

Supplement to Practical observations on the natural history and cure of lues venerea : containing remarks on the application of the lunar caustic to strictures of the urethra, on the use of sedatives in gonorrhoea, and their dangerous consequences in lues venerea : with a brief enumeration of those effects of mercury which are decisive in the cure of this disease / by John Howard.

Contributors

Howard, John, -1808.
Royal College of Surgeons of England

Publication/Creation

London : Printed for R. Baldwin, 1801.

Persistent URL

<https://wellcomecollection.org/works/bym5cukt>

Provider

Royal College of Surgeons

License and attribution

This material has been provided by This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



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

7

SUPPLEMENT
TO
PRACTICAL OBSERVATIONS
ON THE
NATURAL HISTORY AND CURE
OF
LUES VENEREA.

ALPHABET

TO

PRACTICAL OBSERVATIONS

ON THE

NATURAL HISTORY AND CURE

OF THE

SUPPLEMENT
TO
PRACTICAL OBSERVATIONS
ON THE
NATURAL HISTORY AND CURE
OF
LUES VENEREA;
CONTAINING
REMARKS ON THE APPLICATION
OF THE
LUNAR CAUSTIC TO STRICTURES OF THE URETHRA;
ON THE
USE OF SEDATIVES IN GONORRHÆA,
AND THEIR DANGEROUS CONSEQUENCES
IN LUES VENEREA;

*With a brief Enumeration of those Effects of Mercury
which are decisive in the Cure of this Disease.*

BY JOHN HOWARD,
MEMBER OF THE COURT OF ASSISTANCE OF THE COLLEGE
OF SURGEONS, AND F. S. A.

LONDON:

PRINTED FOR R. BALDWIN, AND LONGMAN AND REES,
PATERNOSTER-ROW; JOHNSON, ST. PAUL'S CHURCH-
YARD; DEBRETT, PICCADILLY; AND CALLOW, NO. 10,
CROWN-COURT, WINDMILL-STREET, SOHO;

By H. Baldwin and Son, New Bridge-street.

1801.

PRACTICAL OBSERVATIONS

ON THE

NATURAL HISTORY AND CURE

OF THE

CONTAINS

REMARKS ON THE APPLICATION

OF THE

TO THE TREATMENT OF THE DISEASE

OF THE

OF THE DISEASE IN GENERAL

AND THE TREATMENT OF THE DISEASE

IN THE VENEREAL

AND A NEW METHOD OF THE TREATMENT OF THE DISEASE
AND THE TREATMENT OF THE DISEASE

BY JOHN HOWARD

OF THE COURT OF ASSISTANTS OF THE COLLEGE

OF PHYSICIANS, &c.

LONDON

1753

Printed by J. Smith, in Pall-mall, near the Theatre-Royal.
And by J. Smith, in Pall-mall, near the Theatre-Royal.
And by J. Smith, in Pall-mall, near the Theatre-Royal.
And by J. Smith, in Pall-mall, near the Theatre-Royal.

SUPPLEMENT.

SINCE the publication of my last volume on Lues Venerea, some very ingenious and useful facts have come out respecting the application of the lunar caustic to strictures. I have great pleasure in saying, that Mr. Home has given to the world much new and important information on the effects of this caustic.

In following up the idea of Mr. Hunter, and in extending it to a variety of strictures, the general circumstances of those strictures, and the detailed effects of the caustic are all highly interesting, and cannot fail of leading to a more successful practice in some obstinate cases than has hitherto prevailed. His narration of facts seems to me as accurate, and the *juvantia* and *lædientia* as truly given, as in any other most esteemed book of Surgery. In common accidents attending the lunar caustic, some blame may attach to the patients themselves, and as to the greater, occurring for the most part in the worst cases, he has with great clearness and equal candour fairly stated the consequences. As to his method being, or not, a more permanent remedy in stricture than the general practice by a bougie, time only can determine.

Of this I am certain, the great difficulty of gaining a passage into the bladder in some cases of stricture, on which almost every thing surgery can do depends, may be greatly lessened by this application.

Whatever objections may be started against Mr. Home's method, the discerning public will know how to appreciate its merit hereafter; and when this becomes more generally understood, the improvement will find its true level. That pain, hæmorrhage, strangury, &c. may have arisen sometimes from the use of the lunar caustic is allowed, and may be accounted for. At these no man can wonder; but my astonishment is, that such have not happened more frequently. That it has been applied, and effected cures, without the smallest danger or similar consequences following, no one will deny; and that a quicker progress may be made in some strictures by cautious and repeated touches of this most safe of all caustics, the lunar, there can be no doubt. If it be said, common bougies in general use will remove every stricture in the urethra; I say, no. From long experience I am certain no bougie hitherto employed will make a lasting impression on some strictures, nor procure by any management a free passage into the bladder. Here it may be said the lunar caustic may come in, in preference to incision, or to forcing a way with violence through a greatly obstructed urethra with a leaden probe, &c. Whatever effect it may have on the greater number of strictures not so circumstanced, in which a safe reliance has been long placed in the action of a common bougie, may be matter of further inquiry.

The four most useful remedies we have, namely, Antimony, Opium, Mercury, and Bark, may do much good or much harm: time and reiterated experiment having developed their good and bad properties, they are now employed with precision, and with the best effects, even in many almost desperate

cases. So will it be probably with the lunar caustic in diseases of the urethra, whenever the effects of its application are more clearly known ; but at the same time, I am no friend to an indiscriminate use of it in cases fairly curable by common bougies. With respect to this caustic, there seem to be certain modifications in its application, and the observance of some well known means of quieting irritation and inflammation, still requisite to render it more safe and more extensively beneficial. Wiseman distinguishes stricture “ as a general consequence of gonorrhæa, although he allows that there may be obstructions in the urethra, naturally :—Caruncles,” he has said “ are a sort of loose flesh arising in the urethra frequently in the time of a gonorrhæa, by reason of the erosion made by the matter ; if the gonorrhæa be well treated, the erosion is cured, and these little grains of flesh are dried up ;* however, their growth is so small, that they are rarely taken notice of till the declining of the gonorrhæa, and then a small weeping and a few rags appearing in the urine give the first suspicion of them. If this matter be not timely dried up, the caruncles increase and a dysury gradually succeeds, and the urine comes forth forked or in a small stream, dribbling, &c.

“ But this happens to some people not till many years after the gonorrhæa ; for they, arising from a dry membranous part, grow slowly, (and do sometimes waste of themselves or are washed off by the urine,) upon which account the trouble of pissing happening sometimes many years after

* See his second vol. page 406.

“ a gonorrhæa, gives occasion to suspect that it arises
 “ from gravel, and as the disease increases, it is
 “ thought the stone ; but by a searching candle a
 “ more certain discovery is made, these caruncles
 “ being to it so many rubs in the way.—If the cure
 “ be neglected, some drops of urine, or in cöitu, the
 “ semen remaining among these caruncles, heat the
 “ part and increasè their growth, and not only render
 “ them callous, but at length the whole duct, and
 “ then it is called a carnosity,” &c.

His means of cure may be seen at large, among which were emollient injections and relaxants. He used bougies of wax from his wax chandler, to whom he gave directions, after taking away the wax from the cotton at the end, to dip them in a melted composition of which red precipitate of mercury made a part. Thus armed, the bougie was, as he called it, medicated. Other surgeons, and he himself, occasionally applied corrosives to destroy, and astringents to dry up caruncles, &c. He was also in the habit of using leaden probes to break the carnosity. But the most extraordinary part of his practice shews, that he had found, after removing or getting through one stricture, he had to overcome another, or more ; and this he attempted not only by the above means, but by a grain of *Caustic* applied through a canula to the stricture itself. He calls the caustic *Lap. Caustic*. But it does not appear whether it was the lunar caustic or not. I suspect it was more corrosive than the lunar, from his remark, that when it had acted sufficiently the canula would pass through the obstruction with ease.

With a mind full of the mistaken notion of

venereal mischief in strictures he recommends antimonials and even salivation. And he seems to have formed his ideas of stricture in men, which he could not see, from excrescences in females which he could see, and which he also destroyed by caustic, but which were probably truly venereal. " Rigor, fever, suppression of urine, and hæmorrhage happened to his patients as to others since, but without proving fatal. The hæmorrhage, when considerable, he stopped by astringents, and the other symptoms he took off by bleeding; and in suppressions; clysters, large in quantity, suddenly thrown up, so as to act with a degree of impetus on the posterior part of the bladder were employed, without opium. Thus he forced the bladder when loaded, to empty itself the natural way, by the application of pressure from a large quantity of fluid in the rectum."

Wiseman's theory of the disease, though rude, and certainly faulty, was yet expressive of something. Modern surgeons doubt the existence of ulceration, excrescences, fungi, and carnosity in obstructions of the urethra, and they have substituted nothing in place of them, but the words contraction or stricture—I am strongly inclined to believe, however, that there are not only ulcerations, but fungi, warts, and from the growing together of the cells of the urethra, through inflammation, carnosity or callosity in stricture. And upon this ground, the action of the lunar caustic may easily be accounted for, and its effects in stricture explained—A stricture considered abstractedly is a plain idea, but stricture connected with the circumstances just mentioned conveys a great deal more, and gives a more just notion of the disease.

The justly celebrated Mr. S. Sharpe came after Wiseman, and has left us some truly excellent observations on strictures and the use of bougies in his *Critical Enquiry*.* This, like every other part of his works is admirable, and cannot be read too often or with too much attention—He says “ caruncles seldom
 “ happen without stricture, callous cicatrices, or pro-
 “ tuberances of the corpus spongiosum urethræ, in
 “ which the caruncles make only a part of the
 “ obstruction, and possibly may not be bigger than
 “ the head of a pin. But those who have examined
 “ the urethra after death, expecting to find them of
 “ considerable bulk, and not meeting with such,
 “ have in all likelihood overlooked these small ap-
 “ pearances (probably diminished also by death) and
 “ concluded there were no such things. That such
 “ small excrescences may occasion violent disorders
 “ in so tender an organ as the urethra, I have had
 “ occasion to see a notable instance of in a virgin ;
 “ where they grew in a small quantity upon the
 “ orifice of the meatus urinarius, and for many
 “ months had produced the most excruciating tor-
 “ ment, which continued till I had totally extirpated
 “ them ;” again he says, “ I have opened urethræ
 “ where the existence of caruncles was evident—he
 “ had also observed a filament near the verumon-
 “ tanum running across the urethra ; in another case
 “ other filaments—and in a third a small excrescence,
 “ not unlike one of the tricuspid valves of the heart.
 “ Even Mr. I. Hunter confessed he had seen, though
 “ rarely, caruncles, and something like warts upon
 “ examining morbid urethræ.

“ Daran’s first cause of stricture, he calls recur-

“ cissement de fibres de l’urethra; then follow callo-
 “ sity, cicatrices or carnosities, caruncles, excrescences,
 “ and ulcers of the urethra, &c. It has been said
 “ lately that Mons. Teytaud has, by actual dissection,
 “ found ulcers of various sizes, with callous edges,
 “ fungus in the urethra, cicatrices of former ulcers,
 “ and contraction, impeding the passage of the
 “ urine.”

Such, therefore, being what may be called the
 theory of the disease from these writers; it makes
 rather for than against the practice of employing
 the lunar caustic. Some observations from the two
 last named authors have been quoted, to shew the
 superior advantages of the bougie over the lunar
 caustic; whereas those very observations tend to
 prove the contrary. And in answer to some remarks
 by a late writer, Mr. Home might say, if carun-
 cles, if callous cicatrices, or protuberances of the
 corpus spongeosum urethræ, if fungi attend on
 that contraction of the canal called stricture—
 if the excrescences are tender and painful, does
 it not follow that the application of the lunar
 caustic may probably remove them?—Does it not
 also account for that irritability of a particular part,
 which is frequently met with in stricture, and does
 not bear the bougie well?—whereas, after the ap-
 plication of the lunar caustic, that irritability is fre-
 quently diminished—Why is it diminished? because
 the caruncle, though small and (as Mr. Sharpe ex-
 presses it) not perhaps larger than a pin’s head, no
 longer exists to keep up irritation. The pressure
 of a bougie may in time wear away such caruncles,
 but the caustic effects its purpose at once; and need
 only a superficial action. That Daran’s, or any other

bougie, may gradually open, and will enlarge a contracted part of the canal, is admitted ; but it is not so easy a matter to destroy with them either callous edges or fungous excrescences, or to produce a new and healthy surface in place of one that, having been long in a state of ulceration, is very irritable. All this may be done by a few touches of the lunar caustic. It has been asked, by what magic does it act in ulceration ? This is the magic by which it acts, and these are some of its medical properties.

How very distant is the probability of removing such filaments running across the urethra as Mr. Sharpe has described, by the application of bougies ? and on the contrary, how much more probable is it, that they may be destroyed by the lunar caustic ? These filaments may have been originally coagulable lymph, thrown out by inflammation, and organized by time ; and this may perhaps be a frequent cause of obstruction. In Mr. Hunter's 4th plate, in which a stone is delineated behind a stricture, it is most likely that the stricture might have been destroyed with this caustic, and the stone set at liberty. And this transverse filament (if I may so call it) was also very probably produced by inflammation, as other adhesions are, between the lungs and pleura, &c. &c.

The name of caustic to a feeling person carries with it a tremendous idea, and some who reprobate its application are equally ignorant both of the nature of the lunar caustic, and of its operation. By some, from a strange want of precision, its effects have been confounded with those of the *most violent caustics*.

From the effects of this caustic, when *externally* employed, much may be gathered of its operation in stricture—It is a compound of silver with the nitrous acid, and the mildest of all chemical caustics, the red precipitate of mercury excepted. It differs totally from the lapis infernalis, quick lime, butyrum antimonii, hydrargyrus muriatus and arsenic. It is infinitely less corrosive than any of them; having a more superficial and less extensive action. If applied to a wart on the hand, it will blacken the surface of that wart, but its effect is so weak, that it does not penetrate so as to occasion pain; and if the wart is to be destroyed, the black crust must be pared off without drawing blood, and the caustic applied repeatedly. By this means I took away a large wart from the fore finger of my right hand. When some days after the removal of a cancerous breast, there arises in the wound a spongy fungus, with a thin, foetid gleeing; I have frequently touched the whole of this large and extended surface with this caustic, and the effect on the next day has been astonishing. Without producing a deep *slough* or eschar, like other caustics, it has simply destroyed the diseased fungus, and at the same time mended the discharge with very little pain. Its operation seems to extend to the surface only, without occasioning loss of substance or the destruction of the more solid, living parts beneath. In ulcers, its effects are very great in removing the old and causing the generation of a new appearance, more healthy, and with a better and less discharge with a disposition of healing: it even softens the callous lips of ulcers. But, to come still nearer towards an explanation of its effects in stricture,—I have more

than once seen a fungus at the orifice of the female urethra, which, though spongy, has caused considerable uneasiness and irritation, which have been removed by a touch or two of the lunar caustic, without injury to the sound parts, or doing any thing more than destroying the fungus, and producing a healthy sore, which has healed immediately : a similar effect it has had on the orifice of the male urethra ; and venereal fungi, if lax and spongy, behind the corona glandis, may be destroyed by this caustic by a single touch. Mr. S. Sharpe was of opinion, that fungous excrescences were some times met with in a stricture ; and in confirmation of that, do we not frequently see externally in old fistulæ in perinæo, fungi arise which keep up irritation and require to be destroyed by this caustic ? and may not the same kind of fungus also take place in the internal parts of the urethra in these fistulæ ? Do we not also find, that a common bougie passed in the most careful manner, will be followed sometimes by a small quantity of blood ? What does this imply, but that in such stricture there probably exists a fungous diseased surface ? The most careless observer cannot apply this caustic to an external ulcer, without perceiving the immense difference of its action from all other caustics (Hydrarg. Nitrat. de Rub. only excepted ;)—they both act superficially, generally without producing a deep slough or eschar of the sound parts—they have both the very singular properties of thickening a stimulating, thin, gleety discharge *in all ulcers*, and of causing the generation of healthy granulations ;—their effects are weak on parts that are sound, but sufficiently strong to destroy diseased fungous substances : and Savin has an effect some-

what similar. Whether a gleet precedes or accompanies stricture, there is generally a discharge from one or more parts of the urethra in this affection; and whether those parts be excoriated, ulcerated, fungous, or not, the remedy seems to be the same; apply the caustic in some form or other and the circumstances of the stricture may probably be changed: the discharge being ameliorated, the part or parts become less irritable, and a common bougie may be kept in the urethra with more ease to the patient than before—Go on cautiously with the same application, and the stricture will probably get more open, and the bougie make a greater progress. In this way may the lunar caustic, after one or two applications only, be assistant, as I conceive, to the operation of a common bougie. The gradual removal of stricture by this gentle treatment is one thing, and the destruction of it by keeping the caustic in so long, or repeating it so quickly as to produce great pain, considerable hæmorrhage, or stranguery, is another. The structure of the corpus spongiosum urethræ is well known: if the mucus (the natural defence against the acrimony of the urine) be excepted, there is but a thin membrane interposed between that and the cells of the urethra naturally. These cells are turgid with blood whenever an erection takes place; and they communicate with those of the glans. Against my inclination, I was once desired to remove a very small wart from the glans with scissors—scarcely a drop of blood followed, but at night, from exercise and the parts having been heated, a violent hæmorrhage came on, which could only be restrained by the ligature. Bleeding, from the destruction of a diseased part, is very different

from hæmorrhage excited by exercise, wine, women, or whatever increases the circulation after the action of the caustic has made a way into the cells of the urethra. How cautious ought Surgeons to be in the application of this caustic—how careful to enjoin rest, and cessation from every thing likely to irritate the surface to which it has been applied, afterwards ! How much attention is necessary, so to use it, as not to risque an hæmorrhage from the cells of the urethra ! The general fact I believe is, that, at the contracted spot, in whatsoever part of the urethra it may be, the membrane is thickened, and the natural cells obliterated, or grown together. Otherwise hæmorrhages must have happened much more frequently from this application, and have been more violent.

I apprehend this caustic does not generally destroy the stricture at once, its action is probably too weak for that ; but it makes its way through it by degrees, relaxing and widening the contracted part by little and little. If it meets with ulceration, caruncles, spongy excrescences, or fungi in its way, these it destroys. How it may operate on what has been called carnosity or callosity, I do not precisely know ; but it is very possible it may tend to widen a diseased passage through a callous or thickened part of the urethra. And if it will do this, though it does not destroy the contracted ring or stricture, it may tend to the relief of many distressed persons, without curing the disease. And thus, in these cases, be a great help to the subsequent effect of a common bougie. In strictures, and indeed in all diseases of the urethra, bladder and kidneys, there are paroxysms of irritation, and states of comparative ease.

During the former, even a bougie should be used with great caution, or wholly omitted, and if necessary, applied only in the latter. This remark is obviously more necessary to be attended to before the application of the caustic, than before the introduction of a bougie. It has been said, that the hæmorrhage which sometimes follows the caustic, tends to take off alarming symptoms; and no doubt it may, because it is an evacuation immediately from the part; but whenever it happens, it is an accident, and not a circumstance necessary to the operation of the remedy, and must be distinguished from that sort of bleeding occasioned at the destruction of an excrescence or fungus, on which the caustic more immediately acts. Strangury and suppression of urine are also circumstances certainly not necessary to its action, and should be most carefully avoided. And they may often be obviated by using the caustic carefully, not doing too much at a time, nor employing it too frequently; like every other stimulant to the urethra, its effects must be watched, and, if necessary, counteracted by the usual means; the patient should be perfectly quiet, he should use no exercise, nor any excitement to irritation for some time after having been touched; nor should he expose himself to cold immediately after the introduction of a common bougie or caustic; nor should either of them be employed in cold weather, without artificial warmth, so that the spasm from cold, and the resistance from an over stiff bougie may be avoided; nor in warm weather when a person is heated with exercise; nor should the surgeon pass too large a bougie forcibly, before he introduces the caustic. Some persons have complained more of this, than of the caustic itself;

and there can be no doubt but the most alarming symptoms have been brought on by the very gentle introduction even of a common unarmed bougie ; so highly irritable sometimes is the urethra ! and this is a truth of which no practitioner should ever lose sight. Fainting, rigor, fever, strangury, great irritation, and suppression of urine have come on, when no violence has been used, from a common bougie, although it has passed with the utmost facility into the bladder, without any impediment to its progress ; but these accidents have happened more frequently in stricture. The state of the parts therefore should be considered previously ; as well as the effects of all applications intended to be made to a diseased urethra. No man of experience can doubt of common bougies sometimes doing much harm, as well as good, in strictures ; and this may tend to lessen our fears, when the above accidents arise from the caustic. It is, I believe, an undoubted fact, that the action of this application diminishes the great irritability of the urethra in some strictures, an irritability which no bougie can so readily remove, and which is a great impediment to the operation of all bougies, and renders them sometimes, not only useless, but hurtful. In this it has an original and distinct effect ; an effect peculiar to itself, and perhaps not attainable by any other means. The theory, whether true or false, above adopted, explains this matter. And though the morbid anatomy of Wiseman, of Mr. S. Sharpe, of Daran, and others, may not perhaps be so correct as that of more modern Surgeons, yet it may lead to the elucidation of a practical difficulty under which we have long laboured. And if caruncles, ulceration, or excrescences

ever take place in stricture, they are probably the causes of that morbid irritability, which the caustic so readily removes. These being removed, a common bougie will act with less pain and more certainty than before: and the stricture becomes more curable, whether the cure be attempted afterwards by the bougie, by the caustic alone, or by both. The destruction of an excrescence or fungus, or the renovation of a healthy surface, in place of a diseased one, must be distinguished from the destruction of a stricture, considered as stricture merely, whether it be of a considerable size or not, by the action of this caustic. For the one is a superficial, and the other implies the formation of a deep slough, from the separation of which, some of the cells of the urethra may be opened, and a solutio continui produced where there was none before, and where there ought to be none; with all those other inconveniences for which the caustic has been blamed. Its action, in my opinion, should be superficial only. If Mr. Home means that he aims at the destruction of the stricture itself, it is very possible the mildest of all chemical caustics may do a great deal of mischief; and I should be led to suspect he did not clearly understand his own method, nor the sanative effects of his own remedy. But I think he is aware, that this caustic ought to act only superficially, and that it is capable of affording great relief, without producing much irritation or considerable destruction of parts.

One argument for its superiority over common bougies is, that the contracted part, or different strictures in the same urethra, cannot be brought by the latter to the common diameter of the canal; and that the caustic effects this purpose more cer-

tainly than the bougie. This may be admitted, if we suppose the caustic produces the destruction of the contracted part ; but that is problematical. And I believe that neither the one nor the other, though they may widen the stricture for a time, can keep the part before contracted as open for a long continuance, as the passage was naturally, whether the cure be attempted by bougie or caustic : a stricture once formed, will ever after be more or less disposed to contract again ; and that disposition will be strongest where the canal is most contracted naturally. Now, a natural contraction may be widened, but should not be destroyed. Destruction, when applied to stricture, (as stricture merely) without reference to ulceration, fungus, excrescences, or a diseased internal surface, would lead ultimately only to more permanent contraction, as in some burns. I conceive that the general action of this caustic is superficial ; and that it is not sufficiently strong to destroy a callous ring in the urethra, if a stricture may be so called.

Whatever the future effect of this practice may be, Mr. Home's observations have thrown more light on diseases of the urethra, and the means of relieving them, than we have been hitherto in possession of. Much praise is therefore due to him. And whether it be in itself a cure, without the aid of other bougies, by the destruction of stricture, or by the removal of diseased surfaces, fungi, or excrescences, time will unfold. And it will show also, whether, in the cure of stricture, we are to look to the lunar caustic alone, or conjoined with the more established practice of using bougies ; or to bougies alone.

It is a fact, as was before hinted, that there are

many strictures in which bougies, whether they be from Daran or any other person, will make no impression ; and a something is still wanting to the mechanical and suppurative action of bougies in general use. That something, which Wiseman and Mr. Samuel Sharpe seem to have wanted, they would have found probably in the lunar caustic ; with the effects of which, they do not appear to have been acquainted. As to the superiority of Daran's bougie over some others from its supposed medication, I have doubts.

Wiseman's bougie with red precipitate, and Mr. Sharpe's with crude mercury, were employed with the intention of producing more suppurative effects—and these may deserve a further trial. But there is nothing in Daran's composition (if the composition lately published be authentic) so suppurative as these. The most stimulating of the two bougies, namely, that in which levigated precipitate entered as an ingredient, in the opinion of Mr. Sharpe, had no better effects than other bougies ; so perfectly enveloped was this caustic in plaister : and of the two, that with crude mercury seems to me the best composition.

Without entering into the question, how far M. Daran's bougie was or was not medicated ; it was certainly well made ; and probably introduced with caution. But the circumstance on which success more immediately depended, was the mode in which it was secured within the urethra, and fairly up to, or within the stricture ; which was by means of a candle-wick attached to its larger extremity and fastened by a particular knot round the glans ; and in this situation it remained firm and almost immove-

able. The pressure of its smallest end or point producing a kind of ulceration, that relaxed the strictured part; so that the bougie after entering the contraction fairly, in time and by slow degrees carried on the work of dilatation—and such has been the operation of every bougie, since the time of Daran, without medication. The composition for bougies varying, there are some which are more or less astringent, though the intention is to cause supuration on a mucous surface; and there are others too stimulating from the quantity of Burgundy pitch. There are others again much less stimulating; but the best are those which do not irritate, which have the requisite form, polish, and strength, without being too stiff upon being slightly warmed with the fingers or fire.

We need not be surprised, if pressure should produce ulceration at the entrance of a stricture, though there be nothing corrosive at the end of a common bougie, more especially as the extraneous body is an unnatural irritant on a very tender mucous membrane. Pressure long continued will render carious and destroy the structure even of bone itself, as we see in some aneurisms—But the parts for the bougie to act on are sometimes too irritable to bear it; and this is a difficulty of no small magnitude in some strictures; and there is also another, viz. that after passing, by great care, a certain way, or dilating to a certain degree, no further progress can be made. In these cases surely either Mr. Home's method, or some modification of it, may be worth the trial; though the cure be conducted ultimately with a common bougie.

It appears there may be more than one stricture

in the same urethra ; and it is also evident that upon the opening and enlargement of the parts contracted, the symptoms generally cease. It may be necessary to ascertain whether there is a free passage from these strictures into the bladder, but the application of bougies should be directed to the strictures principally without suffering them to irritate the neck, or be introduced constantly into the bladder. Our progress even in the membranous part of the urethra with a common bougie should be made with great caution ; but when a way is to be effected beyond it, the cure becomes much more difficult ; and should be attempted (if at all) by the bougie only. The application of the caustic, in my opinion, should be confined principally to strictures in the anterior part of the urethra,—the membranous part is dangerous ground, and I should be very unwilling to apply it near the verumontanum or prostate, for obvious reasons. An indiscreet, improper use of it, however, is not a sufficient argument for its being discarded or reprobated as a dangerous innovation in practice.

In cases of hard callous stricture, on which a common bougie can make only an imperfect impression, I see no objection to its adoption ; much good may arise from its making a progress more speedily and with greater certainty than the bougie ; but that done, the cure may be prosecuted without it. The principal obstructions anteriorly being removed, I should depend on the bougie alone, and look for a sufficient effect to free the farther part of the canal and neck of the bladder from any great embarrassment. I must at the same time confess, that when the caustic is to be applied to that portion

of the urethra, beyond the part where the passage begins to make a turn upwards, the safest method of using it is through a canula: which may be of the elastic kind, made thinner than common, so as to afford a space sufficient for an armed bougie to pass through, and this must be smaller than any of those in general use. For which purpose the cavity of the mould in which the caustic is cast need not be longer than to admit a wire of a tolerable size. In this way may the caustic be applied up to the stricture, and to the stricture only, from the orifice to the bulb, without the possibility of its touching any, the smallest portion, of the sound urethra. When it is considered that this caustic is used to strictures far distant from the orifice, and that obstructions are to be removed as the cure proceeds in an irritable membrane subject to spasm, and liable to impede the progress even of an armed bougie to the desired spot, it is certainly of consequence to apply it only to the parts diseased; because if impeded, some portion of the caustic might attach to the sound lacunæ.

I had been long accustomed, before the introduction of this method by Mr. Home, to cure by far the greater number of strictures without caustic; and I can see no reason for using this caustic, when the strictures can be relieved with certainty in the old way. But it may be adopted under certain modifications, when that method fails. The effects of a well made bougie of materials not irritating and (without the idea of medication) of a due polish and consistency, have been long well understood. They are not in all cases equal to our purpose; it is therefore matter of useful inquiry to ascertain what the caustic will do. Contraction will, as far as I have

been able to inform myself, take place from both methods at uncertain periods ; but in the old method there is an increased secretion from the part or parts obstructed, and also from every other point of the urethra in contact with the bougie. In the other, an opening of the obstruction is obtained, either by the destruction of parts diseased, as fungi, &c. or the destruction of the contracted part itself. The two methods are extremely different, and yet may be made subservient the one to the other. If (as before said) Mr. Home aims at the destruction of the contracted ring, when the circle is complete, or when the disease occupies only a portion of that circle, by the caustic, I can by no means approve of the method ; because it may then occasion in a greater or less degree a loss of substance, which will probably lead to some distressing circumstances, if not ultimately to more permanent contractions. A great deal of the hazard attending it, and of the destruction of parts produced, must depend on the mode of using it : but it is certainly a very weak caustic.

I believe its action, unless it renovates a diseased surface, removes a caruncle, fungus, excrescence, or filament, merely, without destroying the stricture itself, could not produce that relief which it has done, without great inconveniences arising immediately, or in course of time, from its application.

When Mr. Home says, the intention in removing stricture is to bring the contracted part or parts of the canal to the same diameter as the sound urethra, by the caustic, the same thing was attempted by a common bougie, and to a certain degree attained, without destroying the membrane. And though I

consider the caustic as an improvement, yet if his object is to destroy the urethra itself as the contracted part, in the endeavour to bring such part to the size this membrane is naturally, I cannot view his method in a favourable light ; because, there are natural contractions in the urethra, which are most frequently affected with stricture, and these may be relaxed, opened, or enlarged by a bougie ; where is the necessity of removing them by caustic ? For instance, between the bulb and membranous part of the urethra there is a natural contraction, no doubt for very useful purposes : when stricture takes place at this spot, is it not much safer to enlarge it by a bougie, than destroy it by a caustic ? A false route, and superficial ulceration are certainly producible by a common bougie, and the latter may be sometimes unavoidable. But whenever this is produced, it is superficial only, and at the stricture, there is no absolute destruction of the urethra anywhere. Now, if the caustic really acts with considerable power, causing loss of substance of the strictured part, probably it may occasion in some instances the adhesion of the sides of the membrane to each other ; and if it does, it leaves a new difficulty behind. To obviate this, it should be employed with great delicacy, and a common bougie should be introduced so as to prevent such adhesion, as soon after the application of the caustic as possible. This too is an additional reason for enjoining rest and the most perfect state of quietude afterwards. How careful ought surgeons to be, by large dilution, the injection of oil, and the early introduction of a bougie, to prevent the possibility of adhesion after the caustic ?—How easily does the abolition of the

cavity of the tunica vaginalis in hydrocele by the seton take place, by the adhesion of two inflamed or suppurating surfaces? And it would likewise happen from the caustic, if the round form of the canal, the urine, the introduction of a bougie, &c. did not prevent its sides from collapsing into contact. Wiseman injected oil after his caustic ; and every bougie armed with the lunar caustic should be well covered, caustic and all, with oil. Abscesses and fistulæ in perinæo have been cured frequently in the old way by bougies. But in such affections, the lunar caustic has an advantage over this method. It has (it is allowed) a power of healing sores or ulcers of almost every description; and the application of it to the internal part of the urethra, when the urine insinuates itself through a breach in the membrane, may be of the most singular service, healing one or more orifices, not to be done otherwise without much difficulty. Many fistulæ are not curable in the old way, some are not relievable, even with the assistance of the caustic ; but it certainly adds something of consequence to our means of cure. No bougie can do that on an ulceration, whether in the internal or external parts of the urethra, which this caustic can. It cannot destroy an old diseased surface, and cause almost immediately the generation of a new surface less irritable and having the strongest propensity to heal. The caustic acts with respect to this affection upon a principle, which no bougie, unless medicated according to Wiseman, or the late Mr. Sharpe's plan, can ; and even his would probably have a much weaker effect. If the use of the caustic was confined to abscesses and fistulæ in perinæo, without reference to other cases in which stric-

tures prevail, it would be of the utmost importance ; but when the number of strictures are also considered in which the more general method fails, it becomes truly valuable in the art of surgery.

Mr. Home's method appears to me capable of still greater modification. It may be said that there is a difficulty in applying the caustic to distant parts of the urethra, without its hitching as it goes along, and touching some of the sound lacunæ. This may be prevented by passing it through a canula of elastic gum, open at its extremity, and so rounded off as to slip with ease up to the stricture. But even this idea admits of improvement. Take a small bougie, or one of catgut ; cut the point off so as to make its extremity flat and smooth, fitting the bore of the above canula : put the smallest portion possible of melted wax on this flat surface, so that it may adhere superficially ; whilst the wax is soft, dip that surface so coated upon a small quantity of the lunar caustic, previously reduced to a fine and almost impalpable powder, and pass it up to the diseased part or stricture. If a weak solution only of the caustic be required, or one of any degree of strength, a small piece of sponge, well secured to the end of a whalebone stilet, will easily convey it. And in the above way red precipitate also might be applied, either by itself, or mixed with cerate. In like manner, the caustic mixed and enveloped in cerate might be used. Thus, by a gradual process, without aiming at the immediate destruction of the stricture, and probably with little pain or irritation, without the danger of accidents, may this useful caustic be employed. What effect it might have, if finely powdered and mixed with plaister, and applied to the

extremity of a bougie, after Wiseman's method, I do not know. I apprehend however that it would cease to be a caustic, and become a suppurative, like the red precipitate. But, according to the consistency of the plaister and quantity of the corrosive introduced to the composition, so will it approach to the nature of a caustic or that of a suppurative. And in this sense also it may be assistant possibly to the cure of strictures, and the action of a common bougie. And this, as well as the precipitate in plaister, may, I conceive, be employed as medicaments to a bougie; and applied, as well as a solution of the caustic, in water, or vitriolic solutions, to a *gleet*, which seems to be nothing more than a partial concentrated effect of irritation long continued, or of ulceration in some one or more parts of the urethra; and the one class of remedies may cure, by causing the generation of a new healthy surface in place of a diseased one; the other, by its astringency in merely lessening secretion. These hints are thrown out, however, not as facts fully established from practice in diseased urethræ, but as matter of future inquiry.

As a further proof of the limited operation of the lunar caustic, I have lately applied it to my hand, and, after moistening the part touched, have held it there and moved it about, taking up a small portion of the powder as above on the extreme surface of a bougie; and that for some minutes. It produced a mark on the cuticle which turned afterwards almost black, but not the smallest degree of pain, not acting deeper than this insensible external covering.

One other advantage from the mode of application now given, is the certainty of knowing the power of the caustic. It has been sophisticated with copper;

in which case it is, I believe, more corrosive than the true combination of silver in the nitrous acid. The effects detailed were from the caustic prepared at the Hall: how far this may or may not differ from other preparations of it obtained elsewhere, I have not had an opportunity of inquiring.

After much reflection on the subject of the caustic, it has been my endeavour to direct it only to the parts actually diseased, and to modify its application to the great sensibility of some habits, and some strictures in certain diseased states. How far I may, or may not, have succeeded in a well meant endeavour to call the attention of surgeons to a new practice, upon the utility of which much scepticism exists, future experience will shew. I am prejudiced neither for nor against Mr. Home; and impartial, I hope, towards some persons who have opposed his method. Having fixed my attention on science, in that cause I have ventured to submit the result of my experience to the public.*

* From Wiseman's practice of using a grain of caustic, my first attempt was made to convey the lunar caustic by means of an ivory head to an elastic bougie, that head having two cavities; by one of which it was fastened to the bougie, the other screwed in a conical piece of caustic; the extremity of the ivory was rounded, and the point of the cone only came through a small aperture. Not perfectly satisfied with this, I cut off the end of a hollow bougie, and fitted a whalebone stilet to convey a small portion of the powder as mentioned, page 24. Two months after this, upon some conversation with Mr. Cartwright, of Palsgrave-place, I found he had done the same thing, and applied the powder also: but, instead of using a hollow bougie as I had done, he contrived another, which is thinner, smoother, and better; and answers the desired purpose perfectly well. The ingenious inventor of the Metallic Bougie (Mr. Smith) has also contrived a canula for conveying this caustic.

C A S E.

IN the course of practice, I have seen many cases of stricture of an old date in which bougies were of no avail ; but the following was so remarkable in its circumstances, that I must beg leave to subjoin it. I know not how far Mr. Home's method, or a modification of it, might have been attended either with palliation or a more curative effect ; but this I make no hesitation of saying, had I known as much as I know now, I would have recommended this method, or a modification of it, before the last fatal attack, which I conceive to have been primarily on the kidneys. And the history will tend to show the great resources of nature, the great irritability of the urethra under particular circumstances, especially when connected with an affection of the bladder and kidneys, the difficulties attending the common action of a bougie, and the hope that may still remain of relieving a suffering individual in a desperate state, by the use of the caustic. When I reflect on this and some other cases similar to it, the old rule of practice occurs to my mind, " that a doubtful " remedy is better than none." But that remedy, if employed, should have been when the urethra, bladder and kidneys were not beset with a great degree of acute morbid irritability. No man should attempt the operation of lithotomy in what is called a fit of the stone, when the bladder and all parts in connexion with it are highly irritable ; but during an interval of ease : and the same doctrine is applicable not only to the lunar caustic, but to the introduction of a common bougie.

A young Gentleman of 18 years had, in consequence of a gonorrhæa virulenta, an abscess in perinæo, which was healed by internal medicines and external means only, without a bougie ever having been introduced or worn to promote the healing of the sore or remove the probable obstruction. In 1778 he was salivated for secondary venereal symptoms, (eruptions,) and cured. In 1783, in consequence of the old diseased state of the urethra, which had never been treated with a bougie, he was seized with a suppression of urine, lasting seven days and as many nights. It was impossible to pass either bougie or catheter. Bleeding, the warm bath, oil, opium, and tepid water, frequently injected into the rectum, were the principal means of relief. His urine after that length of time forced its way with violence, and he emptied his bladder at once. Though relieved from imminent danger, he continued to neglect the trial of what a bougie might have done towards removing the stricture afterwards, until he was aged 57, (in 1795) when the difficulty of passing his urine became greater, voiding mucus, sometimes a small quantity of blood, and sometimes gravel and small stones. At this period, whenever his avocations in business would allow him to attend to these complaints, he submitted to have the bougie tried. At different times it was introduced with great care, but after getting a short way into the stricture and towards the bladder, pain, heat of urine, a quickened pulse, even shiverings, would come on, attended also with an evident disposition to suppression of urine. With these impediments occurring, the bougie was repeatedly used, and occasionally discontinued to quiet irritation, without making any con-

siderable progress. Although he had sometimes frequent calls to discharge his urine, yet at times (more particularly when in a warm room, and even after drinking a quantity of wine or other fluids,) he would make it with perfect freedom; this latter circumstance seemed to depend on a copious secretion from the kidneys, filling the bladder and forcing a stream of urine from behind, through the obstructed part. Thus, did he rub on for a great number of years, the urine itself keeping the obstruction passable, in the natural course of the canal, and in a direction contrary to our attempts by a bougie. The latter is an artificial, but unnatural way, of keeping a greatly obstructed urethra open; the other is a natural one, and if we could imitate this by large dilution, to increase the secretion from the kidneys, it would be a force applied from behind, propelling the urine by the united action and general consent, both of kidneys and bladder, and thus by the stream dilating the stricture. The mouths of the lacunæ open outward and not inward. This fact explains why the bougie and caustic sometimes hitch in the lacunæ, and why a larger sized bougie will pass when a small one will not, and why a false route may sometimes be made by these as well as other instruments for drawing off the water. And lastly, why patients too often express pain, sensibility, and spasm, by attempts against the natural course of the passage, sometimes injurious to its structure.

So favourable are the lacunæ to the progress of the stream of urine from the bladder forwards, that it is possible some obstinate strictures may be long kept so far open as to suffer the functions of the

several parts to be performed, though in an imperfect state, without any hazardous symptoms coming on, by the mere force of the urine in sufficient quantity from the kidneys only ; and if, by means of an opening made behind a stricture into the urethra, we could pass a bougie in the same direction that the urine passes naturally, over the lacunæ towards the penis and through the stricture, we might possibly relieve in some cases where we now fail. But to return ; general and topical bleeding, relaxants both externally and internally, opiates and laxatives, were at different times used : amongst the latter, manna had frequently a good effect. The bougie he could not bear at the stricture ; and even touching gently the anterior part of the urethra by keeping in, for a short time, a few inches of a bougie, produced too much uneasiness, and had not the effect I have seen in many other cases. Once, when I had with great tenderness and caution passed the smallest bougie some little way into the stricture, he thought his symptoms relieved ; but as I proceeded, although with the greatest gentleness, shiverings and fever followed. This happened so often during the course of my attendance, which was not constant but occasionally only, for years, that I was convinced there must be not only permanent stricture, but disease of the prostate, kidneys, and bladder, probably connected with stone. The prostate I could feel per anum enlarged, hard, and pressing into the rectum, which occasioned a frequent forcing, not only of urine involuntarily, but of fæces. He had moreover a frequent disposition to piles, which never bled, but there passed sometimes from the urethra a kind of bloody gleet, and blood itself in the urine. He had

sometimes pains in his back ; some perhaps muscular, rheumatic, or gouty ; but at times he had a more decided pain in both kidneys, his urine would be frequently quite clear, and yet sometimes contain a quantity of mucus, and some small portion of blood. These circumstances, when compared with the shiverings, fever, &c. produced by a common bougie, convinced me, that the several parts were much too irritable to bear it ; and having met with cases similar to this, failing me in the same way, I wholly desisted. He would, I believe, have submitted to the caustic, had that been urged ; but knowing the state of the prostate gland, reflecting that he could not bear even a common bougie used in the most guarded manner, and believing his stricture was of that kind, that it would have done no good, but probably have hastened his end, it was not attempted. And indeed some instances of suppression of urine arising from the caustic, which he had heard of, had alarmed him so much, that the idea was given up.

He was strongly predisposed to a suppression of urine, but without any absolute suppression taking place for some months before his death. At length, however, when verging towards 60, whether it was from a few small doses of balsam capaivi producing inflammation, that had been recommended, from a gouty attack upon his kidneys, or from both, I cannot say ; but such a total suppression came on with violent pain, &c. in the region of both kidneys as baffled every effort for his relief.

Upon examination after death both kidneys were found greatly diseased, but one much more enlarged than the other ; the prostate very hard, and thoroughly diseased also ; a stricture of considerable ex-

tent, callous and impervious ; a thickened and contracted bladder, and a large quantity of matter in the pelvis and substance of the larger kidney, and ulcerations on the exterior surface of the other. The distension of the bladder in this suppression of urine was neither large nor equable, but more to one side than the other, and that side corresponded to the larger kidney. I suspect that there was but little secretion of urine from either of them.

This was an instance of very great irritability of all the parts, in connexion with stricture, probably occasioned by that general consent which naturally pervades them, but which from disease long kept up was greatly heightened. The abscess in perinæo was at the age of 18 ; the first suppression of urine 25 years after. From that time, the prostate, the bladder and kidneys were getting gradually, partly from age, and partly from other causes (*viz.* gout, or disposition to the gravel and stone) into a morbid state; the stricture all this time remained without any thing having been done towards its removal, from youth upwards. And when at last the bougie was employed, the obstruction was so great, and the general tendency of other parts to irritation so firmly established, that no progress could be made ; to this, I attribute in some measure the failure of the bougie, which, if applied at an early period, might have been attended with more success. It is very remarkable, with such permanent disease about him, that the mere daily secretion and evacuation of his urine should, for so many years have been sufficient by the force of its stream alone to keep the passage open, with but one single suppression of seven days and nights from the date of the abscess in perinæo at 18 to the last

suppression when near 60. It was extremely perplexing to ascertain how far the stricture was the original cause of all the symptoms which followed, or how far it was an idiopathic affection of the kidneys, bladder and prostate connected with stone, and coming on as these affections do come on, where there has never been a stricture, or abscess in perinæo. A case elsewhere given in vol. III. on Lues Venerea, (page 172,) shews that abscess and stricture, may not only exist, but be cured without the latter bringing on disease or affecting them, though one kidney was nearly destroyed before the formation of the abscess in perinæo. In short, the two affections may be perfectly distinct, although the one may influence the other from sympathy in particular cases. In my judgment, in the above case, disease had subsisted for a considerable time, not only in the prostate, but bladder and kidneys, previous to the last suppression. A suppression of urine, lasting only a few days, would neither have caused the diseased prostate nor the enlargement of the kidneys; and the train of symptoms shewed, that these had been long forming; but the matter in the largest kidney was probably the immediate effect of gouty or phlegmonous inflammation, and the morbid state of the two kidneys, I suspect, brought on the suppression. If these organic affections had not taken place, there might have been no suppression; and the urine probably would still have continued the office it had done for many years, of keeping the strictured part of the urethra pervious. But it is also probable, that if he would have submitted to the caustic, or a modification of it, to the anterior part of the stricture only, before his kidneys

became affected, and before the last attack, so as to make a way partially towards the bladder, that his complaint so far as it depended on stricture, might have been relieved, at least for a time. This gentleman was in the habit for many years previous to his death, of taking manna to ʒiſs , whenever he had occasion for a mild purgative, and with a very good effect. I recommended it upon the authority of Sydenham, who took it himself to relieve his kidneys when he made bloody water. First, once a week to the quantity of two ounces and half dissolved in whey, lib. ij with a little lemon juice, between whiles; afterwards twice a week, for some months, by which he ceased to make bloody water, and could bear the jolting of a coach on the stones, even when the horses went a good pace, for many years. In the spring of 1686—he had a return of his complaint. And at this year the history closes. He now took the same remedy again once a week, with laudanum after its operation: then twice a week, for three weeks running, with the opiate also, and afterwards once a week, without it. A history well worthy the attention of every medical man, but particularly of surgeons, when called in to give assistance in complaints of the urethra and bladder; with which affections of the kidneys toward the decline of life are frequently connected; rendering those complaints more hazardous, and the usual means of relief fallacious and uncertain.

Much has been said not only against the lunar caustic in strictures, but against astringents in gonorrhæa. Having in a former work explained my sentiments on the latter, it would be superfluous to enter into the subject here, more especially as I am

about to republish what was before suggested. I need therefore only remark, that from the first notice of gonorrhæa virulenta in history to the present moment, almost all practitioners have seen the propriety of checking the gonorrhæal discharge by astringent sedatives, in the last stage of the disease, such being very important means of assisting the cure. These medicines have been long thus employed as topics, and are in general estimation ; nay, it very frequently happens that a gonorrhæa cannot be cured without them.

Aware of the accidents too frequently attending Gonorrhæa, namely, hernia humoralis, inflammation in perinæo, &c. when they come on without as well as after the use of injections, under the circumstance of irritable habit disposed to inflammation, I pointed out the great advantages of a general, without placing too implicit a reliance on a treatment merely topical. My opinion was and is, that no man can be successful in the cure of this disease, if he does not know how to cure it without injections, nor without understanding the effects of a judicious selection from those general means of cure detailed in the third volume from page 49 to 81. They are worthy the most serious attention, even during the use of injections, for they may be so employed as to make these applications more safe and more effectual. After explaining the theory of the disease as a foundation for the cure, an important fact was mentioned, namely, the coincidence, within a short period, of Gonorrhæa with chancreous infection ; the former taking the lead, the chancre not appearing so evidently, nor perhaps shewing itself until many days afterwards. What are the probable consequen-

ces from such coincidence of diseased effects, after the application of some topics? Why, if a sedative be applied, whether of the astringent or mercurial kind (for in *Lues Venerea* both kinds act sedatively, calomel checking the discharge as readily, and I might add healing a chancre with more certainty than vitriolated zinc, or *saccharum saturni*) it would take off the local symptoms, suppressing or healing the chancre or chancrous excoriation, without curing the disease, of which these are the general primordia; the progress of the *Gonorrhæa* it would check: and the great number of cases merely gonorrhæal, in which the practice of using topics has been adopted, not having been followed by secondary symptoms of lues, shews that they may be employed frequently with impunity as to the consequences of venereal infection. But even this perhaps rests upon a just discrimination of what are or are not virulent gonorrhææ, but by no means with impunity when they stop the gonorrhæal discharge too suddenly during the prevalency of spreading inflammation, or during that period of gonorrhæa in which a disposition to metastasis or translation of inflammation from one part to another prevails. It is this check to the discharge, and taking off inflammation by injections from the anterior part of the urethra, that are the general causes of *hernia humoralis*, inflammation in perinæo, membranous part of the urethra and neck of the bladder. In aid to our general plan, the discharge must be suffered to return when these accidents have arisen; and if this be not done, great mischief must ensue as has been elsewhere shewn. The curative arrangement pointed, not only to the prevention of such disagreeable consequences in limine, but afforded

the proper means of relief when, from indiscretion, they had actually taken place; irritation and inflammation being thus quieted, the discharge before checked, returning, the cure again proceeds in a safe and more natural way. Thus, after considering attentively again and again how constantly a dependance was to be placed in this mode of treatment for the great accidents of the disease, I was led as it were by the hand to adopt a similar practice from the beginning to the termination of the most painful and hazardous symptoms in gonorrhœa, and when these are terminated, no difficulty in the cure remains. And I cannot recommend to the young practitioner too strongly what has been said in the Third Volume respecting the first and second methods of curing gonorrhœa without injection.

Without entering into minutiae, without affixing great or specific effects to this or that injection, I endeavoured to form a plan of cure, shewing the agents by which this disease might be removed without injections. And having so done, I left the more immediate application to professional men only. With respect to injections of several kinds, I explained their good and bad qualities. I did not deny their frequent good effects, nor their efficacy when properly applied. But these applications required in my judgment certain discriminations which were specified, and more attention than the generality of patients can give to them without the superintendence of medical men. I could not but consider injections as edged tools, not to be handled by every one without great caution. And from the whole of what was said on gonorrhœa, I flattered myself, without adding to that spirit of empiricism which has

been much too prevalent, I had shewn the path that leads to truth and science; that those of the profession who were in want of information might be gratified, but as to those who did not belong to it, the work itself shewed it was never intended for them: It was not fabricated with a view to take in the multitude; it was simply an appeal to the profession, more particularly to the younger part of it: and an endeavour, through that profession, to render service to the publick. And if those who are not of the profession should be disappointed in not finding a single remedy, applicable to all cases, all times, and all circumstances of gonorrhœa, those who are in it, will, I hope, find no difficulty in understanding, discriminating, and bringing several remedies to answer an intention, or to bear on any one or more points. I take this to be the great advantage of arrangement, of combination, and system, not only in the cure of this, but all other diseases.

As a necessary preliminary to the cure of Lues Venerea; an outline of it's natural history was given, the apthous, the livid, more irritable chancre, chancrous excoriation, bubo both when a first symptom, and when arising in consequence of chancre, were the marked primordia of the disease. Pains, eruption, affections of the periosteum, nodes, ophthalmiæ, venereal sarcocèle, diseased bones, ozœna, were amongst the unequivocal secondary symptoms, and lastly were given the anomalous symptoms. Those which in a suppressed state had been perverted from a more natural course by the imperfect and irregular action of the specific, without its having cured the disease.—

My intention was to discountenance the too

frequent use of astringents and other topics, in some states of gonorrhæa, in chancrous excoriations, and in every stage of chancre, but with a certain exception to the rapid progress of venereal irritation, under particular circumstances of the two last-named symptoms, in which great destruction of parts was to be expected from the united effects of venereal mischief, with great local irritability. The great difference between sedative astringents, and mercurials acting sedatively, when locally employed having a specific power, without producing hardness on the parts, was clearly defined ; and the necessity of the fullest general action of mercury on the system, under rigid confinement, when to obviate the immediate and very pressing evil abovementioned, such applications were unavoidable, was explained. This was a reference to cases particularly distressing ; and not applicable *generally* either to chancrous excoriation or chancre. For the general rule of practice I endeavoured to inculcate, was, the total abstinence from every application, but soft lint, during the general introduction of mercury to chancre or chancrous excoriation, with a caution, absolutely necessary, as to the use of topics, in virulent gonorrhæa, at an early stage.

Many additional years of practice, so far from altering, have confirmed me in the idea formerly promulgated with respect to topics of all kinds in Lues Venerea. I wish it were in my power to accommodate truth to the sanguine ideas of some men ; but the thing strikes at the root of all science, it is full of danger, and what I cannot by any means sanction.

The evils that do daily arise from the incautious

use of Goulard's extract, in washes, and other topics, is almost inconceivable. Not aware of the great mischief of suppressing the progress of chancrous infection until the disease can be known fairly, both old and young are too often in the habit of using them, without discrimination, having connexion after connexion, even under a course of mercury; which they too frequently imagine will prevent them from receiving the seeds of infection subsequently to what was received before.

As to the many declamations made against salivation and a proper affection of the mouth from mercury in Lues Venerea, with the intention of substituting less active alterative courses, what was written by me many years ago, is, I hope, a sufficient refutation, and, I trust, not written in vain.

I beg leave to add, the late Mr. Pott, whose name has been mentioned, constantly used astringent sedatives in gleans, although he might have condemned them, as has been asserted, in a particular case. And with respect to affecting the mouth in Lues Venerea, he strongly recommended it, both by precept and example, not only in secondary but primary symptoms; and endeavoured to carry that affection to a considerable height. The practice does not therefore rest on my testimony only. All the world followed him for relief in the worst venereal cases, in the last resort; after alterative methods had been tried repeatedly by others, and failed; and I can say, with great truth, that he was very successful. He was no friend to pil. plummeri, solution of sublimate, or other mercurials in the alterative way. To place an implicit confidence in them for a cure is one thing, to call them in, as aids to

other means of cure, is another. I do not mean that an alterative plan, as has been elsewhere fully set forth, ought never to be practised ; but, when put in competition with a proper course of mercury under confinement, it is opposing the strength of an infant to Hercules. And every man, who knows what obstinate primary and secondary symptoms are, must see the distinction:

I owed a great deal to Mr. Pott in every branch of surgery as well as this ; but the effects of salivation I had seen when young. It was no new thing ; and I had formed my creed upon it before I had the pleasure of being intimate with him. The facts, however, which daily occurred in public and private practice during that intimacy, were to me strong confirmation of a *power* which I have never lost sight of, and which I have elsewhere, with great labour, endeavoured to explain and enforce to all mankind, without disguise. And, as the last and most deliberate professional act of my life, I would say to every practitioner, old or young, take care to affect the mouth and salivary glands sufficiently under confinement in every case. It has been explained in a former work, how inconvenient and distressing it may be, to have too early or rapid an affection of the mouth ; yet how strongly will such affection act in stopping the progress of an alarming symptom ? I have asserted, and the assertion is supported by facts beyond all contradiction, that cures have been effected with certainty not only in primary, but in secondary symptoms, by keeping up the salivating effect with a sufficient quantity of mercury within the short period of three weeks, or little more, under confinement ; and in the

worst stages of the disease ; I have had, since writing the preceding work, abundant evidence to prove that cures could not be effected by the raising salivation merely, but by urging mercury, even under this process, for days and weeks. And the fact comes, after much reasoning, much reflection, and a great deal of subsequent practice, to the point I endeavoured to enforce originally ; namely, the great power of salivation.

The rule, *principiis obsta*, is perhaps more applicable to the *Lues Venerea* than any other disease. It may be easy to bring about at an early period, what it may be impossible, without increased difficulty, to accomplish afterwards, in the subsequent stages of the disease. In *Lues Venerea*, properly so called, although there is a progress from primary to secondary symptoms, yet the disease is specifically the same, going through it is true, different stages ; but the remedy skilfully applied, answers to *all* its stages, from chancre, the first symptom, to affections of the periosteum, to the *corona veneris*, *ozæna*, and diseased bones, &c. The surgeon has only to adapt the power of the remedy to the date or inveteracy of the disease. But how different are the indications of cure, in the incipient and subsequent stages of the natural small pox ? In no disease, perhaps, (except the itch) are the indications of cure so simple, so easy, and so uniform, as in *Lues Venerea* ; nor the effects of a remedy so certain, particularly in its first stage, that of chancre. Have the advocates for alterative methods no idea that confinement, and a quick introduction of mercury under it will cure the disease speedily ? Have they no idea that this practice, if more general in recent cases,

would go a great way towards stopping the progress of infection in male and female, by curing it in a short time, during a temporary separation of the sexes, and that when salivation does not follow? Have they no idea that exposure to the great variability of our seasons, both in summer and winter, during the free use of mercury, has been the destruction of thousands?

There are certain situations in which a man may be obliged to defend himself from misrepresentation; and, if he can do it with truth, even egotism may be pardoned. It has been insinuated, that I had my ideas with respect to Lues Venerea and its cure from Mr. Pott. I had, as has been said, much information from that gentleman. My first tract, on the Medical Properties of Mercury; my second, on the Radical Cure of the Hydrocele; and third, containing Practical Observations on the Natural History and Cure of the Venereal Disease, in two volumes, were all written and printed without his knowledge, and without his corrections, though not without his consent: and the 3rd volume was published after his much lamented death. I acquired a knowledge of the disease from practice early in life. And as to the effects of a rigid mercurial course under confinement; the first case that arrested my attention, was that of a gentleman, when I was young in the profession, who had a venereal eruption complicated with a venereal sarcocele. What is too often called salivation, that is, a slight spitting, without the other decisive effects of mercury was kept up for two months under confinement. The eruption disappeared, but the sarcocele remained. The late Mr. Crane, to whom the patient afterwards applied, by an introduction of

mercury with the intention of raising salivation, but without being able to effect it, under confinement, cured him; but with the other decisive effects of mercury, namely costiveness, great languor, emaciation, weakness, mercurial griping with tenesmus and fætor of the breath taking place. From the year 1765 to 1770, being with a surgeon who had a great deal of private practice in Lues Venerea, in London, during my occasional attendance on different lecturers in anatomy, midwifery, chemistry, materia medica, and practice of physic, as preliminary studies to practical surgery; attending also those truly useful lectures on surgery given by Mr. Pott, and the practice of St. Bartholomew's Hospital; I was struck with the important general fact, namely, that all those surgeons who were most conversant and most successful in the cure of Lues Venerea, constantly endeavoured to make the mouth sore. In this way did the gentleman, under whose roof I was, though obliged by the situation of many of his patients to treat them in the alterative way, cure the disease with rapidity and certainty. And I remarked that Mr. Pott, Mr. Crane, and Mr. Young, the then senior surgeons to St. Bartholomew's, even in the contaminated air of salivating wards cured the disease with ease; and that they were, with the other surgeons of the great hospitals of London, the ultimate resource of the unfortunate, escaping from the hands of persons who had taken all their little money under the fallacious idea of curing them by alterative methods. This may be a melancholy, but it is a faithful picture of human misery, as it was: in a situation truly deplorable; in which distress was heightened by the disappoint-

ment of cure, and the opprobrium affixed to this cruel disease. A disease patients are obliged to conceal, not daring to avow it, as all other diseases may be avowed, openly, and without a blush, to relations, friends, and the whole world. And I am afraid the condition of many poor miserable wretches is not much altered for the better by the present prevalency of what are called alterative courses of mercury, and the confidence too often placed in them.

By the terms, alterative and specific, when applied to mercury in the cure of the Lues Venerea, false ideas have been conveyed. An alterative course (as has been explained very fully, when treating on the action of mercury in the cure of this disease) has a manifest effect on the constitution, producing certain changes in it, which are the sine qua non of its antivenereal action. Mercury has been supposed to cure ; if not without affecting the general habit, at least without producing any notable operation. The fact is not so ; for both in the alterative method, and that under confinement, mercury is not a simple specific, as sulphur is for the itch ; by simple, I mean, without its causing very clear and very decisive effects in the general frame. But it is a specific, mediately only, by means of those effects ; and if either they are not produced, nor kept up for a sufficient length of time, or not sufficiently strong, the cure fails in both methods. I need only add, that the soreness of the mouth, which is generally one of the above decisive effects, takes place also in both. In the one, it is kept down, or suppressed, not only by the free use of air, but exercise and other circumstances ; under which the remedy is checked

in its natural operation, is liable to many impediments, and its power, as an antivenereal, weakened. But under confinement, this specific may be made to act with all the power of which this wonderful medicine is capable ;—not only without hazard, but with the fairest prospect of success. And when the advocates for alterative methods dispute the power of this method, it is matter of astonishment that they do not advert to the plain fact ; namely, its obvious superiority, which is proved by the good effects daily attending it, even in the worst and most deplorable cases, when it becomes the only remedy for those who, having recourse to it after the disease has been smothered for years, without being cured, or in more recent cases, without finding relief ; yet by this obtain permanent health at last. The above case was a cure 35 years ago, without considerable affection of the mouth, though he was placed in those circumstances which do generally bring that affection on ; and the man is now living and perfectly well. Instances of a similar kind, every man of experience must have seen repeatedly ; but the most natural operation of mercury, is to raise, together with the decisive effects, also an affection of the mouth. This being the index to the other effects, we should endeavour to produce it. But whether it follows or not, its coming on depends more on the patient's idiosyncrasy than the surgeon's management.

As a principle, the needle is not more true to the pole, than is this peculiar effect of mercury, when connected with the above circumstances, to the cure of the disease. These circumstances may be brought about readily, even by a small quantity of mercury, when the mouth is touched easily, but

with incomparably more difficulty when the habit resists the effect. But, in both cases the disease (as has been formerly shewn) may be cured perfectly; with this difference, that in the one case, the cure takes place with salivation, in a greater or less degree; and in the other, without it; but in both, with that species of putrefaction, *sui generis*, in the blood and juices of the body, which mercury and only mercury, has the power of producing. Great judgment is no doubt necessary to determine the degree and duration of the above decisive effects of the remedy; but the principle is unalterable—and I believe the true reason why alterative and other courses of mercury so often fail to cure, is, that these effects are not sufficiently attended to; or if brought on at all, it is most frequently in a careless and imperfect manner. If I may presume to have deserved any credit for having the boldness many years ago of endeavouring to open the eyes of the profession, and others, to the too common inefficacy of alterative methods of cure, and to the danger too frequently attending them, the same credit will, I hope, attach to me now. For the same specious but delusive doctrines prevail. And if any apology be necessary for having taken the liberty of promulgating wholesome truths, I beg leave to say, there is a duty we owe to our fellow-creatures, and to science, which supersedes all other considerations, and demands our first and last attention.

It is with no small concern that I must advert to practices that may be injurious to the publick. It is of the utmost consequence, that the mercurial ointment used in frictions should be well prepared in the first instance; it is of almost equal conse-

quence, that the frictions be duely performed for half an hour at least, working by a watch. That I call a fair time. The ointment has been prepared very differently by different persons. When I was a young man, there were but few surgeons in London who did not see to the due preparation of this important medicine. There were three ways in which it was extinguished: one was by rubbing the quicksilver with a certain quantity of turpentine, and afterwards adding the hogslard; this was apt to produce heats on the skin, very troublesome to some patients. The other was an extinction made by the bals. sulphur. adding afterwards the lard. This had a double advantage; in the first place, the balsam of sulphur extinguishes the mercury very completely, and the ointment thus made, has not the tendency of the former to heat the skin; and though the balsam be used, it has not the general property of sulphur in checking the activity of mercury as an antivenereal; and the same fact with respect to mercury killed with bals. sulphur. has been shewn to be highly antivenereal, as a mercurial when given internally, although it produces very little irritation on the stomach or bowels. In the form of Balsam, the medicine is no longer Sulphur; it is Sulphur incorporated with oil by means of heat—and this explains why it is active—the name cannot alter the chemical combination. The third method is still more simple: the quicksilver may be killed with hogslard alone, without mutton suet as directed by the College Dispensatory, the addition of a few drops of olive oil, when incorporated with the mercury and lard, after some time, will forward the extinction, and render the compound less viscid, thus, Hydrarg. Crud. Axung.

ā ʒiij. Ol. Olivar—gutt. v. Not contented with these means of extinguishing mercury, some attempts to facilitate the operation by employing a small quantity of sulphur have been made; this I must object to, for sulphur as sulphur has a manifest effect in checking the activity of mercury, as is well known in the Hydrarg. cum Sulphure. And I am afraid amongst the secrets of trade, that prepared antimony has been employed, both to give the ointment weight and blackness, to the manifest detriment of the medicine, and the disappointment of the Surgeon. The quicksilver itself should be as pure as possible from all extraneous matters, and the ointment is too often, from the great labour necessarily attending it, prepared in a very careless and slovenly manner. And when a practitioner depends on frictions alone without the aid of mercurials internally, which many stomachs will not bear, it is an object of the greatest importance that the ointment be faithfully prepared.

Whether it be, that war has extended the ravages of Lues Venerea farther, and made its symptoms more than usually malignant, I do not know; or whether the malignancy may have arisen from the too prevailing use of sedatives, of mercurials, the lunar caustic or red precipitate, when applied locally to chancres, I do not know, or whether any part of the malignity can be attributed to the many attempts to cure and to relieve in venereal cases by the nitric acid; I say, whether it be owing to any of these causes singly, or to a combination of them, I cannot pretend to say; but it appears to me, in many instances more anomalous, and in others more difficult to treat from its inveteracy than it was formerly. War has had we know from the most early records of the disease a

tendency to propagate it far and wide ; that may be at least one cause ; but there may be many other circumstances tending to the same point. And although it would be no doubt a great blessing to mankind, if a safe cure could be discovered without mercury : yet we must not quit the substance for a shadow, nor place a confidence in any supposed remedy not warranted by long experience. Opium, the nitric acid, &c. have all had their supporters and their day, as specifics in Lues Venerea, but the reputation they once had is fading away, the delusion has not lasted long, and in no great length of time will be forgotten. It has been explained fully elsewhere, how very easy it is to remove the symptoms, and to palliate the disease, without curing it perfectly. Very slight effects from mercury in almost any form, and even medicines not mercurial may perhaps suppress or remove the symptoms for a time. Thus the application of a blister will sometimes ease the pain of a node, and the repetition of it may even remove the appearance ; but the absolute cure of the disease, on which not only the cure of the symptom, but the future security of the patient from a relapse depend, is another matter, and requires a combination of other very different effects. We have the experience of three centuries, supported by some of the greatest men in physick and surgery the world has ever produced, bearing testimony to the wonderful properties and salutary effects of mercury in that disease. Why should we not be contented with what we know without aiming at impossibilities ?—Why not endeavour to add to, and improve that knowledge, which we derived originally from our ancestors ?

If I may be allowed to reason from analogy.—How

have the arts of navigation, of war, and of naval tactics been cultivated and brought to the present degree of perfection?—Not by any new, empirical invention, not by dangerous innovation, or more dangerous experiments, but by following up and improving by degrees what was known before; and facts once ascertained are capable of inconceivable extension. It is in this way I presume that the art of Surgery may be improved. If it were possible for any one man, to give as elements, facts that have been long established by various writers, as the foundation of future improvement, much labour, much study, and much precious time might be saved: and if he were to add any authentic documents, in support of these facts, or could bring forward such as are new, but authentic, such a man would deserve well from the public: instead of spending time in idle speculations tending to no permanent good by pursuing thus the series, he would be carrying his art towards a further state of improvement, and bringing it still nearer perfection.

F I N I S.

have the state of navigation of war, and of naval
 armaments, submitted and brought to the present
 state of perfection. — Not by any new, or novel
 invention, but by dangerous innovation, or more
 dangerous experiments, but by following up and im-
 proving the progress which was known before; and
 that which is accomplished, and capable of unobtainable
 extension. It is in this way I presume that the art
 of navigation may be improved. It is more possible for
 one man than for many to discover facts that have
 been long neglected by the art of navigation, and the
 discovery of facts is improvement, which labour, much
 study, and much anxious time might be saved: and
 it is well to add, and in the documents, in sup-

ERRATA.

Page 7, last line but one, for *nee* read *needs*.

... 10, l. 26, dele *de*.

... 22, l. 2, for *as* read *at*.

... 26, l. 2, for *in* read *with*. — In the note, last line but one add *n*.

... 31, l. 10, for *failing* read *foiling*.