voraciously



voraciously hungry; the quick depletion of his vessels is followed by as sudden a repletion, and he generally becomes fatter than he was before. There are then two opposite effects arising from a powerful action of mercury; one of which promotes, and the other retards putrefaction. We can trace this power in the early exhibition of a mercurial course till weakness is produced; we then lose it for a time, but the moment it ceases to weaken, its propensity to invigorate shews itself again. And from this circumstance it is, that if in any mercurial course the genuine antivenereal effects have not been raised, and the further application of the stimulant is discontinued for two or three days, the symptoms of strength so soon appear, and get such entire possession of the habit, as to render a subsequent attempt to raise symptoms of putrefaction difficult. It also, in some measure, explains why the second production of salivation is often not so easy, or to be effected by so small  
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a quantity of the stimulant, as the first : I mean when the first salivation has entirely subsided and the medicine been fairly evacuated.

Mercury acts as an universal stimulant upon the irritable parts of the system particularly upon the lymphatics; and this is perhaps one reason why venereal bubos frequently suppurate at the close of a severe mercurial course. This system of vessels has its power of absorption increased, not only before the operation of the medicine has produced salivation, but also when it is actually present; and after, when the patient has suffered a thorough depletion of his vessels, and is re-acquiring his former strength\*. These vessels are certainly the

\* The sudden emaciation immediately coming on at the commencement of the internal putrefactive process, would incline one to suppose that at that period the absorbents are acting with the greatest power; but the following case seems to shew that this power is most prevalent in the convalescent state of the patient, when, after a considerable depletion of his vessels, the strength is



the canals by which the venereal poison enters the circulation; and they may perhaps be the outlets by which it escapes, after it has been changed, as already observed, by undergoing a similar putrefactive process with the blood. Perhaps even the natural properties of the lymph may be altered.

The languor and prostration of strength point out an affection of the nervous power also as well as the putrefaction of the fluids; for in every stage of the *Lues Venerea* this part of the system is in one shape or other acted upon, if not altered by

returning under the influence of air, exercise, and a generous diet:—A gentleman, some years ago, having a venereal farcocele of one testicle, and an hydrocele on the other, with eruptions, &c. was under the necessity of undergoing a salivation for a cure:—the farcocele was perfectly removed, with the other venereal symptoms; but the hydrocele remained unaltered. Within a month, however, from the time of cure, to his great surprise, he found his hydrocele insensibly diminish; and at last disappear; leaving the testicle fuller than natural, but without the smallest perceivable portion of water.



by the poison : even in its first symptom, a chancre, the nerves of the part on which the fermentation of the infectious fluid produces ulceration are in a morbid state : a degree of irritability being constantly imparted greatly beyond what they ever possess naturally. And, when the disease is more advanced, there is a general disposition to metastasis ; which never leaves the patient entirely till he is perfectly cured : and this is perhaps owing to a morbid modification of the nervous power, generated by disease. So that it is probable that mercury may have a further operation on this part of the system, over and above that already mentioned, arising from the production of a singular species of putrefaction of the fluids.

Let the course be what it may, whether salivation is considerable or otherwise ; the number of frictions, whether more or less, should if possible form one well-connected and uninterrupted whole. Each preceding friction should leave an  
impression



impression which should be kept up and increased by those which follow. And in that manner should a fair accumulation of the particles of mercury be effected; which, toward the close of the course, should act as one large and entire dose on every the most remote part of the system. Without a careful attention to this rule, in some habits, neither the proper action of the vessels, nor putrefaction of the fluids can be brought on.

From what has been said, the reader will immediately see why a quick application of mercury, under confinement, diminishes its tendency to act as a strengthening stimulant: at least for a time. And why a slow introduction of the same medicine as in an alterative way, with a free allowance of good air, exercise, and a substantial diet, promotes it. The predisposing causes of putrefaction, which are constantly present in the one method, but wanting in the other, will for ever distinguish them as means of cure: and point out the

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propriety



propriety of applying either the one or the other according to the prevailing idiosyncrasy of the patient.

It has been already observed, that if the medicine salivates fully and with violence, it will sometimes cure, though the quantity received into the circulation be remarkably small. But many such kind of cases are liable to great suspicion. For, among the constitutions most readily affected by small doses, there is one which cannot always be known *à priori*; in which the stimulant is apt to run off too hastily by the mouth, without making the proper impression on the other parts of the system. This kind of habit I call scorbutic, by which term, I mean a general tendency to putrefaction. In such constitutions, without the utmost care on the side of the surgeon; even repeated salivations will sometimes fail: the medicine suddenly laying hold of the mouth, the symptoms being violent, and the flux great, he is thereby for some days precluded from the  
further



further use of the remedy ; the salivation continuing till the patient is greatly weakened, at length stops *re infecta* ; the quantity of mercury received, having been not only too small but evacuated too soon.

In a case of this kind, a cure was attempted by four salivations and they all failed. Some of the symptoms of the disease being only mitigated, and some changed into others ; the disposition to metastasis remaining. In this instance a perfect cure was at last obtained by counteracting the too great disposition to salivation and putrefaction ; by avoiding confinement for a considerable time, and by recommending daily a guarded exposure to country air, with a plain strengthening diet, divested as much as possible of stimulating substances ; and under cover of these, causing a larger accumulation of the remedy in the system than in any of the preceding courses. By this management a fifth salivation, more violent and of longer duration than



any of the former came on, as the others had done, without the surgeon having it in his power to prevent it: but this was followed by a permanent cure, and is one proof, amongst many others, that might be given of the inefficacy of an alterative course of mercury, and great power of salivation in particular stages of the disease. \* From this case the great

\* This gentleman came from abroad emaciated to the last degree, and covered from head to foot with eruptions, not of the true copper colour, but florid, and containing a kind of watery fluid, like the ichor of the itch; he had no pains, but before the eruption appeared, had suffered much from what he called the rheumatism. As it was possible his complaints might not be of the venereal kind, a weak mercurial cerate was applied to his sores; in two or three days it salivated him; the pustules which before contained a fluid and were prominent, by the action of the salivation, subsided, and the marks left had the true copper hue: a node on each elbow near the olecranon soon appeared after the subsidence of the flux, with a fresh though less considerable eruption. When he had been to appearance sufficiently strengthened by bark, &c. an internal mercurial in a very small dose was given him daily, yet this also suddenly raised an affection of



great necessity of attending to the general health of those who are obliged to undergo

the mouth; this seemed to have removed the eruption completely, together with the nodes: but within a month a few partial pustules were perceived on both legs; after these had continued some time, and his health was seemingly established, an internal mercurial (the *solut. of sublimate in decoct. sars.*) was given him: he had not taken three grains of the sublimate in this way, and in the smallest doses, before he was salivated for the third time; the eruption went, but in two or three months the disease sprouted out in a new form, and shewed itself by a thickening of the muscles, followed by deep sloughy ulcerations on the outside of the calf of one leg. Frictions were now had recourse to,  $\mathfrak{z}$  ss. *Ung. M. fort.* was rubbed below the ulceration every other night. In a short time, that is, within three weeks, this also produced salivation, which to all appearance had cured the disease; but the ulceration returned, was larger and more painful than ever, and spread at a great rate; by the use of the carrot poultice, by rest, opium, and Plummer's alterative pill, the sore was got into so small a compass that he could walk out. In this state he was sent into the country, and directed to take moderate exercise, under the diet described, in the open air: when his health was thoroughly recruited, he again had recourse to the *Solut. subl. and decoct. sars.* rubbing in  $\mathfrak{z}$  ss. *Ung. Mer. fort. alternis noctibus,*



undergo severe mercurial courses is sufficiently evident. The fault of the constitution should be, if possible, corrected before the exhibition of mercury, and most carefully counteracted during the progress of the course by proper remedies. The case I have given points out a most material curative indication, namely, an action on the solids and fluids resulting from the retention of a due, but indeterminate quantity of mercury, which action should be not only sufficiently strong, but equable over every part of the system, and exerted for a sufficient length of time : I say indeterminate,

the quantity of the solution was gradually increased from one 16th of a grain to one 8th of a grain in twenty-four hours : notwithstanding the care he took to introduce the medicine in such manner as to prevent a premature affection of the mouth, and was daily exposed to good respirable air, yet it salivated him again after he had taken it about a month, and with more violence than it had ever done before. It came on suddenly, and he spit three pints a day till the twenty-second day ; after which it gradually went off, and he had the satisfaction to find his sufferings at an end, and that he had at last obtained a cure,



nate, because the quantity must vary in different persons, and can only be regulated by the habit of the patient, by the effects raised in the system, and by its operation on the symptoms of the disease. Therefore whenever a salivation comes on, especially if it has arisen prematurely, the surgeon should exercise his judgement and determine from a due consideration of all the circumstances before him, whether the affection of the mouth is partial, or complete in all its parts; that is, whether to the local effect of salivation there is also joined a sufficient degree of action in the medicine as a mercurial stimulant. If the course is defective in this particular, and the salivation is too violent to admit of the further use of mercury with safety, he must have recourse to it immediately on the very first subsidence of the flux: but if the affection of the mouth, though considerable, is not so violent as to forbid its application, and he perceives that the disease is not likely to be cured, especially



especially if neither the fætor, languor, or putrefaction bears a due proportion to the effect on the salivary glands, he may wish to avail himself of this critical period. If that should be his intention, and he is desirous of introducing a greater quantity of mercury, he must proceed with caution: for, as on the one hand this is the point of time at which he may, if he pleases, almost instantly produce the most powerful anti-venereal effects of which this medicine is capable; so on the other, by urging it too far, and thereby stimulating or weakening too much, he may do an irreparable injury. And a very small dose at such time will operate with wonderful increase of power, both as a spur to the symptoms peculiar to salivation and as an antivenereal. But when that time is over the effects of the medicine as a strengthening stimulant begin to appear, and then nature will generally bear and indeed requires its introduction in larger quantity. The sooner we have recourse



to the stimulant after the subsidence of the salivation, the more powerfully will it act. And in this place I must mention a circumstance of no small consequence. When the several doses have once raised salivation, &c. we certainly lose the most favourable opportunity of serving the patient if we suffer the affection of the mouth and its concomitants to flag too soon, by discontinuing the medicine, or by letting in good respirable air, for the invigorating power of the remedy will immediately take the lead and keep possession of the habit. The stimulant should therefore be repeated, if possible, again and again without intermission, till the effects on the system correspond with the quantity of mercury received, and till both have manifested a proper action on the disease by the total and perfect removal of all its symptoms ; or, in other words, the accumulated force of the several connected doses should continue constantly increasing till the disease is perfectly

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gone. And experience will warrant the assertion, that in an obstinate symptom it is much safer to persist in the use of the remedy some time longer. When this is properly attended to, the cure will be easy and effected in a short space of time; when it is not, slow and difficult. For it is by no means the same thing whether the medicine is introduced by a full and uninterrupted accumulation till it has had the proper effects on the system and on the disease; or whether, from a too great dread of the present affection of the mouth, we desist too soon from the stimulant, and endeavour to increase the accumulation after that affection has subsided. Whoever has inadvertently let slip the critical time of expediting the cure when the salivation was considerable, must be sensible of the difficulty of reproducing the proper putrefactive changes, which in some cases can never be done, till a second more considerable affection of the mouth than the first, has been brought on.

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The apparent removal of one or more venereal symptoms is not always to be trusted to. For there is most frequently another and more extensive intention to be answered; namely, the total destruction of a poison most intimately blended and as it were assimilated with the constitution. And experience fully evinces that this necessary object cannot be obtained but by the perfect and unimpaired production of these essential internal and external changes, which are inseparable, from a powerful operation of the medicine on the system; which should be properly raised and kept up, as occasion requires, by a due quantity of the stimulant. Venereal eruptions, nodes, venereal farcocias have been perfectly removed without curing the disease. Even in the common primary symptom, a chancre, it is frequently not only necessary to heal it, perfectly, by the general action of the medicine alone, but to continue the stimulant some time longer. We should not only remove a venereal

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eruption,



eruption, but if the medicine fails to produce a fair and full effect on the system, the disease will be very readily translated from the skin to the membranous surfaces, particularly to the periosteum; and pains in the limbs, or perhaps nodes, will follow. Though I mean to treat this part of my subject more in detail hereafter, yet there is a circumstance with regard to the treatment of a venereal eruption which has not been I believe attended to. When there is a great number of eruptions spread over the whole body, it is no uncommon thing for the first doses of the medicine to remove the greater part of them, two or three only remaining. These will sometimes continue, during the whole progress of the cure, and if the medicine is not persisted in till after it has produced in the centre of each pock a palish dent or pit, the patient will not be secure. Nay, in one case, indeed it was in an alterative course, the disposition to venereal metastasis remained,



mained, though this rule was most carefully followed.

It sometimes happens, that though the intention is to salivate under the predisposing circumstance of confinement, yet we are foiled in our attempts to raise this effect from the medicine. If a mercurial purging should come on it may compensate, in a great measure, for the deficiency: in this case a warm opiate, properly given, and repeated *pro re natâ*, will not only procure immediate ease, but, by quieting the irritation in the bowels, and at the same time promoting costiveness, will bid fair to bring on an affection of the mouth.

But when the medicine has been used for many days, in the largest doses, and under the most rigid confinement, and yet has neither of the two effects just mentioned, it may be asked, How is a surgeon to proceed, or to know that it is acting properly on the disease? He may know it is producing the proper effect, by comparing the quantity employed



ployed with the external and internal changes which have taken place; by attending to the state of the intestines, skin, kidneys, and circulation in general. If neither salivation nor purging have arisen, there is most frequently a considerable degree of costiveness; there is often an increased secretion from the skin or from the kidneys, and constantly a considerable degree of inflammatory diathesis. The urine, from a pale straw colour, becomes of a dark brown, sometimes with a dirty kind of sediment; and before the decisive change is produced on the disease, the emaciation, languor, and weakness are not only evident, but to those who are unacquainted with the operation of mercury very alarming. These circumstances mark the operation of the medicine sufficiently, and point out that it is, according to the idea of Sydenham, a specific mediately only, that is by the alterations it occasions in the system. But it most frequently happens that, with the above effects,



effects, some degree of fætor, with a metallic taste in the mouth, and some slight tendency toward salivation are perceivable. The quantity of mercury required to effect a cure, when this inaptitude to salivation prevails, is much greater than in any other kind of constitution whatever.—I must caution the young practitioner not to mistake the want of salivation from a slovenly use of mercury, for this natural inaptitude to this evacuation, which is peculiar to some constitutions, and which varies in the same person at different periods and under different circumstances.

Between the habit just described and that in which salivation is apt to take place prematurely, there are many intermediate gradations. The middle state between the two extremes is the most favourable for the action of mercury under confinement; for in this case to the fair symptoms of putrefaction may be joined a proper accumulation, and retention of a large portion of the medicine:



cine : and as there is here no great affinity between the salivary glands and the remedy, there is no great danger of a sudden, or too violent flux ; so that the affection of the mouth may, with the utmost ease, be kept within moderate bounds ; whilst the mercurial particles are fully and equably diffused over the whole system. In this case, that general revolution, which has been already described, and which is sometimes too suddenly raised by a small quantity of mercury, must be brought about gradually : and there should be gained by time, that is, by the continued and progressive action of the stimulant, what is wanting in force. Instead of attempting to remove the symptoms of the disease in a few days, which is sometimes done when the mouth is speedily affected, we should be contented with a similar operation from the medicine procured, in a longer space of time, by the united action of many doses ; and though it may be a fortnight, three weeks, or perhaps



perhaps longer before the proper affection of the mouth, with its concomitants, appear; yet when the decisive change begins to take place, the cure proceeds with great celerity, and is permanently effected in a few days.

In the treatment of a venereal patient the first thing to be enquired into, after ascertaining the nature of the symptoms, is his idiosyncrasy. But how are we to obtain this necessary kind of information? Is Sydenham's rule, that all those who are with difficulty purged by a common cathartic, are also hard to salivate, to be depended on? I fear there will ever be much uncertainty in forming a right judgement on this matter. For I have frequently known the same constitution at one period without any propensity to salivation, resisting the most powerful doses of the medicine under the closest confinement, at another salivated by the smallest doses when no confinement had been enjoined. But whenever there are spongy, diseased gums,

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with bad teeth, especially if due care is not taken to keep them clean, during a mercurial course, I believe there will be this kind of propensity; and, as has been already observed, whenever a scorbutic tendency in the habit prevails, there also this inconvenience is too often apt to interrupt the progress of a cure. But an healthy state of the teeth and gums by no means constantly implies an exemption from this propensity; for many persons are easily salivated who have them in the most perfect order. The internal and external use of stimulants, when the system has been previously loaded with mercury, has frequently, even a considerable time after the discontinuance of the medicine, caused an unexpected salivation; thus drinking, hunting, and dancing have sometimes been followed by this effect. And at any time during a mercurial course, whatever increases the general stimulating power of mercury, or irritates and heats the parts about the throat, especially in the habits just described,



described, will frequently be followed by like consequences.

With regard to the use of purgatives, and the warm bath, for averting an impending flux of the mouth; they are principally applicable to but one description of men, namely, those who are very easily salivated. When the other extreme predominates, they will frequently diminish the antivenereal power of the remedy, by retarding that which should be promoted; I mean the putrefactive process of the medicine, which, in this constitution, is never effected without some difficulty. But, in regard to the operation of purgatives, there is an exception to this rule: for it sometimes happens that they, after a long and ineffectual endeavour at raising salivation, by clearing the intestinal canal, render the absorption of internal mercurials more certain, and, at the same time, by quickening the pulse, give a spur to the medicine whilst it is acting on every part of the body. But to return to the first of



these two cases: it has been already observed that costiveness generally precedes and accompanies salivation, and its consequences:—one cause of which is the partial determination of the circulation and nervous power to the parts within the mouth. It is well known, that when the medicine takes to the mucous glands of the intestines, it often causes dysenteric symptoms, without any considerable affection of the mouth; and when the bowels are only moderately open, in a mercurial course, the mouth is frequently secured from a too violent inflammation. These are facts depending on constitution and the spontaneous action of the medicine; and are met with when a cure has been attempted by frictions simply, without the aid of any internal mercurial. These circumstances point out, that, as in the constitution which has an antipathy to salivation, bringing on an artificial costiveness, by giving a narcotic every night, will, next to absolute confinement and a quick  
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and large repetition of the several doses, promote the antivenereal effects of the remedy: so in its opposite, when it becomes necessary to prevent salivation, purgatives will certainly be useful in lessening the partial plethora of the vessels about the mouth, by drawing off the circulation and nervous power to the intestines; and the warm bath will concur in producing a similar effect, by making a revulsion to the skin. But these means should be employed early; for they both quicken the general circulation, and, if the mercury has already got full possession of the mouth, they will sometimes increase the affection. But when properly timed they are very serviceable in enabling the surgeon to introduce more of the medicine than could be done without their assistance. To these may occasionally be added a gradual and guarded exposure to good respirable air; under which circumstances, the course should be continued by very moderate doses, till the constitution gets habituated to



to the stimulus of the medicine, and when a large accumulation has been made, it may be afterwards pushed with greater boldness.

It sometimes happens that an attempt to raise sufficient salivation not only fails for a considerable time, but the disease continues with unabated obstinacy though a fair introduction of a large quantity of the medicine has been effected, and it does not in the smallest degree remit, notwithstanding the emaciation and weakness of the patient. It is difficult to say what would be the best method of treating such a case; whether from the natural repugnance there seems to be to salivation, it would not be safer, by varying the preparation of mercury when that originally used seems to have lost its power, to keep up a proper stimulus and endeavour to obtain in six weeks or more, what in an ordinary course under confinement may be gained in three or four weeks; I say it is difficult to settle whether such a method of proceeding



proceeding may not be preferable to employing force to raise salivation when nature strongly opposes the endeavour; the strength or weakness of the patient and other circumstances, should, I apprehend, determine the surgeon in his choice. In one case, during the space of a month, more than six ounces of *Ung. Merc. fort.* had been fairly rubbed in, besides the internal use of a very active internal preparation for a venereal sore throat. The patient was greatly emaciated, somewhat weakened, and his mouth slightly sore, with some degree of salivation; yet the ulceration was not altered: in this situation he used a cinabar fumigation; from the first application of the vapor no remarkable change took place, but the second increased very considerably the affection of the mouth, brought on great and distressing prostration of strength, sickness, purging, and a dysenteric kind of uneasiness in his bowels. The diseased appearance immediately gave way, and after quieting the  
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the general commotion by a warm opiate, the effects of the remedy, as well as the symptom of the disease, subsided, and very soon went off. In this case, as in many others that might be adduced, probably the internal putrefactive changes so necessary toward a cure were so absolutely dependent on salivation, that they could not be separated.

It is not within the compass of the present publication to enter into the action of mercury when it ceases to be a medicine and becomes a poison. But it may be necessary to mention some of the ill consequences which may arise from a too plentiful introduction of it, or from too violent salivation; and to shew that though it may be freely and with safety used for the cure of the *Lues Venerea*, and other diseases, yet there is a limit in the progress of its effects, beyond which it should never be urged. When the medicine or its effects have been carried too far, that weakness which ever attends a mercurial course in a greater  
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or less degree, is not what it ought to be, transient, but permanent; and the principle of invigoration, which always follows a well-conducted cure under confinement, is lost. This accident most frequently happens in a very irritable or inflammable habit; when a too violent or long continued salivation has preceded; when the putrefaction has been great; and when the attempts to raise a spitting have been strenuously persisted in, though nature strongly resisted the effort. When a man complains of great and distressing prostration of strength, has slight nausea, a pulse much quicker and harder than natural, universal agitation of mind and body, with want of sleep, especially if there is also some degree of giddiness with an obtuse pain in the head, the surgeon has done enough, and let the symptoms of salivation be ever so trifling he cannot with safety, under these circumstances, stimulate farther; he must either desist entirely from the use of the medicine, or if he still imagines that the

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disease



disease is not perfectly cured, must wait a little for the subsidence of the symptoms before he proceeds with the remedy.

When the medicine has been so urged as to produce a permanent degree of weakness; to a very considerable degree of general irritability is often joined a partial one; thus if sloughs have formed behind the posterior *dentes molares*, they will sometimes put on a kind of phagedenic appearance, and spread toward the uvula. If there has been a venereal ulceration on either of the tonsils, which toward the latter part of the mercurial course have had a kindly granulating appearance, when the medicine is pushed beyond the necessary point, it will be suddenly changed to a colour somewhat cineritious, which will be most evident at the circumference of the sore; the uvula and posterior part of the palate will have a similar hue, and sometimes ulcerations truly gangrenous will succeed to that soreness of the mouth, the



degree of which it is indeed hard to define with accuracy, but which nature seems to have marked out for the precise state beyond which she must not be stimulated. If a bubo remains unhealed it will sometimes become phagedenic when the medicine has been employed too freely, or used at a time when the constitution was too weak to bear its natural operation. The sore becomes exquisitely painful and highly irritable; it spreads from corner to corner at a prodigious rate, undermines the skin, eats into the surrounding parts irregularly so as to produce an ill-looking ulceration with ragged, callous, fiery edges. This is sometimes the mere effect of mercury, but sometimes to this cause may be added another, namely, a latent venereal taint, roused up, as it were, but not eradicated by the stimulating power of the medicine.

When, notwithstanding the fair use of mercury under confinement, and after it has raised a considerable affection of



the mouth with the usual internal changes, &c. it happens that the cure is not permanent. It is most probable that the failure has arisen from the quantity of mercury employed having been too small, its action too weak, and not kept up for a sufficient length of time; or from some other circumstance, which though essential has not been properly attended to in the course of the treatment. To give one instance out of many that might be given of such a failure; a person at the time he received chancrous infection had a pox in his habit, which had been for years suppressed but not perfectly cured. From the last and more recent infection he had an ulcer on the inside of the prepuce, which from irritation and neglect soon occasioned a phymosis; in this situation he applied for relief; being unable to give himself rest he used mercury in the alterative way for about a fortnight: finding no considerable amendment he submitted to confinement, having rubbed in for about ten or twelve



twelve days, a considerable affection of the mouth took place, which for some time forbad the further introduction of the medicine. During this interval it was observed, that a pustule on one of his cheeks, which he had had for some time before his confinement, but which from having nothing striking in its aspect had not been regarded, suddenly went, the hardened crust came off, and left a true venereal pit behind. The salivation though it seemed to have cured this symptom had not cured his chancre; the phymosis was not perfectly gone, and the ulceration though in a healing state was not well. At the time when the subsidence of the flux, and other circumstances, plainly demanded the further introduction of the medicine, he was obliged to go into the country on urgent business, and did not return for a fortnight, and though he continued the use of mercury during the whole of that time, yet when he came to town he was much worse than he had ever been; the



the pustule on his cheek had returned, was increased considerably in size, and was now a deep ulceration, and the phymosis and chancre were in as bad a state. Under these circumstances he was confined a second time, mercury was again introduced in a variety of forms, without interruption, for five weeks complete, and his mouth kept tender for at least half that time; the sore on the face yielded, but with much more difficulty than before; the phymosis and ulceration on the prepuce continued. The medicine was at last urged so frequently and so forcibly, that it would have been unsafe to have pushed it farther; in consequence of this the ulcer on the prepuce, though not perfectly well, was nearer being healed than it had ever been, and the phymosis so far gone that the glans could with some difficulty be denuded. As soon as his general state would admit of it, he was directed to employ a cinnabar fumigation to the glans and prepuce, which expedited



expedited the healing: and by the absorption of the vapor from the fumigation, which he used every other day, with the assistance of the *solut. sub. cum decoct. sars.* continued for a month more, he got perfectly well.

Some part of the difficulty attending this case ought certainly to be attributed to the unfortunate discontinuance of his first course, under confinement; but from the quantity of mercury he had then used, and from its effects on the system, I am of opinion, that if this had not been a mixed case, I mean, a new infection engrafted on an old one, the course, imperfect as it was, would have cured him; or at least have rendered the second treatment effectual without the necessity of a subsequent alterative course. For five years before the receipt of the infection for which he was under my care, he had been under another surgeon, and with the utmost difficulty cured of a venereal sore throat. From the foregoing history it is plain, that  
though



though salivation, from some unforeseen accident or other, may sometimes fail of curing, yet that it will so far break down or enervate the disease as to render a perfect cure easily attainable by the aid of an alterative course; and that there are symptoms which will yield to the action of both, that will not give way to either singly.

A married lady, who had been infected for many years, was salivated fairly for the disease; when she had desisted from the use of mercury, and was supposed to be cured, she felt considerable pain on one shin; from the very plentiful salivation she had been in, the surgeon who had had the care of her, concluded that she was cured of the disease, and that the present symptom would be taken off by laying a caustic on the part and fairly dividing the periosteum; the operation was done; but she did not find much relief from it. In a short time what seemed to be a partial affection became a general one; she had nocturnal pains universally,



universally, and a large node suddenly made its appearance on the *os frontis*. I put her immediately not only into a course of the solution, but ordered her, after a week's use of this medicine, to rub in below the node on the leg  $\text{ʒss}$ . *Ung. Merc. fort. alternis diebus*, and to take from a pint to a quart of the *decoct. sarsap.* a day.

The mercurials were so managed as not to affect her mouth till the close of the course, and she was confined to her chamber after the first week. When she had followed this method for a month her pains diminished, and the node on her forehead disappeared; a trifling uneasiness on the affected tibia only remaining; by a perseverance in this plan for three weeks more, her pains left her entirely, and so far as respected the disease she was cured certainly. Toward the latter part of the course I pushed the mercurials rather freely till her mouth became moderately sore; when that had subsided she was suffered to go out; in

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about



about a fortnight from which time a small exfoliation was thrown off from the tibia and the sore immediately healed.

To what are we to attribute the cure in this case? Probably to the salivation which in the first instance broke down the disease; to the raising a more gradual, more perfect, and larger accumulation in the system in the second course than had been before effected; and lastly, to the sarsaparilla.

Whether this medicine has actually any specific power in the venereal disease, or whether it has only a property of acting in such a manner on the system as to assist the natural operation of mercury, I will not say; but certain it is, that so early as the middle of the sixteenth century \* this root was employed in

\* *Salsa est regina in hoc, quia discutit tophos quodam quasi miraculo, lignum guaiaci etiam digerit, sed non ita, nec tam facile. Pag. 816. Aphrodisiac. Gabriel. Fallop. de Morbo Gallico. Cap. 115.*



in the *Lues Venerea*, and for this particular symptom, a node. Perhaps both this medicine and guaiacum may have some degree of specific power in the more advanced stages of the disease, when the periosteum or bones are affected. The author just quoted, has, after describing two kinds of gummata, one of which we now call a node, with great sagacity remarked, that they arose *post inunctionem hydrargyri, qui non sanarunt ægros*; and I apprehend they are owing to the repulsion of the pustules from the surface of the skin to that of the periosteum, by the too partial operation of the medicine on the disease; and not to its deleterious effects on the constitution.

Whether, when there is a recent venereal eruption, there is always this consent between the two surfaces? Whether the consent is most frequently met with in poxes of many years standing, from a new and fresh received infection supervening to an old and half-extin-



guished disease? or whether, when an eruption is followed by the consequences I have mentioned in this case, the two symptoms do not exist for a considerable length of time in the habit, as a part or appendage to the suppressed disease, is difficult to say. But thus much is certainly true, that, in an instance I shall hereafter more particularly mention, a venereal eruption was thrown out by that kind of general inflammation which always attends the formation of a considerable abscess, and in another a node arose in a similar manner during the progress of a fever, and in both cases at the distance of seven years from the first infections.

Having given the most usual forms in which a mercurial course under confinement generally appears in daily practice, when employed for the cure of the most obstinate symptoms of the *Lues Venerea*. I have only to add a few observations on its intrinsic merit as a method of treatment. I must apprise the  
the



the reader, however, that I have all along placed it only in a general view, as a means of relief for the very worst stages of the disease, nor do I now mean to apply it to any one particular symptom; that will be the business of a future work. But thus much it may be proper to say in this place; that in the method under confinement any quantity of mercury may be introduced into the general circulation, excepting those persons only who salivate very readily, and even in that idiosyncrasy a small quantity may be so managed as effectually to do the business of a much larger, and with the most perfect quietude of mind and body. We can with the utmost ease and certainty, and without the smallest check from irregularities, the action of cold or other circumstances, proportion the quantity to the effects on the system, and both to the disease. We can cure by this method in the shortest space of time possible, and by a proper attention to the habit of the patient the surgeon may  
generally



generally and at pleasure make its effects slight or violent; he can therefore adapt it to every symptom. Thus a recent chancre he may often cure in a fortnight or three weeks, without affecting the mouth much; and the very worst secondary symptoms within three weeks, a month, or five weeks; as to the consequences of a too rapid or violent salivation, with the precautions I have mentioned they may in general be prevented. In summer as well as winter the patient's chamber should not be too small, and when there is an aptitude to salivation it will be of service, especially during the former of these seasons, if at the commencement of the course he ranges from one room to another, or even lets in fresh air occasionally. But in the opposite constitution the same liberty is not allowable, for it will impede the natural operation of the medicine, nor can it in any case be adopted with safety with the same freedom in winter. A mercurial course under confinement, when the



rules I have laid down are carefully followed, will prove not only the most certain method of treating the disease when it has withstood every other method, but when applied to the most delicate constitutions it possesses fewer inconveniences than any other that the ingenuity of man has yet invented; for it has neither the danger which the prosecution of an alterative course ever will have in so variable a climate as that of Great-Britain, nor is it subject to the same interruptions. In short, the effects raised, are simply those of the medicine, assisted indeed, but not counteracted by any one circumstance under which the course is undertaken: and what weighs more than any thing I have yet said, the weakness it occasions resembles that which follows a short-lived, acute febrile disease, and immediately goes off upon the patient taking to his former habits.



I have said down on the 21st of July 1841  
 I will not say no only to the fact of  
 this meeting of meeting the illness of  
 at his residence every other week  
 but when applied to the most delicate  
 condition it is possible to be in  
 a state that any other than the  
 the of some but not others: for it is  
 neither the danger which the patient  
 nor of an extensive course of  
 have in to be able to do as that of  
 Great Britain, nor is it to be  
 done in the future. In doing the effort  
 called, the people of the world  
 affected indeed, but not yet  
 any of a circumstance which  
 could be understood: and what  
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THE  
ALTERATIVE METHOD.

PART II.

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**I**F an alterative course were to be conducted according to the ideas of some practitioners, it ought to be so managed as to avoid symptoms of salivation entirely; I mean by the term every affection of the mouth whatever; and the precise point to which it should be carried, be to the production of inflammatory diathesis only; that is, to a preternatural fullness, frequency, and strength of the pulse. But if such method of employing mercury be applied to a genuine venereal symptom, and cures; it will be but in very few instances.

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For, to say nothing of the natural tendency in the medicine to lay hold of the mouth, which no man can always prevent; it may with truth be said, that amidst the variety of cases which do daily fall to the lot of every surgeon, to one cure effected in the above way, there are at least ten, in which a very palpable and considerable affection of the mouth must be raised; not only purposely, as an indispensable requisite toward a cure, but unavoidably. It being impossible, in some habits, to introduce mercury enough to cure without it. And therefore the doctrine, however specious, can be very seldom applied with advantage to practice: And when too implicitly relied on, may do much mischief, by leading the incautious and inexperienced astray after an *Ignis fatuus*, when they should be following a substance, and depending upon the more solid effects of the medicine.

The leading principles, already laid down, when speaking of salivation, are  
*mutatis*



*mutatis mutandis* applicable to the present method. The great discriminating circumstances are exercise and exposure to the open air; under a regimen somewhat less stimulating and nutritious than in the ordinary habits of living. To which may be added, in the idiosyncrasy which is soon affected by mercury, the introduction of the medicine in much smaller doses.—In the opposite temperament, if we mean to raise the proper antivenereal effect, the doses must be frequently as large as when the medicine is used under confinement, and when real salivation is absolutely intended.

I will suppose it entered upon by frictions, as in the preceding method. We are very properly directed to begin with small doses; which are to be increased in strength, and applied at longer or shorter intervals, as circumstances may direct.—If a tendency toward salivation should at any time appear, we are to put an immediate stop to the further use of the medicine, and to



wait till such tendency is removed. After which we are to have recourse to the stimulant again, and with this restriction, to continue its introduction till the disease is cured. We are not to load the system hastily with so large a quantity of mercury as in the foregoing course, but to endeavour, by the use of smaller doses proportioned however to the prevailing idiosyncrasy, to produce a more slow and gradual accumulation : and the number of frictions, be they more or less, should form as it were a continued and well connected chain ; so that, toward the close of the course, the system may be acted upon fairly by the conjunct force of the several doses. Such, in few words, are the general outlines of this method.

The degree of inflammatory diathesis is less to be depended upon for ascertaining the due absorption of the stimulant and its proper action on the disease, than in the method by salivation :  
because



because an irritable or inflammable habit, when stimulated by mercury introduced under the influence of air, exercise, and a nutritious diet, is much more easily heated than when these last circumstances do not prevail; and it is extremely clear that a much less quantity will alter the state of the circulation, by its mere stimulus, than will produce a proper antivenereal change on the fluids. Therefore, no reliance should be placed on this symptom, when it is pure and unmixed; and not that alteration in the system which precedes and attends an affection of the mouth. But it may be considered as an accident, requiring the occasional interposition of evacuations, and an antiphlogistic regimen. And we must endeavour to ascertain the progress we make by other circumstances. If the medicine causes a tenderness, or uncommon taste in the mouth, with disposition to salivation, though the affection be slight, we may be certain that it is as much  
the



the mark of an internal putrefactive process going on, in this method, as in that under confinement: of a process, however, which is kept under by the influence and strengthening power of the three circumstances just mentioned. But, notwithstanding the extensive operation of these causes in this kind of course, such is the power of the medicine, that the usual effects of mercury under confinement are sufficiently evident, to satisfy an enquirer that the internal changes do actually take place: though perhaps not so completely. The costiveness, before the mouth becomes much affected, and the fœtor when it is, the emaciation, extreme languor, sometimes with cold colliquative sweats, or dysenteric kind of purging, &c. are generally, when the course cures a bad symptom, so strongly marked, as to put the matter out of all doubt. There is even a similar attenuation or want of natural cohesion in the blood. The great difference, in the two methods, arises from



the causes above assigned, and whoever considers attentively their influence, will be sensible, that such causes must act as checks to the putrefactive effects of the medicine; and that to these the seemingly smothered state of its operation is more owing, than to the manner in which it is introduced. The predominant circumstance in the former method was weakness; produced by the rapid introduction of full doses, under strict confinement and total inactivity. That of the present is strength, generated by a more cautious management of the medicine, when the constitution is at the same time under the action of air, exercise, and a generous diet. The one shows how the invigorating power of the medicine may be diminished; the other how it may be increased.

An alterative course will always cure, in the idiosyncrasy easily salivated, with more certainty than in the opposite state of the body: and this leads me to speak of the doses by which this method should



be conducted. In the former of these cases they should be small, and so managed that they may gain as it were insensibly on the constitution, without raising a considerable affection of the mouth; and if this is done properly, the system will soon become accustomed to the stimulant; the power of habit prevailing by degrees over the natural tendency to salivation. If, however, the mouth should become suddenly and prematurely affected, it will be proper to desist immediately from the use of the medicine; and, when this symptom is suffered to subside, it may be generally repeated with more boldness than before. Whenever the opposite Idiosyncrasy can be known, the doses should be larger, and repeated with greater freedom: and without this precaution it will be extremely difficult to produce the requisite degree of putrefaction and weakness.

The greater number of doses required to obtain the same antivenereal effect in this, as in the other method,  
weakens



weakens the general operation of the medicine. Therefore, whenever the power of habit shews itself, the dose must be not only increased, but it will be most frequently necessary to introduce it in a new form: if frictions were first employed, an active internal preparation may be added to them; if this should prove insufficient, another should be called, in aid to the means before used; and in this way the proper action may be kept up. If the stimulant be urged too far, perhaps symptoms of salivation may arise; and if they appear at the latter part of the course, when the disease is nearly cured, they will be of considerable service: because they will point out the proper internal changes, after a due retention of a large portion of the medicine. But if they come on too early, the case will be very different; the connexion between the several doses being prematurely broken, the attempt to produce the requisite, but indefinable accumu-

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lation for a time fails ; and in both cases it frequently happens, if the symptom is an obstinate one, that, notwithstanding the use of the medicine for some weeks, and the present affection of the mouth, it will remain unaltered, or perhaps is but just beginning to put on a favourable appearance ; plainly indicating that the internal process is only in its first stage, and that a further more considerable action of the remedy, and greater degree of putrefaction are necessary. How are these to be effected, when the situation of the patient precludes the observance of confinement ? They are in such a case to be brought on, only by the longer continuance of the stimulant. If the present affection of the mouth is so considerable, that more of the medicine cannot be immediately introduced, there must be an intermission for one, two, three, four, or more days, and, if the surgeon is not extremely attentive, the putrefactive process, which was going on when salivation



salivation was impending, will be suddenly stopped, and the invigorating effect of the remedy will soon shew itself, by a fresh flow of spirits, and by the amended health of the patient. So that after this the course must be recommenced, under difficulties very much increased.

But if this should occur in the habit easily salivated, I believe, it will be of no great disservice : for when the symptoms are fairly suffered to go off, the proper accumulation may be afterwards made, without danger of another premature interruption : a second affection of the mouth being most frequently, more difficult to raise than the first. But, if it occurs in the other kind of habit, from cold throwing up a quantity of blood to the head ; by violent exercise ; the unexpected absorption of a large dose of mercury, &c. it will render a future attempt to cure extremely difficult. In this case, the affection of the mouth and general state of the patient must be accurately watched,



and upon the very first appearance of relaxation in the symptoms of putrefaction, the medicine must be again resorted to, for it is inconceivable to those who have not attended to the fact, how very soon symptoms of strength will appear, and counteract our future endeavours, upon the smallest interruption or diminution of the usual doses: I mean in this particular habit. Both these situations are rather embarrassing to the surgeon, for in both there must be a temporary suspension of the effects of the medicine, by which its operation on the disease must be weakened. However the shorter the interval the better; and, when the mouth is not much affected, it is frequently of singular advantage to continue the use of the remedy in a very small dose, thus, from half a grain to two grains of *Merc. Calc.* may often, notwithstanding the seeming tendency to salivation, be had recourse to, and repeated occasionally, and so powerfully will the circumstances in which the patient



is placed keep under this tendency, that the forenefs of the mouth will frequently diminifh, though the medicine be continued in this manner for fome days, and at length get into fuch a ftate as plainly to point out the neceffity of larger dofes. If I can prevail with my patient, I generally begin with frictions, and feldom ufe a larger quantity, for the firft fortnight or three weeks, than  $\text{ʒss}$ . *Ung. Merc. fort. omni nocte*. If the medicine occasions a purging, the bowels muft be quieted by an opiate; that done, if no confiderable affection of the mouth follows, it may be repeated and continued. If coftivenefs fupervenes we may be certain that it has not only fairly entered the circulation, but that it will not be long before it will fhew fome falutary effect on the difeafe.—If there is no danger of a fore mouth, I now recommend an internal mercurial, and let the bowels be ever fo fo irritable at the commencement of the courfe, they will generally bear one perfectly



perfectly well at this period of the process\*. If the patient objects to the frictions, at the beginning of the course, *Mercur. crud. cum Bals. sulph. ext.* may be substituted; but in a small dose, which may be gradually increased—Whether it purges much, or is, after some days, followed with costiveness, a similar method of treatment may be adopted, as when speaking of frictions; the same may be said of *Calomel Merc. calc. Solut. sublim.* when the course is entered upon with them, and the constitution will bear the irritation of these medicines.

In a very few days, and sometimes immediately, from the commencement of the costiveness, the effects of the medicine on the mouth may in a small degree be perceived; the patient becomes thin, pale, and somewhat weakened, but sometimes the costiveness appears many days before the other symptoms, and sometimes the natural  
state

\* I generally use *Merc. calc.* or *calomel* if they set easy, if not, *Merc. crud. Bals. sulph. ext.*



state of the bowels is not much altered. When, however, the foregoing effects of the medicine are present, great attention, in the further prosecution of the course, will be required to keep the balance even, between the circumstances which dispose to strength or weakness. For as, on the one hand, by urging the remedy too precipitately the surgeon may bring on such an affection of the mouth as may put him under the necessity of confining the patient; so, on the other, by not pushing it far enough, he may suffer its invigorating power to get too great an ascendance over the habit, and thereby lessen the efficacy of the course as an antivenereal. In the method under confinement already considered, we are apt to rely too much on the effect the medicine has simply on the mouth, without regarding sufficiently the quantity employed or its retention in the system. In an alterative course, being pretty sure of the two last circumstances, we trust perhaps too much to them, without considering that



that the internal symptoms of putrefaction of which the affection of the mouth is only the general mark should be not only raised, but kept up, till the disease is perfectly cured. This putrefactive process not only comes on much later, but a cure most frequently requires that it be continued longer, than in the method under confinement. I mean when the intention is to cure a troublesome primary or secondary symptom. If the remedy can be so managed, as not to affect the mouth too soon, and a fair accumulation is at the same time made in the system, within three weeks or a month, there will remain the same space of time for the production of the putrefactive change: for a cure can seldom be performed in this method in less than five, it is often six weeks, or two months. And this variation depends on the obstinacy of the symptom, on the habit of the patient, on the effect of the medicine, and on the prevalence of those circumstances during the course, which dispose



pose to strength ; and which counteract the natural progress of the medicine : and to these may be added, a regular or irregular method of living. Indeed irregularities may occasion its protraction greatly beyond the limits above-mentioned.

The degree of affection in the mouth differs greatly in different persons. Sometimes, after a fair accumulation effected within a month or somewhat more, the tenderness of the gums shall be so trifling as to be scarce perceivable, and that only at the very close of the course ; sometimes there shall be a fair secession of the gums from some of the teeth, even after three weeks, which shall continue till by the repeated attacks of the medicine on the system the disease shall be fairly eradicated ; the tenderness of the mouth during all that time being neither lessened nor materially increased.

The effects on the disease are in this case gradual, they do not begin till the mouth becomes touched, nor till there

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are the other usual symptoms of putrefaction, as prostration of strength, &c. and the cure is seldom completed till a considerable degree of emaciation and weakness has taken place. But it sometimes happens, even in this method, that a similar effort in the system prevails, as in the method under confinement, of forcing open one or more of the secretions usually influenced by mercury: if this should appear at the close of the course, when the system is sufficiently loaded, the effects of the remedy will be as conspicuous, but not quite so rapid or certain as under confinement; but when it has been preceded by some degree of tenderness in the mouth, with prostration of strength, &c. for several days; it is the limit beyond which we should not go. Indeed when these effects have subsided, if the disease still continues, and nothing contra-indicates, the medicine may be again recurred to. For though in salivation the decisive revolution seems sometimes to take place in a few



few hours ; that depends entirely on its violence, and on the perfectness of the external and internal changes. We are not to expect the same consequences in an alterative course. However, even in this, the transition from disease to health is remarkably quick, and is at the end of the process brought about by the operation of the medicine in a few days. Interruptions therefore are less necessary to be guarded against at the commencement, than toward the close of the course. For the business of the first weeks is to cause a due absorption and retention of a sufficient quantity of the medicine ; the intention in the latter weeks should be carefully to watch over and sustain for a proper length of time the anti-venereal effects of the medicine.

The habit which salivates readily, is much more under the controul of the surgeon in this method than in the preceding, and the effects of purgatives and the warm bath for repressing an impending ptyalism are much more to be relied



on. And this is probably owing to the concurring influence of a constant exposure to the external atmosphere.

But the most troublesome case is, when the circumstances under which the course is pursued co-operate with an acquired or natural inaptitude to salivation. The medicine has been introduced, we will suppose, for several weeks; no alteration, save perhaps a slight emaciation, can be perceived in the patient's appearance, nor any in the disease. What is then to be done? If the symptom is a hazardous one and spreading with rapidity, confinement will be the safest and best assistant to the cure. But if he cannot submit to this; if the doses of the medicine have been already increased to the utmost, another preparation may be added to the first, and so on. Or, if little or no tenderness of the gums has yet taken place, a mercurial topic may be applied directly to the mouth and throat, which by giving to the medicine the property it seems more particularly



particularly to want, I mean the disposition to affect the salivary glands, perhaps its proper operation on the system and disease may be produced.

The best medicine I know of for this purpose, is *Mercur. alcaliz.* thrown dry from a paper into the throat, and suddenly washed down with water. But if this and the other means recommended fail, there is no alternative but confinement. As to a cinnabar fumigation to the throat, unless there are spreading ulcerations on this part, it has too powerful an effect on the salivary glands to be trusted to; though this preparation might be applied as a topic, in the case of a spreading chancre on the glans, and by this surface a considerable portion of the medicine may be taken into the circulation.

The inconveniences of the alterative course just described, may be ranged under two heads: the one appertains to it as a method, the defects being interwoven in its very nature, which no modification



dification in the application of the medicine can fully remedy. The other it possesses in some measure in common with the method under confinement. Under the first come all those cases in which this method has generally, and will for ever prove injudicious and ineffectual. It is injudicious to trust to it when a symptom is to be treated which is proceeding with great rapidity; in which much more injury is likely to accrue to the patient, if he waits the issue of the slow effect usually attending an alterative course, than he can possibly receive from a temporary sore mouth.— I have fully shewn that the decisive change in this method never can be produced in a short space of time, unless salivation is absolutely risked, and if this takes place, the course is no longer an alterative one, for the cure must be finished according to the method under confinement. If the anxiety of the patient, or mistaken zeal of the surgeon, prompts the latter to the use of a powerful



erful topic before the proper antivenereal effects from the general application of the remedy have appeared, eight times in ten he will not cure the disease, but only damp the fire for the present, which at some future time will rage in the old or a new form with inconceivable obstinacy: as this, therefore, can be only a temporary expedient, there is no man, I hope, however blinded he may be by prejudice, or the prevalence of fashion, who will not see the propriety, I had almost said the absolute necessity, of confining the patient under the circumstances just described. It is ineffectual, when the power of habit and idiosyncrasy of the patient so far predominate, that no quantity of mercury, however large, can be made to produce the proper putrefactive consequences.

Independent of the accidents to which those who have weak lungs of every temperament are liable from the action of mercury; there is one in which I never saw a mercurial course entered upon, whether



whether under confinement or in the alterative way, but with a great degree of serious anxiety. The case I have in my eye is the true and very delicate sanguineous temperament, in which the complexion is exceedingly fair and florid, the hair light, the eyes blue, the make slender, the neck long and tapering, the shoulders high, and the chest perhaps narrow; in which there is a constitutional propensity to catarrh, to hæmoptoe, and phthisis pulmonalis. Let the two methods which have been very fully, and I hope fairly considered, be applied to this particular constitution; and let any man who is capable of determining from his knowledge in the natural progress of diseases, and in the effects of medicine, tell me, whether in such a constitution an alterative course continued for an obstinate primary or secondary symptom, for one, two, or perhaps three months, during the coldest and most variable seasons in our climate, or even in summer, is not much more likely  
to



from its consequences to be injurious than the other method which does not take up half the time, and in which all exposure to the inclemency of our atmosphere and every kind of inducement to irregularity are wholly avoided: and lastly, in which the quantity of mercury necessary for the cure is not perhaps half so much. And this leads me to observe farther, that in a tedious alterative course, the strong action kept up in the vessels is not of the acute but of the chronic kind, which in every, even, the best possible, temperament, must more or less dispose to hectic. But I am happy to have it in my power to say, that amidst the great variety of cases, in which the alterative method only can be employed, these *infortunia* do not happen often: and, when they do, irregularities on the side of the patient, who will not always submit to a proper regimen, have as great, if not a greater share in doing the mischief than the quantity of mercury received, the length of the course, or

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even



even the exposure to a very changeable atmosphere. For it is very wonderful how easily even delicate constitutions will by habit and a cautious exhibition at the onset, accommodate themselves to the use of this medicine, and seemingly without material inconvenience. Indeed, if it was otherwise, the remedy would be almost literally as bad as the disease.

An alterative course then, conducted with the proper attention, may, with great propriety and general success, be applied to most of the primary, and to many of the secondary symptoms of the *Lues Venerea*. By the first of these terms I mean chancre, chancrous excoriation, and venereal bubo: by the last, a venereal sore throat when a primary symptom has preceded—venereal eruptions—nodes—venereal pains—venereal excrescences, &c. In the idiosyncrasy, too prone to salivation, it may be adopted, perhaps, in preference to the method under confinement: the reasons for  
which



which have been already adduced, and I hope sufficiently explained. It must however be remembered, that this mode of cure is more certain and safe in summer than in winter—in a warm climate than in a cold one, and under a guarded exposure to the very variable atmosphere of this country, than under an irregular course of life without such precaution.

There are certain topical applications, which have been very freely employed as assistants to the power of mercury for expediting a cure, or stopping the hasty progress of particular symptoms. These may be ranked under the general name of *sedatives*. By the term, I mean not those only, which in strictness of etymology come under this head, as the vitriolic and saturnine; but all mercurial and caustic medicaments, whether used for the professed purpose of destroying a diseased surface; or in a more diluted state as promoters of good supuration and granulation in parts ulcerated. For these, though they act



with some degree of irritation, have yet ultimately, with respect to the disease, a similar effect with sedatives of the astringent kind. In this class may be ranked *Caust. Lunar.* whether in its original form, or dissolved in a very large proportion of water. *Merc. Præcip. R.* whether employed alone, or mixed with a cerate of wax and oil, &c. They have a tendency to check, and even cure a venereal sore, though the disease of which this sore is a symptom remains unsubdued in the habit. And this is one cause of imperfect cures in primary symptoms, and will in part account for the great number of those called secondary, which are daily met with. If these applications were employed with proper caution, and never without the fairest and most unequivocal general operation from the specific, this recurrence of the disease would not so frequently happen.

Some of the best writers, both ancient and modern, have cautioned us with a  
great



great deal of earnestness against the use of astringent sedatives, and other repellents, in some of the stages of the *Lues Venerea*; particularly in the three general primary symptoms above mentioned. And being fully sensible of the inconveniences arising from the application of these topics to a common chancre, which they could see; they transferred the same idea to the *gonorrhæa virulenta*, which they seem to have taken for an internal ulceration of the chancrous kind. If their notions of the gonorrhæa had been just, the doctrine they have laid down would have been equally and upon the same principle applicable to both symptoms. Without entering at present minutely into the theory of the gonorrhæa, it may be worth while to shew that though disagreeable consequences do sometimes arise from the application of sedatives to the train of symptoms which go under that general name; yet a moderate attention to practice must convince any one that they are  
not



not those of a chancre or chancrous excoriation, imperfectly or too suddenly healed. For, from the latter we have generally secondary symptoms of the *Lues Venerea*; in the former, so far as my experience has extended, we have not. At least the assertion is strictly true, in much the greater number of gonorrhææ which are daily met with and are called virulent: and if I mistake not, the ill consequences arising from astringent sedatives when applied to them are of another and very different kind; and are owing more to mismanaged inflammation, than suppressed infection.

At one period of a virulent gonorrhæa, not only the whole tract of the urethra, but the glands in immediate connexion with it, and which open into it, are rendered highly irritable, and are in a state of increasing inflammation. The smallest stimulus applied to any one of these parts is very readily extended to, and vibrates throughout the whole. The discharge under these circumstances, though



though thin, and perhaps somewhat stimulating, bears a proportion to the violence of the inflammation; and when the latter is sufficiently moderated, becomes greatly instrumental to the cure; as it is an evacuation immediately from the part inflamed, whose vessels it never fails to unload. If we put the idea of infection out of the question, the same kind of antiphlogistic treatment, nearly, becomes necessary in the inflammatory stage of this disease, as in a true peripneumony, with spitting from the mucous membrane of the lungs, or as in a very violent inflammatory catarrh; and as in these two diseases the sudden subsidence of the increased secretion from the membrane never fails to exasperate the inflammatory symptoms to such a degree, as sometimes to threaten immediate suffocation, or if the patient escapes this danger, to terminate in suppuration, ulceration, or adhesion; so in gonorrhœa, when a check is put to the discharge from the urethra



by an astringent sedative, by a calomel, or any other injection, which diminishes considerably, or totally stops this natural evacuation; the tendency to phlegmonous inflammation in every part of the canal but that which the sedative immediately touches, is greatly increased, and a train of deep seated inflammatory symptoms ensue. A medicine of this kind therefore is in no case safe under the circumstances above-mentioned; it is unsafe even with an antiphlogistic treatment, but it is infinitely more so without it: and if the patient escapes the effects of immediate inflammation high up in the passage—hernia humoralis—affection of Cowper's glands, or the prostate, he most frequently lays the foundation of a future stricture.

But the consequences of a suppressed venereal symptom are very different, and are purely, and without the smallest mixture of inflammation, those of repelled infection; and the never failing consequence



sequence of an improper  
pical treatment of a venereal bubo,  
chancre, or chancrous excoriation will  
be to produce at a future, perhaps no  
very distant period, some one or more  
secondary symptoms; and in these, as  
well as every other case of the *Lues Ve-*  
*nerea*, properly so called, the surgeon  
should depend as much as possible on  
the general effects of the specific for a  
cure.

Some have imagined that the first ru-  
diment of a chancre, that is, the pimple  
before its conversion into an ulcer, was  
curable solely by the application of a  
caustic; others go so far as to imagine  
that an incipient chancre, even when it  
is fairly characterised, may be in like  
manner healed, without any ill conse-  
quences ensuing to the constitution; in  
both cases they go on the principle that  
the complaint is merely local; that the  
poison has not yet entered the circula-  
tion, and therefore that this kind of  
treatment cannot do any injury. With

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regard



regard to the first of these states, no man I believe can distinguish with certainty a venereal pimple from one which is not so. But if he could, the impropriety of all topics is to the full as clear and irrefragable as in the more advanced stage of a chancre. Whether the infecting fluid be received by abrasion, in which case it undergoes a change in the infected part, on which it is deposited, or whether it is immediately absorbed by the lymphatic pores, and conveyed to the inguinal glands, as when a bubo appears as a first symptom; the fact I believe is, that it is taken up and mixed with the circulating lymph, even in *coitu*; if that is the case, the practice I am now considering must fall to the ground, and is on no principle whatever defensible: so that chancre, chancrous excoriation, venereal bubo, though apparently local affections only, are yet symptoms of a general disease which exists in the habit from the moment of infection.

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In a small, very recent, and uninflamed chancre even water, when it has been taken from a spring impregnated either with aluminous or vitriolic particles, I have known so powerfully sedative as to stop the progress and fermentation of the poison on the part, and heal the ulceration: and in this stage of the disease a calomel wash, *Ung. Mercur. Cerat. alb. cum præcip.* R. all medicines of the vitriolic or saturnine kinds, and many others, will have a similar bad effect. In the more advanced state of a chancre the same sort of applications may be hurtful, by causing the sudden cicatrization of the sore, or by making it put on that healthy appearance which should be produced by the most unequivocal general effects of mercury on the constitution, and by those only.

And I am very much mistaken if these kind of applications have not a tendency to drive back into the circulation a considerable portion of true in-

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fecting



fecting matter, which when a chancre is left to the general operation of mercury would find an exit from the part and from the system. Whether it be owing to this circumstance or no, I cannot say, but I think I have several times seen the progress of the more advanced symptoms of the disease brought on before the usual period, by the too sudden healing of a chancre or chancrous excoriation. An astringent sedative generally leaves a mark on the cicatrix of a common chancre it has healed, by which its action may be distinguished from a topic simply mercurial; this mark is a general hardness of the part, or of its circumference, as if the styptic quality of the medicine had puckered up one large or a number of small inflamed lymphatics, and sometimes a turgid vessel may be traced from this induration toward the nearest lymphatic gland.

Mercury, even in its mildest form, when used as a topic, is perhaps no less dangerous than a powerful astringent sedative;



sedative; though this opinion wants some further proof.

It may be said that when a chancre has been healed by the general operation of the remedy simply, when no other topic has been used but mere water, and that only for the purpose of cleanliness, that a small portion of infecting matter may adhere to the external parts sufficient to reproduce the symptom when it has been once healed, or that by its contact with the sebaceous matter of the glans, or mucus of the urethra, it may cause a *gonorrhœa virulenta*. Having often seen a chancre at the orifice of the urethra, simple and without any one attendant symptom of a gonorrhœa which has yielded in due time to mercury only, without the smallest appearance of this last disease supervening, I very much doubt the truth of the above opinion. But, supposing it well founded, it only proves this, that a certain portion of the remedy for the perfect elimination of the disease, should  
be



be applied to the part infected, as well as to the system, and that though a mercurial topic may be called in, as an assistant to the more powerful general effects of the medicine, it is by no means to be trusted to alone, or employed when those effects have not been produced, or when they are imperfect.

If a mercurial sedative acts powerfully it frequently leaves no hardness on the part by which its operation may be traced, it is therefore, when too much trusted to, a more dangerous application than those of the astringent kind. And even when the stimulant is used to the system in general, if its operation is defective in any of its most essential requisites, what is it but a sedative?—It will damp, and that for a very considerable length of time, the disease it would have cured, had the proper internal and external effects been produced.

What has been said in regard to sedatives in general, will, I hope, be sufficient to dissuade all those who have not



attended much to their operation, from using them without a pressing occasion; this occasion does sometimes occur in practice. In an ozena, in spreading ulcerations of the tonsils or uvula, in large spreading chancres with considerable phymosis, and perhaps in a few other cases they may be employed early, to prevent mischief which is impending, and of the most alarming kind; but when they are, the general operation of the specific should be complete in all its parts; and sometimes they may be necessary, not only whilst the decisive putrefactive changes are taking place, but afterward, not simply as means of cure themselves, but as powerful remedies to quiet local irritation, and assist the proper antivenereal effects of the general stimulant. I have only one or two more observations to make on sedatives. When the disease is palliated, but not perfectly cured, by the joint effects of these kind of medicines, and a slovenly general use of mercury; the symptom which supervenes is generally  
much



much more difficult of cure than when the same symptom has occurred from the imperfect operation of the medicine simply, without the interposition of any sedative topic.

These kind of palliatives have another bad tendency besides those already mentioned. When a venereal symptom is suffered to remain under the influence of no other circumstance save the general and proper action of mercury, by carefully watching the progress of that symptom the surgeon will obtain a very good direction as to the quantity of the remedy to be introduced, and as to the effects it must raise in the system. But if he alters the appearance by any topic he is entirely deprived of this very useful source of information, and can, in that case, only depend on a very powerful operation from the medicine for a cure; and this operation may be more violent than the disease would have required if no such topic had ever been used.

T H E   E N D.



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A P P E N D I X.

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A P P E N D I X

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## ERRATA.

- Page 12, line 7, *use* instead of *used*.  
13, line 20, *they* instead of *those*.  
16, last line, after *during* add *what may be called*.  
17, line 11, after *glands* add *and mouth*.  
19, line 2 in the note, for *corroded* use *eroded*;  
and, line 8, after *that day* read *be used*.  
20, line 18, *upon* for *on*, add *and mouth*.  
23, line 3, add *the more important*.  
40, line 14, dele *that*.  
51, line 11, *those* for *these*.  
58, line 2, dele *s*.  
71, line 20, dele *for*.

## APPENDIX.

- Page 9, line 5, read *effect* for *affect*.  
12, line 21, read *glans* for *glands*.  
14, line 4, add *u*.







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## A P P E N D I X.

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**I**N the foregoing tract, the ill consequences of a too sudden, and too violent an affection of the mouth; and the antivenereal power of the method under confinement, when no such affection could possibly be raised, were distinctly noted: and the attention of the student directed, to that middle state, which is equidistant from the two extremes, of violent salivation, and the slightest possible impression. Having so done, the author hoped he could not have been misunderstood; and was greatly surprized to find, that he had been represented, as an advocate for common, or unqualified

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salivation, and of salivation, solely, in the cure of the *Lues Venerea*; more especially, as he had taken some pains to discriminate between the internal, most essential effects of mercury, which denote a putrefaction *sui generis*, from those which are external: and had actually applied this very principle of putrefaction, in contradistinction to salivation, as the only probable one, that could account for the known antivenereal power of the remedy. The enquiry, so far as it went, was by no means designed to raise the reputation of the one method, unfairly, and at the expence of the other: but it was a free and liberal investigation of the merits, and demerits of both, as they are generally practised. It did not tend to an implicit reliance on any one method universally; or in all possible cases. But it shewed clearly, the propriety of adopting the leading principles of the one or the other, as circumstances should direct. In the discussion of a great practical question, he was, it is true,



true, under the necessity of entering into a minute examination of the usual effects of salivation, in all its different states. But the particular application of these effects, to the several degrees of virulence, and stages of the disease, was reserved for a subsequent part of the work. And though a general preference was given, to the middle state above specified; yet that state differs very materially from common salivation. It is neither raised in the same manner; nor has it, any of those painful effects attending it, which render that process greatly dreaded by all ranks of people. To apply the term, therefore, to such a mercurial course is to confound two things, which are, in their own natures, widely different.

If by the term salivation, he has been supposed to mean, the mere salivary secretion, more especially where it is great; he readily allows, that that is not necessary to a cure; because it is, when unconnected with other effects, an evacu-



ation only. But he has all along intended the word in a very different sense; and employed it, to express a method of cure under confinement, without any reference to the mere salivary discharge; but in which, the mouth is most frequently more, or less affected, not simply with an increased secretion of saliva, but generally;—with tenderness; slight, superficial excoriation; temporary secession of the gums from the teeth; and a greater, or less degree of fœtor of the breath. These external effects are described to be nearly synchronous with others, he has called internal. And he supposes the production of the latter, to be in every case truly venereal, absolutely necessary to a cure. He believes, that no instance of failure can be adduced, in which they have been *perfect*; and they may be so, not only without any degree of salivation, but almost without any perceivable affection of the mouth: the one set of effects is always necessary; the other, only when the putrefactive changes cannot be produced,



duced, without the correspondent external type.

When the affection of the mouth has, by accident, arisen to any degree of violence, and has manifested a very quick and extraordinary degree of antivenereal power, as in the first history given, page 19, to deny its efficacy would be, to be wholly insensible to a self-evident truth.

Theorists may say what they please to the contrary, but there certainly is a superior degree of power annexed to the remedy, when the whole of the putrefactive process takes place with this train of consequences ; a power, which, no modification in the effects, short of salivation, can *constantly* produce. But the application of this fact, to the symptoms of the disease is another question ; which I can only consider at present, in a cursory manner. When a practitioner attempts to cure secondary symptoms, without producing a sore mouth, he will sometimes find, even under the advantage



vantage of confinement, after a trial of some weeks; that his patient is far from well: in such a situation, it will be a comfort to himself, and no small benefit to his employer, to know, that by increasing the doses of the medicine, so as fairly to raise this affection, (though by no means such a one, as came on by accident in the above case, or such as is generally understood by the term salivation,) that the cure will *certainly* follow. Every man conversant in the disease must be sensible, that such a kind of salivation is sometimes unavoidable; and they who are not, should have the candour to be silent, till time and experience shew them, whether the proposition is true, or false.

To explain more fully the author's ideas of the method of cure under confinement; for salivation, in the common acceptation of the word, he cannot allow it to be. All, he contends for, is the propriety of producing the impor-



tant putrefactive changes so often mentioned, with a moderate short lived tenderness of the gums, and parts within the mouth, with fœtor, and slight secretion of saliva. A chain of effects, which, in his opinion, should be neither raised hastily, nor by too small a quantity of mercury, but progressively ; after several days have been spent, in forming a sufficient accumulation ; which effects are not to take place as in salivation, at the commencement, but at the *close* of the course. When the quantity introduced has raised the usual changes in the system, and these have been followed by the removal of every symptom of the disease, then the medicine may be discontinued, and its effects suffered to subside ; in general, without the necessity of employing it for a longer time. But if the changes should not be perfect, nor the symptoms cured, the state of the mouth will be favourable to the further use of the remedy, and the quantity in circulation may be immediately increased, without



without the smallest loss of time, till it has reached the precise point.

Laying aside other considerations that might be offered ; such a method of cure is, generally, much less exceptionable than an alterative course ; because the practitioner has the remedy wholly within his power, under the most favourable circumstances, for a cure ; because in this way, a much larger quantity of it can be safely introduced within the same given time ; and also, because its natural operation seems to be more perfect. It is preferable to hasty or ordinary salivation ; because the quantity of mercury taken in, and retained, is not limited ; because the necessary accumulation may be completed, without interruption ; and because the pain inseparable from the usual method of salivating, is, in a great measure, obviated. It has advantages, even over that method of treatment, in which salivation is intended, but in which, little  
or



or no perceivable affection of the mouth can be produced ; because it will cure in much less time, than such method ; because it requires a much smaller quantity of mercury to affect a cure ; and because it is, from that very circumstance, probably less injurious to the constitution.

The above treatment will cure many secondary, as well as primary symptoms. The alterative method, described page 81, will do the same ; though by no means in so short a time, nor with the same certainty, or safety. I sincerely wish I could say, from experience, that they were always equal to the disease. But the truth ought not to be concealed. The uninformed should know, that there are some symptoms, which no alterative course hitherto made public, will ever cure, so as not to have a relapse in future. Nor will even the above method under confinement succeed, in some few cases ; unless the quantity of mercury employed be considerable, and the effects

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carried



carried to the fair point of salivation. When I say that, I advert, particularly, to the kind of habit, in which the requisite putrefactive process cannot be made to take place, without a considerable affection of the mouth ; and to the cure, of the most obstinate stages of the disease.

A more direct, and circumstantial application of the above method, when its effects on the habit, and mouth need only be slight ; of the same method, when more forcibly urged to fair salivation ; and of the alterative ; will be given, after having made some observations on the natural history of the disease : and the truth of the principles now laid down will then be more fully illustrated, with examples taken from actual practice.

They only, who have carefully noted the operation of the specific in the worst secondary symptoms can have a just, or adequate idea of the force, with which  
the



disease, as it were rivets itself, to some constitutions. I have made choice of these, as the fairest tests, for determining the relative degrees of power in the several methods ; and waited patiently for years, to see, whether the cases that I supposed cured, actually remained so. I have scarce met with a single instance of relapse, in any case, in which the method under confinement was, properly conducted. It has cured venereal opthalmiæ, without leaving any defect to vision ; venereal sarcocœles ; eruptions ; diseased bones, of many years standing. It has permanently cured obstinate ulcerations in the face, tongue, and throat ; some of which had existed for years, and, from the little effect produced on them, by alterative, and less rigid mercurial courses, had been thought to be cancerous and incurable. And in all these cases, it was not only necessary to use the specific, in the manner recommended under confinement ; but to carry the effects to that point, at which it will generally produce



the proper internal changes, either with, or without a fair salivation : and it has always cured with the greatest facility, when this alteration in the system has taken place *with* salivation ; with much greater difficulty, when it has not.— Though I believe that the one way may be as certain, as the other. From these facts, I think myself fully vindicated in giving a superior degree of credit to this method. But, what is frequently the only remedy in cases like these, would be much too powerful for the milder and more general venereal symptoms, particularly for those called primary. To cure these, a less quantity of the medicine, and much flighter effects will amply suffice.

Chancres, when neither large, nor spreading, so as to endanger, a phymosis ; considerable destruction to the glands ; or orifice of the urethra, may, in general, be safely treated, by an alterative course, when the patient will conform to rule ;  
and



and there is no danger, from the great variability of our seasons. But were I at liberty to chuse my method, I should frequently prefer the mild one under confinement, above described ; because I am certain, that whether the quantity of mercury used, be great or small, it will operate without any adventitious check ; and with the most perfect safety. With respect to its application to venereal buboes, I am not so sanguine, unless there is the greatest probability of anticipating the formation, and suppuration of the gland. When the state of a bubo is such, as to render it most likely, that suppuration will follow slowly, no time is gained by confinement ; for after the quantity of mercury sufficient to cure the disease has been introduced before suppuration, more will be required, if not as an anti-venereal, at least as an effectual means of promoting the healing of the sore afterward. If no particular circumstance, therefore, contraindicates, I am indifferent, as to confinement, in venereal bubo.



bubo. After suffering the tumour to break of itself; opening it, by a slight puncture only; or rubbing a very small part of the integuments with a piece of good *lapis infernalis*; the rest of the treatment is committed to a soft poultice, which sits perfectly easy, and co-operates with the natural covering, the remaining skin, in defending the sore from irritation, and all external injuries. As to the rest, it depends on the general use of mercury, and a proper attention to habit, &c.

When there is too great a propensity to salivate readily, the alterative course, solely, may be followed; or its leading circumstances may be combined, with those of the method under confinement. Thus, by a cautious introduction of small doses, under a steady and guarded exposure to the external air, a sufficient quantity of the medicine may be retained in circulation, which may afterwards be put into a state, the most favourable to its proper action, by confining the patient :  
and



and in this way, the putrefactive changes will very readily take place. They who have had many opportunities of seeing the disease; and observing how very different its effects are, in different constitutions, must be sensible, that prodigious quantities of the medicine are sometimes introduced into the system, in the alterative way; without the wished-for success, when the power of habit operates with idiosyncrasy, in rendering the irritable parts of the body, in some measure, insensible to the stimulus of the medicine: the best and surest way of increasing the power of the remedy, under these circumstances, is to confine the patient to his house or room; to keep him inactive; to enjoin a plain and nourishing diet, without wine or spirituous liquors; and to increase the former dose, under such treatment.

I have entered somewhat prematurely into the management of particular symptoms; and have been under the necessity



fity of doing so, before it was intended, merely to shew, that I am by no means a strenuous advocate for salivation : and salivation, solely. And though I still maintain, that a course conducted under confinement, and so managed, as to produce a fair and considerable affection of the mouth is sometimes indispensable ; yet from the whole tenor of what has been said, it will be evident, that such a course is only a modification of salivation, and confined in its application to the most rebellious cases of the disease.

I have given it as my opinion, that calomel and the solution of sublimated have, with little variation, the same specific antivenereal effects, as the preparations of the crude mineral ; or, in other words ; that the power of producing the necessary changes in the animal fluids, either with, or without a correspondent affection of the mouth, varies in degree only, in the different preparations ; and  
taken



taken, as a general rule, what has been said, is, I believe, strictly true.

But with respect to the solution, there seems to be, in theory, a further distinction necessary. Compare a grain of corrosive sublimate, (which is a chymical combination of crude mercury and the muriatic acid) with the same quantity of *pil: ex mercur. crud. (bals. sulph. extinct.)* Divide the grain of mercurial salt, and the same quantity of the pill, into eight parts; give an eighth of each, twice a day, for several days; and observe the result. There will be a much more speedy antivenereal effect from the sublimate, than from the preparation of the crude mineral; and yet the latter, when given in a proper dose, will cure with more certainty: it will cure even when frictions have failed. Whence arises this difference? It is, perhaps, owing to the very intimate combination of the mineral with the muriatic acid which renders the sublimate readily miscible, and of easy assimilation, with the several

D fluids



fluids of the body. This property of the saline mercurials, may, perhaps, give them one advantage over the more gross preparations of the crude mineral, namely, that, of checking the progress of a venereal symptom sooner, than they do. If this is really a fact, the mercurial, which takes up the largest proportion of salt in combination, would be, perhaps, preferable, even to the solution. Ward's white drop answers to this description; as it is less acrid, and probably more diffusible in the animal fluids, than sublimate, it may deserve, even as an anti-venereal, more attention than has yet been paid to it. There are also other cases, in which the saline preparations may be singularly applicable. When genuine symptoms of the disease; such as chancres, venereal fore throats, venereal eruptions, &c. have been broken down, but not perfectly eliminated by the use of mercury, the symptoms which remain, or re-appear, sometimes, take a new form. They not only become anomalous; but shew that the lymphatic  
and



and nervous systems are viciated in a manner totally different from what is observable in a pox, uninfluenced by mercury. I shall hereafter mention the case of a patient, who, after a supposed cure, had, for many years, a regular succession of symptoms, which appeared to have the venereal type, but which were too imperfectly marked to put on the natural, and more usual appearance of the disease. And I have sometimes observed, long after the cures have been performed, that a few solitary eruptions, resembling what are called scorbutic, but with something of the venereal hue about them, would break out, and give relief to wandering pains. These, are readily cured by such saline mercurials, as pervade with facility, the finer secretory organs. In these cases, I believe, the solution is preferable to calomel, and perhaps Ward's white drop may be still more efficaceous, than either. When the *Lues Venerea* has passed its acmè, that is, has proceeded in its natural course till it has produced an eruption, which has been  
 removed



removed by mercury ; and that mercury has not cured the disease, but only enervated it, and given occasion to the rise of a slight affection of the periosteum of some one, or more bones, then also, the more active saline preparations, by circulating readily through parts; which the more gross preparations can reach, only by contact ; or by producing the most unequivocal general effects on the system, may be highly useful.

If mercury is united with one particular preparation of antimony, a medicine will be formed which will approach somewhat to the idea generally entertained of an alterative antivenereal.—Crude mercury, rubbed down with *bals. sulphur*, we have elsewhere observed, is one of the best methods of making a very safe, and active preparation for internal use. Triture the mineral with *flor. sulph.* and it becomes, as an antivenereal, inert ; but incorporate *calomel* with *sulp. aur. antim.* as in Plummer's pill, and the compound shews more activity than  
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the Æthiops, but considerably less, than the crude mercury extinguished with the balsam of sulphur; nor has it the disposition to salivate, which this last medicine always has. Indeed, if a more active mercurial is given, after a long continued use of Plummer's pills, the mouth will sometimes become affected. But when employed alone, it very seldom, if ever, shews any such disposition; and, therefore, is rather applicable to such cases of the lues as have been already treated with mercury in a more powerful form, than to be depended upon for the actual cure of the disease. Thus, when a bubo, during a mercurial process, instead of healing, becomes what surgeons call phagedenic; a case, in which the habit is generally much too irritable, and the blood impoverished; Plummer's pill will frequently have a very good effect, both when given alone, and when employed with sarsaparilla. And under the same circumstances, the smallest doses of *calomel*, *mercur. calcinat.* and *sublimat*e have succeeded: and probably, in  
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the case now pointed out, they frequently cure, more by correcting the habit, and gradually meliorating the animal fluids, than by their specific action, as antivenereals. It has been supposed that the mere stimulus of mercury, when kept up for a sufficient length of time, would effect a cure in the worst cases, though it produced none of the effects I have described as decisive in the treatment of venereal patients. If this were true, the medicine, whose properties I am now endeavouring to point out, would be inestimable. It will, to a certain degree, mitigate many of the symptoms, which are truly venereal; but I have never yet seen a person cured by it. Very small doses of calomel, *mer. calc.* and *sublimate*, are more to be depended upon. But they are all inadequate to the end proposed; because, when employed *in this manner*, they have too slight a degree of stimulus; without the very necessary property of affecting the mouth. And I have not yet met with any medi-



cine capable of *curing* the disease, that has not had, this property.

The practitioner must, indeed, have very limited ideas, both of the disease, and the remedy, who confines his resources to any one specific method, or preparation of mercury.

The disease comprehends a great variety of symptoms; some of which are easy, others, very difficult of cure. To this variation the known power of the medicine must be properly adapted. It is to the full as absurd to think of curing every species of small-pox, from the most distinct to the most confluent, and malignant kinds, by one, and the same means, as the *Lues Venerea* by any one method of employing mercury. And I believe the more a man sees of the disease, the more he will be convinced of these truths: that extensive views, and a liberal accommodation of the leading circumstances of the two methods described, in the first, and second parts of  
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this work, to the different cases that may occur, will give, that general success in practice; which no over scrupulous adherence to any one method, or medicine, will ever arrive at.

From what has been said respecting the external use of sedatives, the reader will see, that I am no enemy to them when they are employed merely to assist the general operation of mercury, by quieting local irritation. Nor to the application of *caust. lunar. mer. præcip. r.-puls. sabin.* &c. whenever the structure of any part is so far injured, that the usual applications to the system will not reach it; as in some excrescences. But I would advise the utmost caution in the use of the one set of topics, or the other, in cases of simple uninfamed chancre, or chancrous excoriation; more especially, when the general effects of the specific are in any degree, equivocal.