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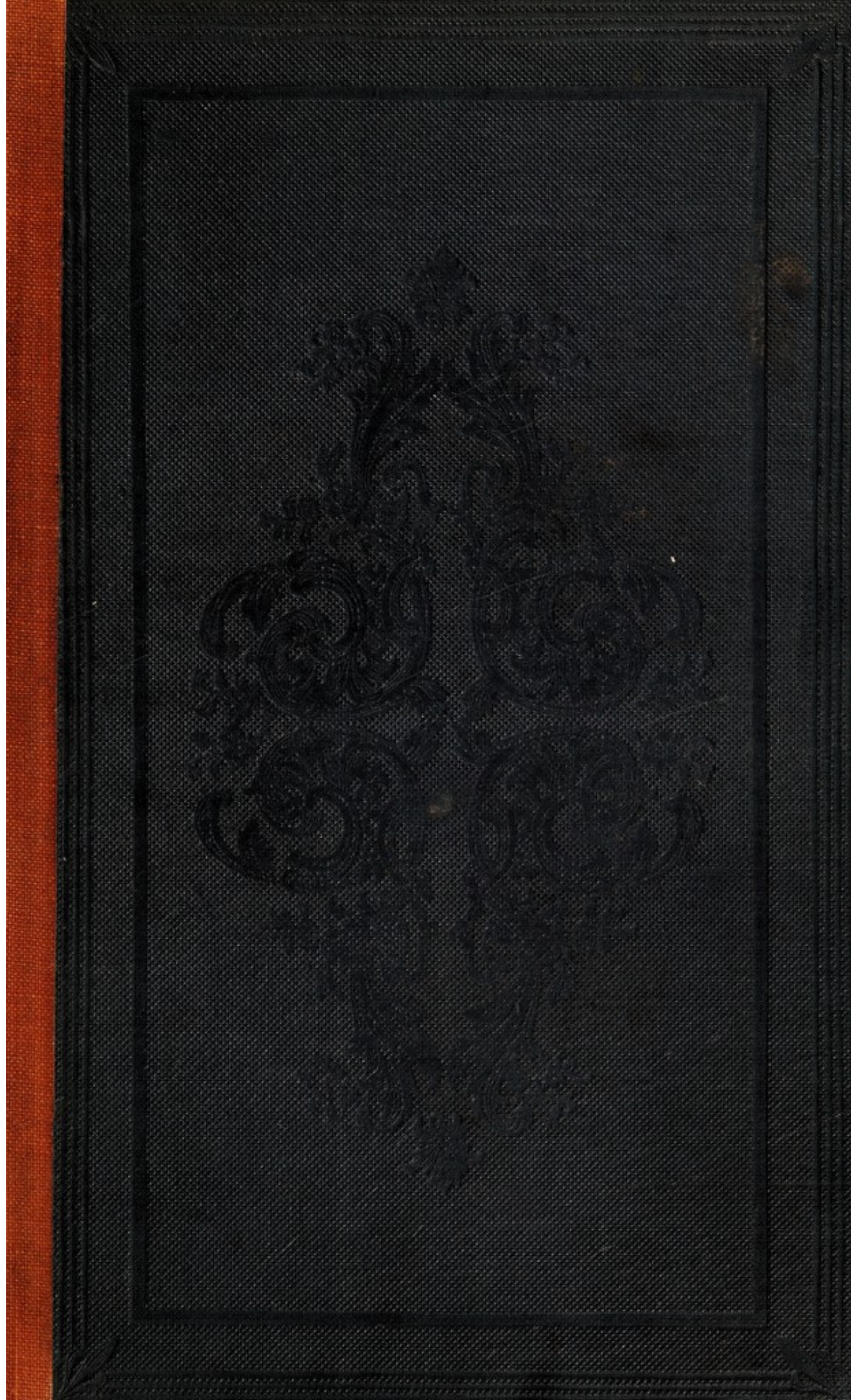
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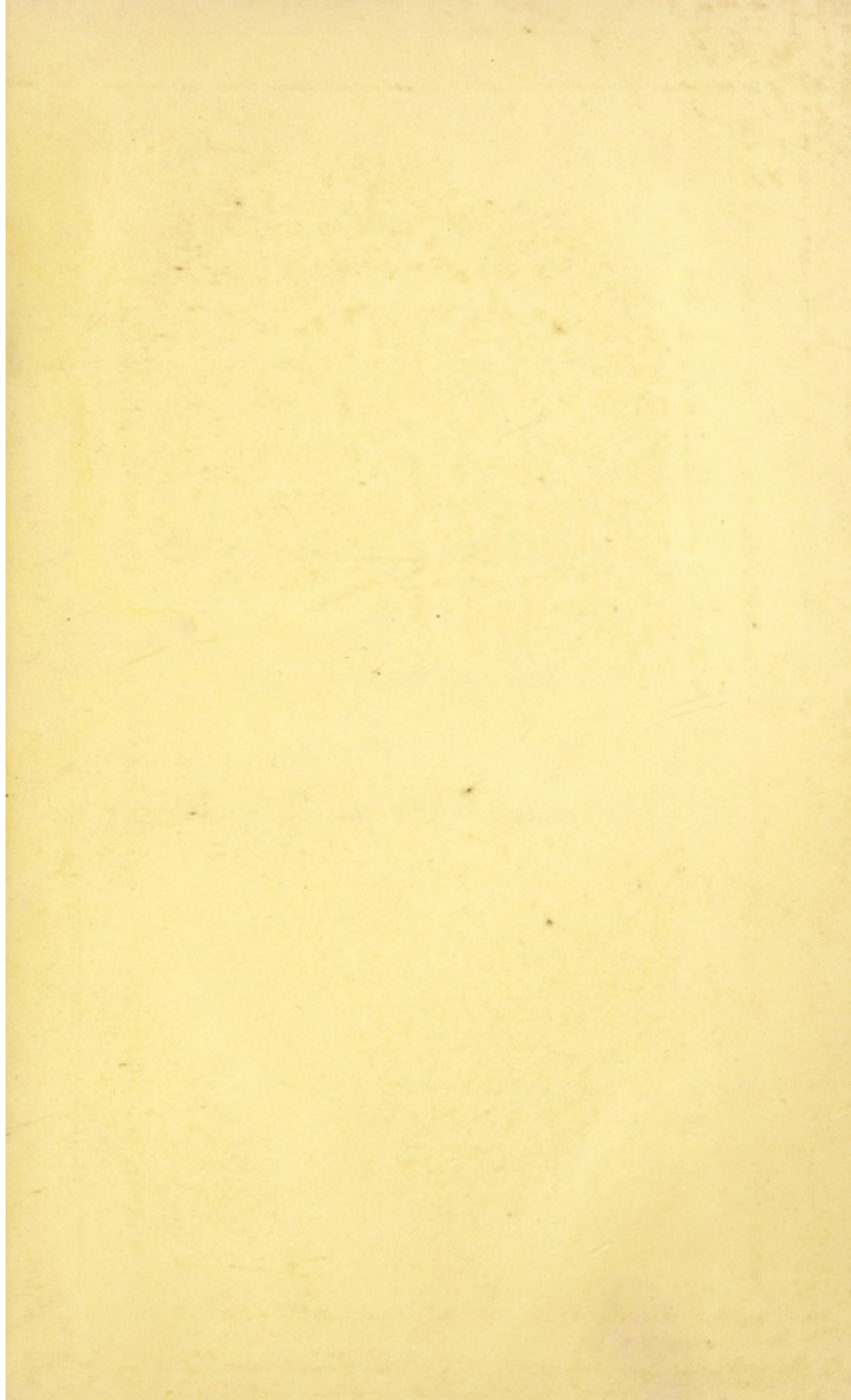
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A
PRACTICAL TREATISE
ON THE
CAUSES, NATURE, AND TREATMENT
OF
STRICTURES OF THE URETHRA.

PRINCIPAL TREATISE

OF THE

STRUCTURE OF THE

A
PRACTICAL TREATISE
ON THE
CAUSES, NATURE, AND TREATMENT
OF
STRICTURES OF THE URETHRA;

WITH
A Review of the Different Modes of Cure,
AND AN ACCOUNT OF THE METHOD OF TREATMENT THE AUTHOR HAS
FOUND MOST EFFICACIOUS.
THE WHOLE ILLUSTRATED BY CASES.

BY
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OF THE URETHRA.

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MDCCCXLI.



WILLIAM HENRY COX,
5, GREAT QUEEN STREET, LINCOLN'S INN FIELDS.

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P R E F A C E.

IT is now many years since I was induced to forego what is technically termed "general practice," and turn my exclusive attention to the treatment of the diseases of the urethra, especially stricture of that canal. One of the principal reasons that influenced me in taking that step, was the conviction I felt, that whether regard was had to the frequency of these maladies, their obstinacy, or their ultimate fatal consequences, or, in a word, their blighting influence on the health and happiness of mankind—they under each and all of these circumstances, might well claim the undivided attention of one man. During this period I have seen nothing to shake that conviction, but, on the contrary, much to confirm it. For I feel well assured, that had it not been for this undivided attention on my part to the treatment of this class of maladies, I should have often failed where I have been eminently successful. I say this with no view of laying claim to the possession of extraordinary talent, for such I feel I do not possess.

Besides, I am well convinced that any man of ordinary abilities, devoting himself, as I have done, for years to the exclusive treatment of diseases of the urethra, and enjoying the numerous opportunities that I have had (from succeeding to an extensive practice in these maladies, that had been established for thirty-five years), of witnessing every form and variety of urethral affections, must have been indeed unobservant, had he not been equally as successful as myself.

The mode of treatment which it is the object of this treatise to recommend is no bantling of my own. It is the offspring of another's talent (the late Mr. Whately), and had arrived under the fostering care of my father at a vigorous maturity, ere I became acquainted with its value and efficacy. I am therefore but an humble follower in the steps of abler men, I cannot even lay claim (as is often done fictitiously by parties following another man's treatment, in order to rob him of the credit or profit), to the possession of some peculiar and improved method of applying the remedy, which the original inventor had not. The means I use are open to all the members of the profession, and the sole advantage I can claim, is that, resulting from my having devoted my exclusive attention to the treatment of the diseases

for which it is used, and the extensive opportunities I have enjoyed of witnessing its effects.

I would further remark, that I have not taken up this mode of treatment on the faith of other men's statements alone. However high an opinion I have entertained of their general talents, or their more especial experience and ability in this mode of treating strictures, I have not pinned my faith to their sleeves, without inquiring on my own part. I confess, that when I first joined my late father, I employed the kali indiscriminately. But feeling that the limited experience I had previously possessed, of judging of the different modes of cure by the simple bougie, by the catheter, or by the application of the lunar caustic (I could never screw my courage up to try cutting instruments), was such as to scarcely afford me sufficient data upon which to ground a determined opinion; I resolved to avail myself of my enlarged opportunities, and try again each of these methods. The results of these trials were such as to confirm my views, as to the superior efficacy and safety of the treatment by the application of the kali, or potassa fusa, for I very frequently failed in my attempts to effect the cure by these other means, whilst I have rarely done so, where I have relied on the kali alone. I would

further state, that I do not mean to hold up the potassa fusa as an *infallible remedy* in all cases of stricture of the urethra—for I believe there is no such thing in nature as an infallible remedy for any known disease. I am the more induced to make this remark, because, in a discussion that was lately held at the Medical Society (I think), on the treatment of strictures with the kali, one or two gentlemen stated that they had found it invariably successful. An assertion, which I confess totally destroyed the gratification I had in the first instance felt, at seeing a mode of treatment, that I had for years adopted, spoken so highly of, for it compelled me to the conclusion, that these gentlemen's experience was not very extensive; whilst I could not but fear, that such unqualified eulogiums on their parts were calculated rather to create doubts, than command confidence in any line of treatment they might recommend.

In conclusion, I have only to entreat the reader's indulgence for the errors, either of omission or commission, that he may detect in the following pages. All I can plead in mitigation of the critic's censure, is, that it has been written at detached intervals of leisure, which should often have been spent in mental relaxation, rather than otherwise.

PRELIMINARY REMARKS.

OF all the diseases incidental to the human frame, there are none more frequent and important than those of the urinary organs. Amidst the various maladies to which those organs are liable I know of none so distressing as that which forms the subject of this treatise, namely, stricture of the urethra. Even under its slightest form it is an unfailing source of anxiety to the patient, whilst it not unfrequently baffles the best intentioned exertions of the surgeon. If long disregarded, or injudiciously treated, it is most appalling in its results, which are not a little increased by the slow and insidious nature of their progress. It is indeed, no uncommon occurrence, for a patient to be labouring under a very considerable stricture, without even so much as suspecting that he has any disease, still less one of so serious a character. At the same time he may well deem himself fortunate, if in first seeking for surgical assistance, he applies to some one well conversant with the

urethra and its diseases. How many years of mental and bodily pain might he not thus escape! Who is there, having frequent opportunities of witnessing this disease, that has not felt, whilst listening to the narration of the patient's excruciating sufferings, the painful conviction as it were, forced upon him, that a course of improper treatment, if not the immediate cause of these sufferings, has tended, and this not in a little, to aggravate them.

To the general reader, or the mere theoretical surgeon, the foregoing may appear a bold assertion. To those persons however, whose experience best qualifies them to give an opinion, I appeal with confidence, whether such be not the case. I have been repeatedly asked, why it is that so little knowledge, not to say ignorance, is evinced by surgeons generally, in this particular and interesting branch of their art? I can only attribute it to the exceedingly vicious system of medical and surgical education prevalent in this country, where instead of the numerous richly endowed hospitals being solely devoted to the advancement of medical and surgical knowledge, they are too often rendered sources of individual aggrandisement and profit, to the injury of the community at large, and the disgrace of science. It needs but a transient visit to our hospitals to convince any unprejudiced observer, that I state nothing which is not borne out by facts.

The disease in question is one which requires the most minute and unceasing attention, as also great perseverance. To those who aspire to the name of operators, it affords but little scope for the display of their skill in the use of the knife, and I fear to this circumstance must be partly attributed the neglect too prevalent at public hospitals towards patients labouring under this malady.* As I before remarked, this is, in my opinion, the result of the vicious system of conducting medical education and the regulations and appointments of public hospitals, where men of doubtful capacity are, by the aid of interest or of money, elected to the responsible and arduous office of surgeons and lecturers. The consequence is, that they too often make this appointment the mere stepping-stone to their own aggrandisement,

* As an illustration, the following is extracted from that pre-eminently useful and popular periodical, the *Lancet* of November 12th, 1836, page 275:—"Whilst on the subject of strictures, we may state (and we have often done it before), that the instruments used for their relief and cure are in a very bad state at St. George's Hospital, and the majority of them are totally worthless. There are crippled catheters, scored sounds, and broken bougies, in abundance. A few days since, when Sir B. Brodie wanted a small white wax bougie, to pass through an old, hard, and gristly stricture, not one could be found; and on that occasion, on looking over the instruments presented to him, the surgeon rightly observed, that 'he wondered that any bad cases of stricture were ever cured in that hospital at all.'"

Flack's case also speaks most eloquently on this head. See the last case.

regardless alike of the claims of the poor committed to their charge, or of the student, who on the faith of their supposed talents, has paid large sums for the *privilege* of walking the hospital and attending lectures. I do not mean to assert that in every case they exhibit the same indifference, far from it, let there only be some "capital operation" to be performed, the *éclat* of which will resound in the medical world, and perchance furnish matter for a sounding paragraph in the papers, and you will see the whole surgical staff enter the operating theatre with their attendant satellites, thrusting aside the no less eager pupils. Let it not be supposed from this, that I wish to underrate the importance attached to what are called the "capital operations," as nothing is farther from my thoughts; at the same time, I must insist that it is no less the duty of public teachers to perform in the presence of their pupils what they are pleased to term the "minor operations," amongst which number they class I believe the introduction of bougies or catheters into the bladder, though on the skill of the surgeon in the use of those *little instruments* may depend results no less serious than those attendant on the more important operations,—*even life itself*.

Need we then feel surprised, that when the should-be instructors evince such neglect, the young and inexperienced pupils, who from the enthusiasm of youth

are naturally more liable to be dazzled and attracted by showy operations, exhibit equal indifference in acquiring a knowledge of performing what *appears to them so easy and simple* a thing as the passing of a bougie. Only when the golden opportunities are lost, and they are embarked in the practice of their profession, do they become sensible of their error.

It is to this deplorable neglect that I attribute in part, much of that want of success which marks the treatment commonly adopted in the cure of stricture; whilst it is the main source of the prejudices, which both the public and the majority of the profession still entertain against the only mode of treatment by which, in my opinion, a radical cure can be effected. I hope in the course of this treatise to convince my readers, that these prejudices have their origin in *loose theories*, and not in *practical facts*; the latter being the only test by which a practical surgeon should form his opinion, as to the efficacy or inefficacy of any system.

My chief motive in making the foregoing remarks is the hope, that should this little treatise fall into the hands of the junior branches of the profession, it might induce them to seek every opportunity of making themselves conversant not only with the anatomy of the urethra, but with this disease in all its varied stages. I earnestly recommend them to lose

no occasion of rendering themselves familiar with the urethra by the introduction of the bougie; at the same time, I advise them under no circumstances ever to attempt the *forcible* introduction of an instrument into the bladder, as in my opinion nothing can ever justify so dangerous a practice. I express myself thus emphatically from having witnessed so often the disastrous effects of this practice. Even when the results have not been serious to the patient, they have never failed to be injurious to the surgeon, by withdrawing from him the confidence of his patient. How often have I heard patients, in speaking of some of the first surgeons of the present day, emphatically exclaim, "He is a butcher, although I told him when I went to him about my stricture, that I could not pass a larger bougie than No. 5, he took a much larger one; and when it stopped at the stricture, he used great force, I felt something give way, and the bougie passed into the bladder, and when it was withdrawn, a great quantity of blood followed. The bleeding continued for a day or two; whilst every time I made water, I felt the most intolerable scalding. I never went to him again, and would sooner die, than let him pass another instrument for me: I have been worse ever since."

Let this be a warning to all who pursue this barbarous method; and if they have *no regard for their patients*, let them have some for their *own* reputations.

In conclusion, I would remark, as there is no disease which is so continued a source of mental and bodily agony, so there is none for the cure of which a patient is so truly grateful, and which attaches him so steadily and warmly to the interests of the surgeon.

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PRACTICAL TREATISE

ON

STRICTURE,

&c., &c., &c.

CHAPTER I.

OF THE CAUSES, SYMPTOMS, AND VARIETIES OF
STRICTURES IN THE URETHRA, WITH THEIR
CONSEQUENCES.

AN obstruction to the passage of the urine along the urinary conduit may arise from various causes, such as enlargement of the prostate gland, abscess in the perinæum, stones lodged in the urethra, &c., &c.; but the most frequent cause is a morbid contraction of the urethra itself, either under the form of a spasmodic or permanent stricture.

Stricture of the urethra is usually the result of inflammation, and as gonorrhœa, or clap, is at once the most common and violent source of inflammatory action in the urinary canal, it is very generally

regarded as the chief exciting cause of this disease. To a certain extent I concur in this opinion, notwithstanding that the contrary is maintained by some surgeons of eminence of the present day, and was also advanced by the late John Hunter, whose well earned reputation I readily admit claims for all his opinions the highest degree of confidence. This distinguished surgeon and others, entertaining his views on this point, say that the prevalency and frequency of gonorrhœa (there being but few men who have not suffered more than once from this disease in the course of their lives) is such, that if it were so exciting a cause of stricture as their opponents deem it, there would necessarily be an infinitely greater proportion of cases of stricture than are found to exist. For my own part, I cannot see that this mode of reasoning is at all calculated to settle the question, or support their views; for though it may be, and undoubtedly is, very true, that many thousands more suffer from gonorrhœa than from stricture, still gonorrhœa may be the most frequent exciting cause of stricture: for the question is not—what proportion do cases of gonorrhœa and stricture bear to each other, but simply, *what is the most frequent exciting cause of stricture in the urethra?* To this question I unhesitatingly answer—gonorrhœa, either directly or indirectly. I qualify my opinion in this manner, because, I must allow, that it is often a difficult point to determine whether the urgent symptoms,

that so frequently supervene on gonorrhœa, can in fairness be attributed to that disease, or should not rather be attributed to the neglect of a thoughtless patient, or the maltreatment of a rash, perhaps ignorant, practitioner. Where we are liable to meet with so many combined causes, each in itself capable of giving rise to the malady in question, it would be a task of no ordinary difficulty to attempt the assignment to each or any one its share in the production of the disease. But if we cannot say that gonorrhœa, *per se*, is the most frequent cause of stricture, I think we may safely assert, that by the aid it often derives from neglect or maltreatment, it is, without any other qualifications, the most frequent known cause of strictures in the urethra. It is, however, a fact, that will not admit of controversy, that individuals, who never had any previous visible affection of the urethra, have nevertheless had strictures, which circumstance has caused some authors to imagine that this malady is hereditary; such cases are exceedingly rare.

Strictures may result from any cause producing irritation or an inflammatory state of the membranes of the urethra,—such as that arising from the passage of gravel with the urine; from the presence of stone in the bladder; from sympathetic irritation, resulting from disease in some other parts of the urinary organs, or in the neighbouring parts, as the rectum; or from injuries inflicted on the perinæum.

Strictures which have their origin in the last-mentioned cause have this peculiarity, they are more rapid in their growth, and are generally of a more complicated character, from the injuries usually inflicted at the same time on the contiguous parts.* Some authors assert, that the astringent injections employed in the cure of gonorrhœa and gleet produce stricture, but I cannot give my unqualified support to this opinion,† though the imprudent use of them undoubtedly may have this effect; at the same time, I must state, I have never known a case where, when judiciously used, they have been attended with such results.

Excessive venery, the unnatural prolongation of the sexual act, the baneful habit of self-abuse, the long continued and immoderate use of ardent spirits, may be considered as powerful exciting causes to this disease; and where the slightest predisposition exists, they cannot fail to develop it.

* The case of Derby will illustrate this fact.

† Sir E. Home states, that he was informed by a gentleman, who held a high situation for sixteen years in the Maratta army in the East Indies, and who, from being entirely domesticated among the natives, had ample opportunities of gaining accurate knowledge upon this subject, that three-fourths of the natives of rank are troubled with strictures, which is entirely attributed to the effects of gonorrhœa; for the cure of which no local remedies are in use.

DIVISIONS OF STRICTURES.

Strictures of the urethra are usually divided into three kinds, viz., spasmodic, permanent, and mixed stricture. In addition to these principal divisions, some authors make a further subdivision of the varieties of stricture. Thus we find the irritable, the bleeding, and the sympathetic strictures, each occupying a class of its own. With regard to the two first of these subdivisions, their names sufficiently explain their characteristics, and as their origin differs in no way from the ordinary strictures, nor the means of their cure, I shall content myself with this brief notice of them. The last may require a more detailed notice. The sympathetic stricture then is supposed to take its rise from a diseased action in some other part of the human economy, with which the urethra is in sympathy. Now as the anus and rectum are the parts that are more directly in contact with the urethra, so it is mostly from disease in them that this kind of stricture owes its origin. It may, however, arise from derangement of the stomach and digestive organs generally. This form of stricture is usually spasmodic, although of course, like all other spasmodic strictures, is liable to become permanent. It is scarcely necessary to remark, that in the cure of this species of stricture, we must not forget to what it owes its rise.

SPASMODIC STRICTURE

May be considered as being, in the majority of cases, the forerunner of all the other forms of stricture. From patients labouring under this kind of stricture, we commonly receive some such account as the following, of the first appearance and progress of the disorder.

“I have had two or three attacks of gonorrhœa (say they), the last I had great difficulty in curing, if indeed I can even now say it is cured. For some days there is no discharge, and yet without any apparent cause it will again return, and with equal uncertainty again disappear; thus keeping me in a constant state of anxiety and doubt—feelings which have been lately not a little increased, by the uneasy sensations I have experienced in the urethra and perinæum upon passing my urine. Not that those sensations amount to absolute pain, but there is just sufficient uneasiness to make me uncomfortable, both in mind and body, particularly the former. My anxiety is further increased, by perceiving that the stream of urine is not so large as it was, and that I require to empty my bladder much oftener than formerly. This is more especially the case after exposure to cold or any irregularity, the difficulty then increasing to nearly a total stoppage.”

These symptoms are of course more or less urgent, according to the length and severity of the disease.

Again, we are in some cases told that the patient, whilst labouring under an attack of gonorrhœa, used an improper, that is, a too strong injection, which either at the first or some subsequent application produced great pain and smarting in the urethra, accompanied by violent spasms and a considerable increase of inflammation. These symptoms may even have run so high, as to give rise to a total or partial retention of urine, or so much irritation at the neck of the bladder, as to create a constant desire to urinate. Further we learn, that although the gonorrhœa and all symptoms of that disease were ultimately cured, yet the patient has ever since, from time to time, been exposed to the recurrence of the spasm and difficulty in voiding his urine.

In other instances, we learn that the patient, whilst suffering under gonorrhœa, imprudently joined a dinner party, and from not liking to expose himself to the suspicion of labouring under that malady, partook freely of wine, thereby aggravating the inflammation existing in the urethra to such a degree, as to cause a retention of urine: and although, as under the other circumstances already alluded to, the more urgent symptoms have been removed, yet the morbid spasmodic action that had been created has ever since continued in a greater or less degree. From whichever of these circumstances the disorder in question may have been produced, we generally find that the patient cannot at any time pass his water in the natural stream, although it may be voided at one period better than at another.

This difficulty in urinating ranges in different cases through every shade of obstruction, from the mere slight hesitation to the exit of the urine, to its almost total stoppage.

Thus we see that the symptoms indicative of the presence of spasmodic stricture are—an increased desire of urinating, a diminished stream, generally uneasiness in the urinary passage and contiguous parts ; which signs of morbid sensibility are liable at times to be so far aggravated, as to give rise to more urgent and marked symptoms. Another sign of the malady, which must not be forgotten, is a dribbling away of some portion of the urine after the patient has ceased to urinate. These symptoms are also invariably attended with a greater or less discharge of mucus from the canal.

If we examine with a bougie the urethra of a patient labouring under any of the foregoing symptoms, we shall find that there is no stricture, that is to say, no permanent contraction of the urethra. I am taking it for granted that the case is one of simple spasmodic stricture. This may appear a contradiction, but the fact is so, and it is not unusual for the surgeon to be able to pass a full sized bougie, although the patient may void his urine in an exceedingly small stream. In corroboration of this, I may state, that the urethras of patients labouring under spasmodic stricture have been examined after death, without any organic alteration being at all apparent, the only indication of disease being a slight inflammatory

blush on the surface of the urethra, and this confined to a very small spot of the canal. These circumstances have caused some authors to make a further division in the varieties of stricture, by giving to those which, notwithstanding they render the stream of urine small, yet allow of the passage of a full sized instrument, the name of dilatable stricture. For my own part, I do not see the utility of this division; for after all this species is only a milder form of what they subsequently call "spasmodic stricture."

I have stated that we find upon passing a bougie that there is no stricture, or in other words no *permanent contraction*. In what condition do we then find the urethra? We generally find it exceedingly sensitive throughout its whole course, and intensely so in some particular situation (usually about the end of the bulbous and commencement of the membranous parts of the canal), at which spot inflammation exists, more or less acute. Upon the instrument arriving here, the patient shrinks from it, complains of severe pain, and begs us to desist. At the same time, we feel the urethra contracting as it were on the point of the instrument, and its further progress is stopped. If the surgeon under these circumstances immediately attempts to thrust the instrument onwards, the spasms become still more urgent, and the result is, to cause considerable pain to the patient and aggravation of the disease, this too without our being successful in the introduction of the bougie. But if, on the contrary, a

gentle, though at the same time firm and continued pressure be made, the spasm will gradually cease, and the instrument pass on to the bladder. Thus, as I have just remarked, forming the “dilatable strictures” of some authors.

I would here pause, to recommend to the young practitioner, that when he is called upon to examine the urethra of a patient, he keeps in his mind the preceding observations. For simple as they may appear, he may rely upon it that the remembrance of them is *essential* to his *successful* practice in this distressing and important branch of surgery. From their disregard, I have known the most serious consequences arise—consequences that have not only been attended with severe suffering to the patient, but have blasted the reputation of the surgeon—when a more cautious treatment by another has shown how improper his system was.

But to resume. By gentle means the spasmodic impediment may be at once overcome, and a full sized bougie passed. However, this is not generally the case, as we mostly find (except in very slight cases) that we cannot pass a full sized instrument, although we may possibly succeed in passing a less one. Occasionally we cannot even pass the smallest. Should we have succeeded in the introduction of a bougie, as it is withdrawn we shall feel it grasped and held back with considerable power. In some instances, the force with which it is retained in the urethra is truly astonishing, making

it appear more as if the instrument was pulled back with the whole strength of a man's arm, rather than by *the small muscles* connected with the genito-urinary organs.

If the bougie that has passed should be of small size, the inexperienced practitioner, as well as the patient, is often deceived into the opinion of the existence of a considerable *permanent stricture*, accompanied by urgent spasms, forming what has been termed "mixed stricture." Hence the patient is frequently agreeably surprised to find, upon making water after the operation, that the urine is voided in a full sized stream, and with perfect ease, save perhaps a slight scalding, from the irritation produced by the introduction of the bougie. Should another operation be performed, the surgeon is not less astonished to find that he can now pass with perfect facility a full sized instrument. The following case may illustrate this:—A Gentleman, labouring under the symptoms above mentioned, came up to London, and applied to a surgeon of some eminence in the metropolis, who attempted to pass an instrument into the bladder, but failed; hereupon he informed the patient that he had a permanent stricture, for the cure of which it would be necessary for him to remain in town for some time. It so chanced that the gentleman the next day mentioned to a friend, whom I had cured about a year before of a severe stricture, the object of his visit to London; in consequence of this, by the persuasion of my former

patient, he determined on consulting me, and at once, accompanied by that gentleman, came to my house. He, however, did not then enter into any particulars, but merely requested me to examine the urethra, stating that he had a stricture. I did so with a full sized bougie, which, somewhat to my surprise, passed freely into the bladder. Upon this, I learnt the foregoing particulars, and at once explained to the patient that his case was not a permanent, but a spasmodic, or (according to some authors) a dilatable stricture. In this instance we see, that to relieve a stricture of this description, it is not always necessary to pass an instrument beyond the obstruction. For we find the attempt of the gentleman, who had been first consulted, was sufficient to open the passage, and thereby enable me to introduce the instrument. In a few days, the patient, finding that he could void his urine with perfect ease, left London. This is about four years ago. I have attended him several times since for other complaints; he tells me, that the difficulty in micturition gradually returns, and when it becomes troublesome, he passes an instrument, by which means the full sized stream is at once restored. He says the inconvenience is so trifling, that he would rather submit to it than to any treatment for his cure. He is not singular in this, for there are hundreds whose cases and feelings are similar, and who like him wilfully commit this neglect, until at length the dilatable or spasmodic stricture becomes a permanent

one. Then, in consequence of no longer finding that relief from the bougie they were wont to experience, they are reluctantly compelled to submit to a course of more tedious and painful operations than would have been necessary in the first instance.*

I have stated that in some of these cases, notwithstanding the diminished stream of water, a full sized instrument can be passed at the first attempt, and the full column of urine thereby almost immediately restored. However, in other instances, the results are not so immediately satisfactory, and repeated operations are required before the full sized instrument can be passed, and the patient void his urine in the natural stream. Under either of these circumstances, if the treatment has consisted in the simple use of the bougie, we too often find that the disease returns. In some instances in a few days. In others, weeks or months elapse before the patient is again compelled to apply to the surgeon. But he is sure to return, unless the recurrence of the disease shake his confidence in the abilities of his first surgeon, and thereby cause him to apply to some other. In speaking of the treatment of this species of stricture, I shall have occasion to explain why it is, according to my views, that the disease so invariably returns when treated

* As this portion of the work is going to press, the gentleman, to whom I have alluded in the above observations, has just been to place himself under my care, for the cure of a *permanent stricture*.

by the bougie alone ; I shall, however, here content myself with mentioning the fact.

Such then are the principal symptoms and facts which present themselves to the notice of the surgeon in this disorder. There is much conflict of opinion as to the agency by which is produced that peculiar spasmodic action, from which the disease derives its name. Hunter and others attribute it to a morbid action in the transverse muscular fibres, which they assert exist in the membranes of the urethra ; and if this assertion could but be proved, it would in some degree establish the soundness of their theory. Unfortunately however for this opinion, dissections and experiments, conducted with the greatest care and patience, have not only failed, in my opinion, to prove the existence of these muscular fibres, but have clearly demonstrated that the urethra is not a muscular canal.

For the elucidation of this point, some other explanation is therefore necessary. Before, however, I attempt to explain to the reader my views on this subject, I would first mention some practical facts, which I think strongly bear them out. First, I would state that I never met with a spasmodic stricture within two or three inches of the orifice of the urethra, whilst permanent strictures are not at all uncommon in that situation—why is this ? We know that that part of the urethra is equally exposed to the effects of inflammation as any other, nay, that

it is more so ; we see it also the seat of permanent stricture ; we rarely, I think I may say never, see it the seat of that peculiar spasmodic action denoted by the term spasmodic stricture. In the introduction of an instrument along this part of the canal, or in its withdrawal, we never feel the particular impediments we do in its more deeply seated portions. It is true we meet with impediments, but the sensations are very different. In the one, the obstruction we feel is overcome by the cessation of the spasm ; in the other, we feel that we are stretching an indurated tissue. Now if the transverse muscular fibres produced the disease in question, what is to prevent spasmodic stricture from being situated in those parts in which I have stated that I never found it to exist?—nothing. If, then, we find that it is the seat of a disease, which in other parts of the canal gives rise to spasmodic stricture, but which disease does not cause that malady when situated at that part, I think it is at once strong presumptive evidence that something more than these transverse muscular fibres (supposing them to exist) must be necessary to constitute spasmodic stricture. When, in addition to these facts, we observe that the spasmodic impediments increase as we approach those parts of the urethra that are more immediately under the influence of the muscles employed in the urinary and generative functions, I think every unprejudiced inquirer must at once feel that it is to the agency of these muscles we must attribute the disease in question,

rather than to those whose very existence is a matter of speculation. Further, these transverse muscular fibres are not demonstrable, and the supposition of their existence was only first induced from the symptoms presented in stricture, and not from dissection. The advocates of this opinion having first determined that the spasmodic action in question must result from some muscularity in the membranes forming the urethra, it was no difficult task for them to persuade themselves that they could then see those muscular fibres. Had the order of their researches, or rather conclusions, been reversed, I for one should have had more faith in them. From these and many other facts which I might adduce, all tending to controvert this theory of transverse muscular fibres, it appears to me quite clear, that the spasmodic contraction, which constitutes the impediment to the passage of the urine, is not in the urethra itself, but arises from a deranged action in the muscles employed in the expulsion of the urine, that deranged action being nevertheless caused by a morbid state of the urethra.

From the preceding remarks, it may be therefore deduced that the urethra, as the seat of disease, is in a state of greatly increased sensibility. The acrid urine, in its passage from the bladder, comes in contact with this morbidly sensible surface—morbidly sensible from the inflammation and its effects. For in addition to the necessarily increased sensibility attending on the presence of inflammation, the urethral

membrane is rendered still more susceptible from the want of its natural mucus secretion to protect it from the action of the urine. The consequence of all this is, that as the urine reaches this inflamed part, the muscles, which should be in a state of relaxation to admit the urine along the urethra, are, by the pain that results from the contact of the urine with this highly excitable portion of the canal, immediately, through the medium of the nervous system, thrown into violent and irregular action. Thus the bladder propels the urine into the urethra. That canal, as we have seen, being in a state of disease, the urine stimulates it in an undue degree, causing pain. Immediately on this, those muscles, as I have just remarked, which should be in a state of relaxation, or at the least only so contract as to advance the urine along the canal, directly and forcibly close the urethra, thereby preventing the escape of the urine, or at least allowing it to pass in a diminished column only.

From this we see the diseased urethra exposed to two distinct causes of excitement. First, that resulting from the stimulus of the acrid urine, and next that proceeding from the violent and irregular contractions of the muscles around the inflamed and irritable portion of the canal.

This is in my opinion the most natural explanation of the condition of the urethra of a patient labouring under the disease in question, as also the most cor-

rect account of the means by which the spasmodic action is produced. Spasmodic stricture therefore may be briefly defined to be an *inflammatory state of the urethra, accompanied by a deranged or undue action in the muscles employed in the evacuation of urine.*

Upon a review of the preceding observations on spasmodic stricture, I find that, in describing the symptoms attendant on that disease, I have in some degree expressed myself in such a manner as might lead the reader into error on this head. To guard against this I would remark, that he is not to suppose from what I have said above on the symptoms of this disease, that in all cases the inflammatory and painful sensations are so urgent as there represented. Were he to do so, he would form a very erroneous notion of this disease, as it is no uncommon occurrence for a patient to experience considerable difficulty in expelling the urine, and yet suffer very little pain. For example:—A patient having laboured under a severe gonorrhœa, which by proper treatment has been cured, after some time observes that the stream of urine is not so full as formerly—that he requires to pass water somewhat more frequently, and that the act of micturition demands more muscular exertion, and is also accompanied by slight sensations of uneasiness in the urethra, not however amounting to pain, but producing a sensation of heat or titillation. In short, these few

and slight symptoms, conjoined to the difficulty of voiding the urine, are all that he remarks, and it is only until they have existed for a considerable time that the more urgent signs of his malady appear. When they do, his sufferings are no less intense than those whose symptoms I have already detailed.

PERMANENT STRICTURE.

The symptoms which have been above fully detailed may exist for an indefinite period, but if neglected they seldom fail to produce permanent stricture. For this it is not difficult to account. The urethra as we have seen is in a state of inflammation, and in consequence liable to be acted upon by causes which in its healthy condition would exert no pernicious influence on it, but which under contrary circumstances are most injurious. Thus the act of micturition, which is a vital function that this portion of the human frame is destined to discharge, becomes, when the urethra is in a state of disease, a prolific source of suffering and increased derangement, by acting upon the already too susceptible surface of the urethra as a constant source of irritation. Consequently the existing inflammation or irritation is, by the passage of the urine, continually augmented, or at the least maintained. Now the effects of the long-continued existence of inflammation in any portion of the body are a total alteration in the structure of the part

exposed to its action. Under its influence hard substances become soft; the firm tendon, spongy; the transparent membrane, thick and opaque; the pliant part, rigid. So when the urethra is exposed to violent or long-continued inflammation, it loses its elasticity, becomes thickened and indurated at the seat of the inflammatory action, and no longer readily yields to the *distension* necessary to the free passage of the water. Hence is required, on the part of the bladder and the muscles employed in the evacuation of its contents, increased muscular exertion for the expulsion of the urine. This increased exertion becomes in its turn a fresh source of disease. For as the stimulating urine is propelled with additional power against the unyielding portion of the urethra, more irritation ensues, and the result of this continued undue excitement is, in the end, as before remarked, *to destroy the ELASTIC* character of the urethra, and render it thick, hard, and even cartilaginous. If the attacks of inflammation be severe and of frequent recurrence, the contiguous parts become involved in the mischief, which is in some situations palpable to the touch and eye. In this manner may we trace the gradual advance of the disease, until from a slight inflammation, or spasmodic stricture, it becomes a permanent contraction of the urethra.

With regard to the symptoms of permanent stricture, I have already stated that in most cases spasmodic stricture is but the commencement of the former, con-

sequently we may expect to find all the symptoms that exist in the latter present in permanent stricture, varying of course according to the intensity of the disease. Besides those symptoms, there is another which is nearly an infallible sign of the malady, namely, that the stream of urine, although it may vary, never acquires its natural size. There is yet in most cases another symptom, and a very dangerous as well as deceptive one, indicative of the termination of spasmodic into permanent stricture, viz.,—*the patient is not so much troubled with the violent spasmodic affections* which were so distressing to him in the earlier stages of the disease, nor is he liable to the frequent attacks of retention of urine which he before experienced. He is thus frequently deceived into a false security, from which he is only awakened by a more severe attack than he had ever suffered before. The reason of this is, that as induration follows on the inflammation, the mucous membrane loses its sensibility at the strictured portion of the canal, becoming as it were callous; so that it is not equally liable to be influenced by such slight causes as it was at an earlier period of the disease before any alteration of its structure had occurred. When it is attempted to pass a catheter under these circumstances, the patient finds, to his utter astonishment, that instead of passing a No. 10 (which he might have had passed before when attacked with retention), neither he nor the surgeon can, without great difficulty, pass one of half the size—nay, per-

haps not one even of the smallest size—so insidious shall have been the progress of the malady. For instance, the following is no uncommon occurrence: A patient has for some time laboured under all the urgent symptoms I have mentioned whilst speaking of spasmodic stricture. He has had pain and difficulty in voiding his urine, perhaps a retention. The more serious symptoms may, by the aid of medicine, and by great care as to diet, drink, &c., have been removed. In short, he shall be scarcely sensible of any difference in the stream or power of voiding his urine, or if he be very attentive, shall merely observe that it flows somewhat more slowly, and that a few drops pass off after he has ceased to urinate. This, if he gives it a moment's thought, he deems of no consequence, and congratulates himself on his cure, for the disappearance of the acute symptoms makes him think that nothing serious can be going on. Still by *gradual* and imperceptible degrees the stream of urine diminishes. The false security which buoys him up prevents his noticing this, and at length, fully impressed with the notion that he has nothing to fear, he resumes his usual habits. Suddenly a considerable accession to the slight difficulty in urinating arises, accompanied by evident symptoms of inflammation, to which may be added a retention of urine, and if the urethra is then examined, the result is similar to what I have above stated, viz.—he will not be able to pass half so large an instrument as he could before.

The principal symptom then that indicates the existence of permanent stricture of the urethra, in addition to those attendant upon spasmodic, is that the stream of water, although it varies, never acquires its full size. This is the distinguishing mark between the two disorders. For example:—A patient labouring under spasmodic stricture may, by the aid of a warm bath, opiates, and aperients, be able in a day or two to void his urine with the greatest ease. Not so with him who labours under permanent stricture. Nothing short of the removal of the disease by operations can restore his power of urinating in a full and free stream. Yet this invariably diminished stream must not be admitted as an infallible proof of the existence of permanent stricture. For it might happen that the spasmodic affection should be so severe as, at all times and under all circumstances, to cause the urine to flow in a contracted column. Hence it becomes necessary for us, before we venture to assert that a patient has a stricture, to examine the urinary canal with an instrument. But this may lead us into error, and unaccountable as it may at first appear to a novice in the treatment of this disease, it too frequently occurs that patients have been for months compelled to submit to the daily introduction of bougies, sounds, or catheters who have never had a stricture!

The knowledge that such lamentable mistakes have been made should enforce upon us great caution

in pronouncing an opinion on this subject. An erroneous diagnosis on this head is disastrous alike to the patient and the surgeon. The one suffers in body, the other irreparably in his reputation. The main cause of this error is the employment of small instruments in exploring the urethra. Consequently where we have occasion to examine the urethra with an instrument, we should do so with a full sized one, that is to say, with one that fully occupies the canal, but does not painfully stretch it. With regard to the kind of instrument we should employ for this purpose, I do not think it is of much consequence whether the bougie be a solid or flexible one: for we should be able to pass any kind of instrument. However, some accustom themselves to metal bougies, others to silver catheters, others to wax bougies, and others to elastic gum instruments. Whilst, I repeat, we should be able to pass any that comes to hand—if I have a preference, it is for solid instruments. If then, in addition to the symptoms I have mentioned, we fail upon examination to pass an instrument, we may mostly safely infer that the patient is labouring under stricture of the urethra.*

* For a more detailed account of the causes that lead to an erroneous opinion on this subject, see my little work, entitled *Has he a Stricture? &c.*

Of the Varieties of Permanent Stricture.

Permanent strictures are divided into three kinds, viz. :—the thread like; the broad, or riband; the irregular. The first is I believe also called by French surgeons, and Sir Charles Bell, the “bridle stricture.” It is the mildest form of this disease. The second, as its name implies, is of greater extent than the first. This may arise either from the original seat of inflammation being more extensive than in the thread stricture, or from the gradual increase of the former; such increase arising in the following manner. We will suppose a patient to be labouring under a “bridle stricture.” Well, the urine is propelled along the fully-distended urethra, which is free from disease, between the bladder and stricture. When it reaches the contracted portion of the canal, the whole column of water is urged with great force against the unyielding surface of the stricture that is towards the bladder. The consequence is to produce and keep up an inflamed and irritable state of that part of the stricture and the urethral membrane just behind it. Here, as elsewhere, continued inflammation causes induration, and thus is the thread stricture gradually converted into the broad. The irregular stricture, like the preceding ones, has its origin in repeated attacks of inflammation, which

instead of producing, as in the broad, a uniform contraction of the canal, has caused narrow and irregular indurations of the urethra, on the whole extending an inch or more over the surface of the canal, with slight intervening spaces free from contraction, or only slightly contracted.

OF THE MIXED STRICTURE.

With respect to this species of stricture it is only necessary to remark that it, like the other kinds of stricture, is the result of inflammation.

The mixed stricture presents all the peculiarities observable in permanent and spasmodic strictures. Like the permanent stricture, it is always narrower than the rest of the canal; whilst, like the spasmodic, it is liable to be at one time more contracted than at another.

Situation of Strictures.—Stricture may occur in every part of the urethra. Some authors except the prostatic portion, whilst others make no exceptions; for my own part, although I could not assert that strictures never arise in the prostatic division of the urethra, yet I am strongly inclined to think that they rarely occur there, and that many parties mistake a diseased state of the prostate for a stricture. Be this as it may, the most common situation of stricture

is about the bulbous portion of the urethra, where it becomes connected with the membranous. The situation next in frequency is between three and four inches from the orifice, and then at different points before and behind the parts mentioned. Stricture is also occasionally seen at the orifice itself.

We have now traced the onward course of this disease through the several stages, which it is almost sure in succession to pass if neglected or maltreated. In its first stage it is a source of comparative trifling inconvenience. A mere gleet discharge, with a slight irritation in the urethra (which however does not amount to pain) in voiding the urine. A night's debauch increases the symptoms. A slight scalding ensues; these warnings are disregarded, and the sensibility of the urethra increases. Time passes on, and from some further excess or neglect a fresh stimulus is given to the existing morbid action, an increase of inflammation follows, and a partial or total retention of urine is the consequence. If slight, the new symptom is soon forgotten, and new excesses of some kind are committed with similar results, until from the continued irritation and repeated attacks of inflammation, induration and stricture follow. Thus may be briefly traced its gradual development, from a slight affection to one of the most formidable diseases to which humanity is liable.

OF THE CONSEQUENCES OF STRICTURES.

In treating of the symptoms of these maladies, I have noticed some of their more immediate consequences. I shall therefore merely observe, that whatever may be the species of stricture under which the patient labours, the stream of urine is always regulated in a great degree by the extent of the contraction, although, as we have seen, it is liable from various causes to be at times still more diminished.

When the disease has been of long continuance, or is exceedingly severe, the patient has a constant desire to pass his water. He is harrassed both day and night by the frequency and urgency of his calls to urinate, and often can do so only with the most painful exertions. As the disease continues, the water no longer flows in a stream, but is voided drop by drop, or half a tea-spoonfull may by great straining be as it were squirted out. An ounce or two is all the patient can void at a time. In this state he hardly ceases to urinate ere he feels an urgent desire to do so again. He is thus tormented by the constant desire he experiences to pass his water, and the fear not alone of failure, but of the pain which he too well knows the attempt will cause him. This too even if he succeeds, does not relieve him from the continual inclination he has to evacuate the contents

of the bladder. Dreadful as this state is, it is only a part of the dire effects of stricture when it has arrived at this height. For the urine passed is not sufficient in some cases to free the bladder from distention, consequently that viscus at length becomes overdistended. The sphincter at its neck no longer retains the power of fully arresting the urine, which is consequently only stopped by the stricture. At the same time the urethra, behind the contracted part of the canal, becomes enlarged, and forms as it were a second bladder. The urine that thus escapes from the bladder is continually dripping from the passage, and if the patient makes the slightest exertion, if he cough or run, it gushes out in small quantities. Further, the orifice of the urethra and glans penis become inflamed, from the constant dribbling of the urine over them. The patient's clothes and linen become saturated therewith, and in the end, whatever may be his station or wealth, he can hardly fail of becoming an object of disgust to all around him, from the stench imparted to his linen by the foetid urine. When the disease has arrived at this point, the patient's state is truly critical. The slightest imprudence, nay the most trifling occurrence, often suffices to cause a total retention of urine, and thus endanger his life.

OF RETENTION OF URINE AS A CONSEQUENCE OF
STRICTURE.

The sufferings of a patient as above described, great as they are, may be aggravated by a complete retention of urine. In this case the agonizing pain which he endures can be equalled only by the danger which threatens him. The desire to urinate is now incessant, whilst every attempt to do so is attended by the most excruciating pain, nor are his mental sufferings less than his bodily. As the retention is prolonged the bladder gradually rises to the umbilicus. The abdomen becomes painful to the touch, the pulse hard, full, and frequent; and the face flushed. Cold clammy sweats break out at every attempt to micturate. In short, the whole system is deranged. Should the retention remain long unrelieved, delirium ensues, and the patient's danger is imminent. Again, the large quantity of urine accumulated in the bladder prevents the escape of that secretion from the ureters, they in consequence become distended, and finally, the kidneys themselves are involved in the mischief. The irritation caused in the latter organs, if not quickly relieved by nature or surgical aid, produces in them inflammation, which soon extends to the peritonæum. In other instances, the urethra posterior to the stricture, being irritated by the acrid urine and the powerful exertions made for

its expulsion, becomes violently inflamed and rapidly passes into a gangrenous state. In some cases the distension, together with the violent efforts to void the urine, causes the urethra to give way behind the stricture. Whichever occurs, extravasation of urine, with all its frightful consequences, is the result. In the preceding remarks on retention of urine, I have had more in view that which is the result of permanent stricture, than that which arises from spasmodic. In the latter case the retention is seldom so urgent, and is also more easily removed. Indeed there are but few cases of retention from spasmodic stricture that may not be relieved, and according to my own experience, I should say those few cases are more frequently the consequences of improper treatment than the severity of the disease itself.

OF FISTULA IN PERINEO AS A CONSEQUENCE OF STRICTURE.

This disease may arise from extravasation of urine taking place under the foregoing circumstances. It happens not unfrequently however that it is more slow in its progress, and commences when the patient is suffering only comparatively slight inconvenience. Its origin and progress may be thus traced. That part of the urethra behind the stricture receives a greater quantity of water than can

pass through the obstruction. The vent is not adequate to the column of urine that is expelled from the bladder. The consequence is, that all that portion between the bladder and the stricture is unnaturally distended, and as the greatest resistance is at the stricture, so the greatest force is there employed to overcome the impediment. But the force cannot overcome the hard stricture. It will not yield. Not so however is it with that portion of the urethra situated behind the stricture; for we find it gradually yields, until at length a kind of sack is formed in which the urine becomes collected. Every fresh call to empty the bladder increases the collection. The highly sensible urethra cannot very long endure this state of distension, and the result is in the first place active inflammation, and in the next gangrene. At times, ulceration taking place, the membranes forming the urinary conduit are destroyed. The urine, consequently no longer retained, escapes through the opening, filtrates into the cellular tissues, and penetrates to the adjacent parts. Under these circumstances the scrotum, penis, and perinæum are considerably enlarged. It also occasionally happens that the infiltration extends to the groin and lower part of the abdomen, forming altogether a complicated and formidable mass of disease. For wherever the urine penetrates, it carries with it destruction to the part exposed to its action. Again, in other instances, the escape of urine is more circumscribed,

causing only a tumour in the perinæum. In either case, but especially in the former, the situation of the patient is truly awful, and if he be not quickly relieved by the interposition of art, his death is almost inevitable.

Should the tumours that may present themselves burst or be opened, pus and urine are discharged from them, and thus are established one or more fistulous openings in the perinæum.

OF RIGORS.

This is a very frequent, alarming and distressing affection in cases of stricture. It strongly resembles in its symptoms, an attack of intermittent fever. Some patients are exceedingly liable to its attacks, in whom it comes on without any very traceable cause beyond the irritation of the stricture. In others it follows the first introduction of an instrument through the stricture. It is also very constantly seen after violence has been used in passing a bougie. For instance, the following cases are not uncommon. A patient has a bad stricture, through which the surgeon after some time passes a bougie, but in doing so he has used force, and bleeding from the urethra follows the operation. The next time the patient makes water after the operation, he experiences upon the urine reaching the stricture a most acute cutting,

burning pain in that part and along the whole canal. The pain thrills all over him, as he expresses himself. At the instant a slight shivering takes place, which is succeeded by another and another fit of shivering. The rigors having thus commenced, the patient presents all the appearances of a man in the cold stage of ague. In some cases the slight fit goes off, but the patient, notwithstanding, feels cold, uncomfortable and depressed. Suddenly he experiences a chilly creeping sensation in every part of his body; a rigor ensues, and is repeated in short intervals for a longer or lesser period. He next becomes exceedingly hot, and lastly, a profuse perspiration occurring, he is relieved. If the attack has not been very severe, the patient in four-and-twenty hours is restored to his previous health; the only difference being that he feels exceedingly weak, and continues so for a few days. In other instances, weeks elapse before the patient is restored to his previous health. Further, when they have once occurred, they are exceedingly prone to return upon the slightest cause. I know of no satisfactory explanation of the symptoms presented to us in this disease; they are, however, evidently connected with the nervous system. But how it is they are produced so suddenly, I am at a loss to explain. For instance, I have seen patients who have never had any symptom of the malady in question, almost instantaneously attacked by it upon making water *directly after* an operation that has

caused hæmorrhage. I have further remarked, that in proportion to the time that has elapsed between the operation and the patient's making water, so have the chances of the attack of rigors been increased or diminished; hence, in these cases, I generally operate with the catheter; by this means the bladder is emptied at the operation, and the patient can consequently remain longer without voiding urine, and thereby is much less likely to have an attack than otherwise. In all cases I recommend the patient to refrain as long as possible from urinating after an operation. But it must be confessed, that in spite of every precaution, attacks of rigors will in some cases be a frequent and alarming attendant on strictures in the urethra.

OF CATARRH OF THE BLADDER AS A CONSEQUENCE OF STRICTURE.

This disorder is a very common complication of stricture. The derangement created by strictures to the free exit of the urine very quickly produces, as we have seen, an irritable state of the bladder. Hence the increased desire to urinate. As the strictures advance so does the proneness to disease in the bladder. When at length the obstruction to the exit of the water arises to such a height, or even before, as to keep the bladder in a constant state of

distension, inflammation of the mucous membrane of the bladder occurs, and along with it a copious secretion of viscid mucus. This secretion, from its consistency, passes through the stricture with much greater difficulty than the water, and occasionally stops up the passage entirely; thereby causing a severe retention of urine. This morbid secretion, if allowed to remain for sometime in the chamber-pot, settles to the bottom, and if the urine be poured off it will be found to cling most tenaciously to the sides of the vessel. It also accumulates in the bladder, where it undergoes decomposition, thereby imparting a fœtid odour to the urine. Sometimes deposits occurring from this secretion and the urine give rise to stone in the bladder. Catarrh of the bladder is also often produced by the improper use of instruments, and sometimes follows an attack of retention of urine.

OF CYSTS OF THE BLADDER.

In protracted cases of stricture we occasionally meet with this disease. Cysts or pouches are supposed to be produced in the following manner.

In severe and protracted cases of stricture, the bladder is constantly over-distended by the accumulating urine. The powerful muscular contractions that are required for the expulsion of the water on

the part of the proper muscular coat of the bladder and the abdominal muscles is so great, that the internal or mucous coat of the bladder slips, or is protruded as it were between some of the fibres forming the external or muscular coat of that viscus. Thus a pouch is gradually formed. Sometimes two or three of these cysts are found in one bladder, capable of holding from one to six ounces of urine.

Having in the foregoing pages noticed the most grave maladies arising from strictures of the urethra, I shall now proceed to mention summarily some other disorders incidental to it. Amongst these are disorders of the prostate gland, enlargement of the ureters, and fatal diseases of the kidney. Also severe maladies of the testicles, hernia, a varicose state of the blood-vessels of the lower extremities, &c. &c.

After having thus briefly brought under the notice of the reader the causes and varieties of strictures, their symptoms and consequences, we now proceed to the consideration of the different modes of treatment that are at present generally practised.

CHAPTER II.

OF THE DIFFERENT MODES IN PRACTICE FOR THE CURE OF STRICTURES IN THE URETHRA.

IN the preceding remarks we have shown spasmodic stricture to be the result of a morbid sensibility of the urethral membrane, whereby is produced a deranged action of the muscles employed in the expulsion of the urine from the bladder.

We have also seen that permanent stricture is an obliteration of the natural diameter of the urethra in one or more parts, whereby an impediment to the free evacuation of the urine is caused in a greater or less degree. Hence the indication for the cure of these diseases is at once obvious; viz., in the one case to destroy the morbid sensibility which creates the spasmodic derangement. In the other to remove the indurated portions of the urethral membrane forming the permanent contractions.

The various modes of treatment that have been adopted for this purpose are, first, the dilatation of the stricture by the common wax, flexible, or solid metallic bougies. Secondly, the introduction and retention of catheters in the urethra until the full-sized instrument can be passed. Thirdly, the application of the lunar caustic. Fourthly, an exploded

method has been attempted to be again brought into practice by Mr. Stafford; viz. the division of the stricture by means of some cutting instruments, which he calls "Lancetted stilettes." Fifthly, the application of the kali, as first employed by the late Mr. Whately, and also used by my late father for a period of thirty-five years.

OF THE TREATMENT BY BOUGIES.

The treatment of stricture by bougies consists in the gradual dilatation of the strictured portions of the urethra, by means of solid or flexible bougies, which are introduced at intervals, and the sizes of which are gradually increased according as the contractions yield, and until an instrument of the full diameter of the patient's urethra can be freely passed. The time the bougie is allowed to remain in at each operation varies. Some surgeons recommend that it be kept in for a few minutes only, and others that it should remain in the grasp of the stricture a much longer period. The most general practice, I believe, is to keep it in from ten to fifteen minutes. However, it seems to be a matter that depends more upon the caprice or convenience of the surgeon than upon any fixed rule.

Much difference of opinion exists as to the action of the bougie on the stricture. Some assert that its

action is merely mechanical. That, like a wedge, it only stretches or dilates the stricture, but does not remove the indurations forming the disease. Others, on the contrary, maintain that the action of the bougie is not so limited, but that by its pressure on the indurated tissues of the urethra, an increased action of the absorbent vessels is created; by which means the morbid growths are absorbed or removed, and the canal thereby restored to its natural and healthful state. The advocates of these opinions each adduce many plausible arguments in support of their views. But as it is a point that remains undetermined, and I fear must ever remain so, from the impossibility of obtaining ocular demonstration of the parts either in their simple state of disease, or whilst under the influence of our remedies, I shall avoid the discussion which the full consideration of the question would invite. At the same time I would state that my opinions incline to the support of the first proposition. I am mainly led to this conclusion from the little permanent benefit that results from the treatment by the bougie alone. If this theory of the absorption of the indurations forming the strictures were correct, I cannot conceive why the cure should not have a more permanent character than it has, the more especially when it is produced by such natural and simple means as this theory implies. When in addition to this I find that the original formation of stricture is in most

cases exceedingly slow, the work perhaps of years ; and yet that after it has been absorbed (if this theory be correct) that which was the product of years of slow disease, is frequently reformed in a few weeks, I confess I look upon this theory, if not as totally erroneous, as at least exceedingly doubtful. If I inquire further, I find that a cure effected by caustic presents a more permanent character than that by dilatation alone. Why is this ? Supposing the theory of absorption to be correct, the permanency of the cure should at least be equal to that effected by caustic applications ; for by the one the stricture is removed by the simplest and mildest means (great odds in its favour), whilst by the other it is only removed by the application of a most powerful remedy, the employment of which necessarily causes greater disturbance to the parts, and consequently, one would naturally think, afforded less prospect of a permanent cure. But there is this in favour of its permanency, *it does indisputably remove the stricture* ; thereby doing that in reality, which the bougie alone does but in theory. However, without stopping to inquire further as to the correctness of the one or the other of these views, I believe this disposition in the stricture to re-appear after the treatment by dilatation is universally admitted. Hence the popular and erroneous notion of the impossibility of effecting a permanent cure in this disease.

This want of permanency in the cure of stricture by the method of dilatation, is a strong objection against relying on that mode of treatment, even when we can by it completely dilate the contractions. But in cases that are impervious to an instrument, the objections are, in my opinion, of a still stronger character. We will take, for instance, a severe case of stricture, one that will not allow of the passage of the smallest sized instrument. Now let us ask what the advocates of the method by dilatation would recommend us to do in this case. Why they tell us to try to dilate the stricture by means of a bougie that corresponds to the stream of urine that the patient voids; which is in effect to bid us use the smallest sized instrument that is made. If in pursuance of this advice we employ a firm metallic instrument, the point of it will be so fine that we shall incur the greatest risk of its piercing the urethral membrane. The indurated part of the urethra will most likely resist the instrument, unless very great force is used; but the sound portions around the stricture, which are of an exceedingly fine texture, will readily be ruptured. Thus, as the point of the instrument is moved about to find the opening of the stricture, it may chance that it slips either to the superior, inferior, or lateral part of the urethra around the stricture, and being then pressed on, it ruptures the urethra, and a false passage, with all its attendant evils, is formed in one of these directions. The gum cathe-

ters, with wire in them, are equally dangerous; and wax bougies or flexible gums of this size are so weak, that immediately any pressure is made with them they bend in all directions: so that the operator has no controul over, or even knowledge of the direction they may take. In short, after many years experience in the treatment of this disease, I feel that I am not guilty of any exaggeration when I say that at least two-thirds of the false passages that are made are the result of attempts to dilate impassible strictures with small instruments.

But suppose these objections to be groundless, there is yet one, in my opinion, scarcely less strong against relying on the bougie alone for the cure of severe strictures; viz., the length of time that is necessary to accomplish the cure by their employment. For under the most favourable circumstances a severe stricture is rarely removed by the bougie in less time than three or four months.

My objections then against the sole employment of the method of dilatation for the cure of strictures are briefly the little permanent benefit it affords, the risk it creates of lacerating the urethra, thereby causing the formation of false passages; and the length of time required to effect the cure. Add to these objections the fact that months are frequently spent in vain attempts to dilate a stricture; and I think we oppose strong reasons to this method of treatment even if we had no better to suggest. But

when we further learn that we possess a remedy (which I hope by and by to convince the reader we do in the kali) against which, according to my own experience, no such reasons can in justice be urged, I feel my objections to the method of dilatation increased tenfold. I doubt not but that some of my readers may feel inclined to dispute the superiority which I claim for the kali over all other modes of treatment. These parties may urge that it is a dangerous remedy, and that the cure is not more permanent than that effected by the bougie. I will grant them this if they like, because to a certain extent it may be a matter of theory and individual opinion. We will, therefore, say that the method of dilatation, and the treatment by the kali, are on a par (I can concede no more than this) as regards safety and the permanency of the cure. Yet there shall remain a strong and indisputable point (as I shall show presently by facts) in favour of the kali; namely, *by one application of it more good shall be effected than by ten operations with the bougie.*

The following case fully confirms this.

“ August 14, 1836.

“ William Duggin applied (this case is from my Infirmary Note-book).—States that nineteen years ago he was seized with a retention of urine after having drank freely of some ale. He was at that time living at Wrexham. Mr. L., a surgeon residing

there, introduced a catheter, and drew off the urine; leeches were also applied, and in a few days the attack was subdued, and he voided his urine pretty freely, although not in so large and full a stream as natural. A short time after this he was in Dublin, and from some irregularities another retention of urine occurred; he applied to Mr. B., surgeon, who relieved him by the catheter: he continued under this gentleman's care for fifteen months without being cured of his strictures. He then applied to Mr. C., the surgeon of Madame Stephen's Hospital, Dublin, who, for a period of nearly two years, regularly introduced bougies twice a week. Under this mode of treatment he got much better. It should have been stated, that Mr. B. relied principally on internal medicines in his treatment of the case. Having left Dublin, he foolishly neglected himself for two years, at which time, after having drunk freely, another retention of urine took place. It appears that, previously to this, the stream of urine became gradually smaller; indeed the strictures had become so severe, that he had for some time only been able to void his urine in drops: the water was also constantly dribbling from him, so that he was compelled to wear linen cloths around the parts to absorb the urine. The perinæum was also greatly swollen. In this state he sought the aid of a surgeon, whose name he forgets, at Monmouth. No attempts were made by this gentleman to pass a catheter, but some

medicines were prescribed, and fomentations were ordered to the tumour in the perinæum; the warm fomentations enabled him to pass, at different times, small quantities of urine, and so relieved the complete retention. In the mean time, however, the swelling in the perinæum gradually increased, and in about a month from the attack of retention, a fistulous opening was formed at the anterior portion of the scrotum, from which was discharged a great quantity of matter and urine. Mr. — now said he would consult on the case with Mr. P., a surgeon of eminence, at Monmouth. Mr. P. tried to pass a catheter without success. After this, three more fistulous openings appeared, a little posterior to the first, and three in the perinæum, just behind the scrotum. The urine now passed by all these fistulous openings as water through a sieve. In this state he continued four months, when seeing no hopes of obtaining relief at Monmouth, he went to Bristol, and was admitted a patient at the County Infirmary. He remained there thirteen weeks, during which time no progress was made towards the cure, it not having been possible to pass a bougie more than three inches from the external orifice. Mr. —, one of the surgeons, told him that it would require at least two years to effect his cure, if indeed it could be accomplished at all. This so discouraged him, that he left the hospital. The dreadful state he was now in prevented his working, he therefore took to travelling about

the country, selling memorandum books. Some months after this, having wandered to Wells, in Somersetshire, he heard, to use his expression, that a Mr. C., a surgeon of that town, was "a very clever man." He applied to him, and was under his care for three weeks, when Mr. C., finding that he had made no progress, recommended him to endeavour to get into some hospital. In 1834 he purchased, at Bath, some pills he saw advertised, but of course without receiving any benefit from them. In this deplorable state he has continued ever since. He is often compelled to sleep in the streets at night, with his grandchild, a boy of six years old. He applied at a large hospital in this town, and was told his case was incurable. Upon examination, I found four fistulous openings, through which the greater portion of his urine passed; a small quantity however continued to flow by the natural passage; the perinæum was swollen and indurated, as was also a great portion of the urethra. Upon passing a bougie, its progress was arrested at four-and-a-half inches from the external orifice; beyond this I could not pass the smallest bougie. I now passed down to the stricture a soft wax bougie, with a view to ascertain, if possible, the situation of the opening in the stricture; upon withdrawing it, I found that its point had evidently entered the stricture. I now armed a bougie with the kali, and passed it down to the obstruction, against which it was firmly pushed for a

few seconds, and then withdrawn: he complained of slight pain.—August 16th. Says he is better. Upon introducing a small bougie, to my great surprise it passed the stricture to which I had applied the kali; its progress was however arrested about an inch further down by a second stricture.—August 18th. Says he is much better; does not pass his water so frequently, and less comes by the fistulous openings. Upon introducing a very small silver urethral ball, it passed over the first stricture, stopped at the second, a little pressure caused it to advance, and then enter the bladder, jumping however over two slight strictures. Upon withdrawing the ball, I found the inferior portion of the urethra situated between the first and second stricture to be exceedingly ragged, with numerous ridges of stricture, giving a sensation to the touch similar to that which arises from drawing a ball over loose stones. A small quantity of blood followed the instrument.—August 20th. I received a letter from him, stating that in consequence of having got wet, he was attacked with shivering and fever, which had prevented his reaching the Infirmary. He at the same time informed me that the strictures were better.—August 22d. Attended. Says he is much better; does not require to pass his water so frequently, the greater portion of which flows by the natural passage. I succeeded in passing a small catheter into the bladder. I applied the kali to the strictures.—August 23d. Says he is better.

I passed a metallic bougie (No. 4) into the bladder.—August 24th. Better. He thinks that scarcely any water passes by the fistulous openings. Applied the kali.—August 25th. Not so well. Last night, not having the means to procure a bed, he and the child slept in the streets. I had offered to admit him into the Infirmary when he first applied, if he could get a temporary asylum for the child, and he has been endeavouring ever since to get it taken into the work-house, but without success. Finding that the exposure to the weather, and the want of proper diet, would retard, if not altogether prevent his restoration, I mentioned his case to two gentlemen (one a surgeon) who were under my care for stricture, and we raised a fund for the support of the child, whilst its grandfather was in the Infirmary. He now became an ‘in-patient.’ I applied the kali.—August 26th. Better for his comfortable lodging. I directed him to have a warm bath.—August 27th. I passed metallic bougies (Nos. 8 and 9). I should state that I had some time previously directed an ointment (of camphor and iodine) to be rubbed on the indurated parts of the perinæum and urethra, the hardness in both is now much less, from the use of the ointment; the urine only flows by one of the fistulous openings, the rest are healed.—August 28th. I passed No. 10. Improving in every respect.—August 29th. He thinks the last opening is healed, as he cannot find that any water passes from it.—September 10th.

Since the 29th of August, I have continued to pass No. 10 daily ; the indurations are nearly gone ; the fistulous openings perfectly healed, and he is so well that he goes out to endeavour to get some employment." I regret to add, that I cannot say how he continued after he left the Institution, for a few days after this it was discovered he had stolen a blanket from his bed ! Under these circumstances, I cannot speak to the permanency of his cure. However, whatever may have been his ultimate fate, his case fully bears out the assertion I have made as to the capability of one application of the kali to effect more towards the patient's cure than repeated operations by the bougie alone.

OF THE TREATMENT WITH CATHETERS.

This method of cure is held in high esteem by French surgeons. The plan they adopt is to pass through the stricture, and into the bladder, such a sized catheter (generally a gum elastic one) as the contraction will admit. The catheter is then fixed in the urethra, with a plug at the end of it, to prevent the escape of the urine, and when the patient desires to urinate, he relieves himself by withdrawing the plug. The instrument, thus fixed, is allowed to remain in until it is quite loose, when it is withdrawn,

and a larger sized one passed, which is retained in a similar manner. From time to time the catheter is thus changed, until one of the full diameter of the patient's urethra can be freely passed. The retention of the catheters is then discontinued, and the remaining treatment consists in the occasional introduction of a catheter, or bougie, for so long a period as the surgeon thinks necessary.

With regard to the advantages offered by this mode of treatment over the other methods of cure that are in practice, the only one that I know of is the expedition with which strictures may sometimes be removed by it. Whilst on the other hand, the objections that can be urged against it are of so strong a character, as to totally overweigh this solitary and uncertain advantage. The objections against this method of treatment are, the confinement it subjects the patient to, the pain and severe irritation frequently produced in the urethra, prostate gland, and bladder; indeed, so intense is the pain caused by the prolonged retention of the catheter, that the patient is only rendered able to endure its continuance in the urethra by the administration of large doses of opium, or if he even has fortitude sufficient to bear the pain without recourse to opium, yet the irritation will often be so great as to give rise to considerable constitutional derangement; and of so serious a nature, as to compel the discontinuance of the treatment. But even the free administration of opium will not invariably pro-

tect the patient from suffering under the most urgent local and general irritation. As an illustration of the evils resulting from this treatment, the following case is selected from my Infirmary Note-book:—

“ June 9, 1836.

“ James Derby applied. Says that on the 19th of August, 1835, as he was walking up Drury-lane, he fell with one leg through an aperture in the pavement, and the other bent under him. In the fall, he received a violent blow on the perinæum, which gave him intense pain at the time, but soon abated, and he was able to proceed on his walk. Some hour or so after, whilst proceeding up Tottenham-court-road, he felt a desire to empty the bladder; upon his attempting to do so, he found, to his great alarm, that he could not void a drop of urine, and he now discovered that considerable bleeding from the urethra had occurred. He went to the first medical gentleman's house he came to, and was recommended by its owner to apply at once to a neighbouring hospital; he did so; the house surgeon endeavoured, but in vain, to introduce a catheter. He was admitted an in-patient; ordered a warm-bath; and in the evening, leeches to the perinæum. On the 21st he urinated, but with great pain and difficulty. He continued to improve daily for a fortnight and was then discharged, voiding his urine freely, but *not so well as before* the accident. *No instru-*

ment or bougies were passed to ascertain the state of the urethra. He remained much the same for five or six weeks, at the expiration of this period he remarked that the stream of urine was gradually becoming less, and that he required to empty the bladder more often than formerly. About this time, meeting the house-surgeon of the hospital above alluded to, he informed him of the difficulty he felt in passing water. Mr. — recommended him to get admitted a patient again, when he would be cured in two weeks. A few weeks after this conversation, finding that the strictures were rapidly increasing, he applied at the hospital, and was again admitted an in-patient, under Mr. —, who introduced a small *silver catheter*, which he desired to be kept in *forty-eight hours*. During the time that the instrument remained in the urethra, a gradually increasing irritation was set up, and at the lapse of forty hours, great constitutional disturbance began to manifest itself: he was seized with violent and frequent rigors, which were quickly succeeded by a severe attack of fever. The catheter was withdrawn, *a larger one immediately passed*, but not allowed to remain. The severe fever and constitutional irritation induced by the retention of the catheter was such, that *for a month* nothing could be done for the strictures; at the expiration of that time, however, his health was in some degree restored, and the treatment was resumed by the occasional introduction of bougies, under which mode of treatment he was improving in

every respect, when unfortunately Mr. —, regardless of the previous disastrous effects, resulting from retaining the catheter in the bladder, ordered one to be passed, and kept in *forty-eight hours*. This was done, and with impunity. At the expiration of the allotted time, the catheter was withdrawn, and a larger one *immediately introduced*, and retained *twenty-four hours*. In a few hours after this he was attacked *as before* with fever, and for *three weeks* all treatment was again suspended. At the expiration of that period, his health having somewhat recovered, the treatment was again resumed by the occasional introduction of bougies (smaller than any that had been used formerly, the strictures having greatly increased during his illness); they were not however kept in longer than a few minutes; this treatment was pursued for two weeks, when a bougie (No. 5) could be passed. At the next operation, upon a larger one being passed than had ever before been introduced, he experienced great pain, from the force used in passing the instrument, and he fancied the urethra was injured by the violence. This occurring again at the next operation, and finding that the stream of urine did not improve (notwithstanding that a larger bougie was passed), and that his general health was also beginning to fail him, and in short that he was in every respect worse, after having been nearly four months in the hospital, he became alarmed as to the result, and despairing of a cure, left the hospital. After an interval of some time, he applied once more as an

out-patient; all attempts however to pass an instrument failed, and upon his return home, after an unsuccessful attempt, he was attacked with the rigors, which were followed by fever, and lasted thirty hours. These repeated failures caused him to resign himself to despair. Hearing however of this infirmary from a patient, who had been cured, a ray of hope once more beamed upon him, and he consequently applied.

“ Upon examination, I found a stricture six inches and a half from the external orifice, beyond which I could not pass the smallest bougie: the perinæum was much swollen and indurated; his urine passed from him involuntarily upon the slightest exertion, and he could only void it by drops; his health was evidently much injured by the severe sufferings he had endured.—June 10th. Felt no inconvenience from yesterday's examination; I applied the kali to the stricture.—June 13th. I was this morning called up to see a man, whom my servant informed me appeared to be in great pain; upon my seeing him, I found it was Derby, who had not been at the infirmary since the 10th. He told me, that after he left on that day, he had been attacked by the rigors, which continued to the 11th; on the morning of the 12th, he began to experience increased difficulty in passing water, and towards the middle of the day a total retention arose, which has continued ever since. I remonstrated with him for not having sent or come

to me before. He excused himself, by saying, that he did not like to take so great a liberty. He is now in great pain; the bladder is evidently much distended by the accumulated urine. After some little difficulty I introduced a catheter into the bladder, and drew off about four pints of urine. Aperients and opiates were then prescribed.—June 14th. He says he is much better.—June 15th. Says he has not voided his urine so well for months. I applied the kali, and admitted him as an in-patient.—June 17th. Felt yesterday a slight disposition to the rigors, but it went off, upon his going to bed, and getting warm. I applied the kali.—June 23rd. Has continued to improve since last report. I can now pass bougie No. 9.—June 24th. Applied the kali.—June 25th. Better; his general health is much improved.—June 27th. Passed No. 12. The indurations in the perinæum are nearly gone, and he urinates as well as at any period of his life.—July 1st. Discharged cured; he has got fat, and looks a different man.—Oct. 10. He was at the infirmary a few days since; he has continued perfectly well up to the present time, and expresses himself truly grateful for his cure.”

This case, whilst it in part shows some of the evils that arise from the retention of the catheter, also fully evinces the superiority of the mode of treatment I adopt with the kali. But there are other evil consequences attendant on the prolonged retention of the

catheter, which remain to be noticed. Thus the inflammation and irritation produced in the urethra is frequently extended to the cellular tissues around, and abscesses are formed in those parts, which prove a source of much suffering and anxiety to the patient. When this is not the case, there yet occurs, from the violence of the inflammation, induration of the urethral membranes and parts adjacent. So considerable is this, that in many cases I have seen I have been able with the finger to trace the thickened urethra in its whole course, from the extremity of the penis through the perinæum to the prostate gland.

From the preceding observations, it will be seen that I am no advocate for this mode of treatment, nevertheless there are undoubtedly some few cases in which this treatment becomes absolutely necessary, and many where, if judiciously employed in a modified form, it is highly beneficial. Amongst the former are those cases in which a false passage exists, and the instrument only been passed in the right direction after many failures. In such a case the advantage of having effected the introduction of a catheter in the right channel, and the probable enlargement of the passage by the retention of the catheter, justifies us in running some risk. The case of Sutherland will illustrate this.* Again, where fistula exists in connection with the

* See Case XXIII.

urethra, it is highly desirable to retain a catheter, as the passage of the urine through it prevents the escape of that fluid into the fistulous openings, and thereby increases the prospect of their healing. When, however, the retention of the catheter produces an abundant and acrimonious secretion from the urethra, it must be withdrawn, for such a discharge escaping into the fistulous openings would, in all likelihood, prevent their healing quite as much as the urine itself. Under such circumstances, it is best to pass the instrument when the patient desires to urinate. Amongst the latter, are cases of permanent stricture, accompanied by violent spasms. But that I may not extend these observations to too great a length, I shall refer the reader to the cases annexed, in which he will find examples of the efficacy of this mode of treatment in a modified form. I cannot, under any circumstances, recommend the retention of the catheters for the lengthened period that French surgeons advise their retention, namely, for many days, nay even weeks, without cessation; in my opinion, they should never be retained more than twenty-four hours at one time. When kept in longer, the most serious irritation is very frequently excited in the urethra, prostate, bladder, and contiguous parts; besides great constitutional disturbance.

OF THE TREATMENT BY CAUSTIC.

Caustic applications have been employed for the cure of strictures from time immemorial. Alberto Philippe, Arnatus Lusenatus, Alphonso Ferri, who flourished four centuries ago, used them with much success to destroy what they termed carnosities in the urethra. The caustic preparation they employed was, however, of too violent a nature, and their mode of applying it was no less objectionable. This want of judgment (from which charge our own time is not wholly free), had led to the almost total rejection of all caustic applications, until it was once more revived by the celebrated John Hunter. The first experiment he made was in the case of a chimney sweeper, which had resisted for six months all the ordinary means of treatment then in vogue. The caustic he first used was the red precipitate. Not finding this effectual, he tried the lunar caustic. From the works of Sir Everard Home on the treatment of stricture by the lunar caustic, we learn that this method got again into repute some forty years ago. Since then, however, it has again fallen into disrepute. But, whether the discredit into which it has fallen, both with the public and the profession be well merited, is a question which deserves the serious consideration of the practical surgeon.

Believing, as I do, that the most *speedy, effectual*, and *permanent* mode of curing strictures is to destroy them by the application of escharotics, I feel bound to state (although I do not use the lunar caustic myself, from a conviction that I have in the kali, a much better application), that, in my opinion, the evils said to have resulted from their use have been the effects, in a great majority of cases, either of the want of experience on the part of the surgeon, or of fool-hardiness and indiscretion in the employment of this powerful remedy. Who, that has ever read the cases published by Sir Everard Home in illustration of his treatment by the lunar caustic, has not shuddered at the cold-blooded indifference with which he treated the severe sufferings his mode of practice had caused, and at his persevering in it, notwithstanding those sufferings? If the patron (if I may so express myself) of this mode of treatment evinced so little discretion, are we to wonder that his disciples were at least equally indiscreet, or, that appalled at last by the consequences of their indiscretion, they discarded this mode of treating strictures, and fell back upon the old and inefficient treatment by the bougie, increasing by their denunciations the vulgar prejudices against a most valuable remedy, which their ignorance and rashness prevented them from appreciating all the value of? I repeat, that I can but attribute the disfavour into which the treatment by caustic has fallen more to a want of dexterity and

judgment in its application, than to the remedy itself. It must, however, be confessed, that the application of the lunar caustic not unfrequently produces, in spite of the utmost care, effects the most violent, such as retention of urine, but more commonly a profuse hemorrhage, and this to a most alarming and dangerous extent. I select the following case, as an example of this: *—

“The Hon. A. G. called to consult me respecting some very painful sensations which he felt through the whole organs of generation; they had troubled him more or less for the last three years; but what alarmed him most, was the debility they had produced, so much so, that he was nearly deprived of the *vis generatrix*. I asked him how he passed his urine? He replied, not very freely, and somewhat in a diminished stream to what he had formerly done. I told him I judged from the whole of his symptoms that he laboured under a strictured urethra. This he could hardly believe, having been cured of that complaint six years before, by Mr. (now Sir Everard) Home, who applied the lunar caustic several times. Upon the last application, when he broke through the stricture, a most alarming hemorrhage followed,—he lost nearly a chamber-pot full of blood, and it did not stop until he fell into a state of syncope. When he recovered,

* This case is taken from my late father's work *On the Treatment of Strictures with the Kali*.

he was removed in a sedan-chair, to his house in Berkeley-square, remaining very weak for some time, from the great loss of blood. Mr. Home recommended him to go into the country for a few months, to recover his impaired health and strength, which he did, and returned quite well. I told him I was certain he had a stricture, and proposed, if he had no objection, to pass a bougie, and ascertain the fact immediately. On passing the bougie about six inches down the urethra, it stopped, and the existence of a stricture was certain. He was greatly surprised, as Mr. Home had assured him he was perfectly cured. I recommended him to have it destroyed: he declared he would not suffer the pain, and risk the danger of another hemorrhage for the chance of a cure,—he would rather remain as he was. I assured him I would not use the lunar caustic, and that it was not likely he would experience any hemorrhage. He, however, declined placing himself immediately under my care. Two months afterwards he requested me, by letter, to describe the caustic Mr. Home had used, and the remedy I proposed; which I did. He wrote me that he should be in town on a particular day, and requested I would be with him by nine o'clock in the morning. I attended at the appointed time. He was very much surprised at the slight pain, compared with what he had suffered from the lunar caustic. Not a drop of blood was lost by the operation. After three

applications, the stricture was removed, and I was able to pass a metallic bougie (size No. 12) into the bladder. He continued to pass the bougie daily. In three weeks he was cured without the least hemorrhage, not a single unfavourable symptom occurring. He went with his family to Brighton for a month; and on his return called on me to say, that by the tonic remedies I had prescribed, the debility he had before suffered was completely cured; and he was happy to add, that he enjoyed more health and strength than for several years previous. About three years after this, I received from him the following letter:

“ ‘ May 28, 1810.

“ ‘ A. G. feels great pleasure in communicating to Dr. C. the perfect re-establishment of his health in consequence of his mild and admirable treatment of strictures in the urethra. He may add, that he has not for many years enjoyed so much comfort and freedom from pain; and he entertains no doubt of his having obtained, through his skill and attention, a perfect and radical cure of that horrid complaint. As he was not a stranger to the manner in which others treated the complaint, he has it in his power, from a fair trial and a just comparison, to pay that tribute of applause to Dr. C. which he sensibly feels and shall be most ready and willing to acknowledge.’ ”

OF THE TREATMENT WITH CUTTING INSTRUMENTS.

Having considered the treatment of stricture by the method of dilatation with bougies, by the retention of catheters, and the application of the lunar caustic, I should willingly pass on to notice the treatment by the kali, and then, after illustrating its superiority, by the recital of some cases, take my leave of the reader. But were I to adopt this course, I should feel myself guilty of a most culpable omission, for I should thereby neglect to notice and caution the reader against a mode of treatment which, to the disgrace of modern surgery, has been partially revived. I allude to the employment of cutting instruments, for the removal of strictures by incision or division. For the revival of this dangerous practice, the profession and public have mainly to thank Mr. Stafford—at least, that gentleman appears foremost amongst the select few who have the temerity to advocate and practise it. Hence it becomes necessary to notice Mr. Stafford's work on strictures, wherein it is attempted to be shown that this mode of treatment is both a new and safe method of cure, the more especially, as I have reason to believe that the representations made in that work, respecting both the novelty of the method, and above all, its safety and efficacy, are too unqualified.

In the preface to the third edition of Mr. Stafford's work, will be found the following remarks:—
 “On a third edition of this work being called for, it is most satisfactory to me, as the author of a *new* and apparently difficult mode of treatment, to be enabled to add conclusive proofs, not only of its efficacy and safety, but of the rapidity and permanency of the cure.”

Any person reading the foregoing remarks, would naturally conclude that, until the appearance of this gentleman's work, the treatment by incision or division was never heard of, and that to him belonged the credit, if any, of the invention. Nothing, however, could be more erroneous than such an impression, as it is a fact, well known to all those who have made stricture their study, that Mr. Stafford's sole claim to originality rests upon his having ventured to revive a long exploded mode of treatment. This barbarous method was employed three centuries before by De Vega and Diaz,* and was used in France at the commencement of the seventeenth century, by Mayerne, after which it fell into disuse, although some attempts were subsequently made to bring it again into vogue. Doerner introduced some years since an improved instrument, as he termed it, for the

* See *Phillips on the Urethra*. This gentleman has himself invented a different cutting instrument, which he recommends instead of those hitherto used; but if not worse it is, in my opinion, not less dangerous.

division of stricture, but it was a complete failure. Since then one or two more attempts were made, although with like success. Many years ago, Sir Charles Blicke, of St. Bartholomew's Hospital, and Mr. Nayler, of Gloucester, employed a lancetted catheter for the division of strictures. The latter gentleman relinquished the practice, in consequence of the alarming hemorrhage which arose. With respect to the results met with by the former gentleman I can say nothing, but as it certainly again fell into disuse, I think I may justly infer that they were far from satisfactory. This method was also, forty years ago, tried by Mr. Grindel, of the London Hospital, and failed.

Now Mr. Stafford is not satisfied to tread in these gentlemen's footsteps, but claims the merit of being the inventor of this mode of treatment, whilst his instruments are nearly the same as those used by Doerner. Having thus disposed of Mr. Stafford's assumed right to call himself the author of what he is pleased to term "*a new and apparently* difficult operation," (difficult indeed!) I shall now proceed to the consideration of a far more important part of the subject, viz., the grounds on which it is attempted to establish the safety and efficacy of the operation itself. With this view, I shall quote here another passage of Mr. Stafford's preface to the last edition of his work:—
 "I may state confidently (says this gentleman) that *since* my invention of the instrument, I have not yet had,

in *my own practice, one unsuccessful case*, and that *no mischief has arisen from the operation*. In *no instance has a false passage been made*, nor have *extravasation of urine, hemorrhage, or any other bad symptom* ensued.* Such are the assertions made in the third edition of the work. Now, if my memory do not fail me (I cannot put my hand on the work at this moment), it was made a subject of boast in the first edition of this work, that out of twelve cases the author had made *only one false passage*. One in twelve! I am also in possession of other evidence, besides Mr. Stafford's own admission, to prove that the mode of treatment is both dangerous and inefficient; I therefore read, with no little astonishment (to use the mildest possible term), his unqualified praise of this "novel and difficult" mode of treating stricture. But my astonishment did not rest here; upon perusal of the cases said to be successfully treated, I met with the following:—

"CASE 8th,—Stricture, four inches from the orifice, causing retention of urine, perforated, and another stricture in the membranous portion, not perforated.

"September 22, 1829.

"Patrick Shannon, aged 38, was admitted into St. Mary-le-bone Infirmary, with retention of urine, which he had laboured under for twelve hours.

* I have marked in italics the assertions I wish to impress on the reader.

When all the means usually employed in that disease had been resorted to, and when twenty-six hours had elapsed, it occurred to me to try the following plan for his relief, and it was attended with complete success. I introduced into the urethra, as far as I could, to the distance of nearly three inches, a tube with a circular eminence upon it, about an inch from its extremity, attached to a syringe; I then passed a ligature round the penis, and tied it firmly in, by which means I was enabled to exhaust the small quantity of air which was in the anterior part of the urethra. The patient was then desired to attempt to make water; in about half a minute a teaspoonful of urine oozed through the stricture, which was four inches from the orifice; in another minute there was collected in the syringe a dessert spoonful; in the next attempt the syringe was completely full, and in this manner nearly two pints of urine were drawn from the bladder. I mention this fact more particularly, as it appears to me that this method might be pursued as an auxiliary to the means usually resorted to in cases of retention of urine from stricture. On the following day I introduced the single stilette, and perforated the obstruction; I could not, however, pass a bougie completely into the bladder, as another stricture was present in the membranous part of the urethra; he was ordered to apply leeches, fomentations, &c. In four or five days he began to make water in a tolerably sized stream. Bougies were now passed for

him about twice a week ; but as he suffered greatly from their introduction, and as the stream of urine improved in size so much as to be nearly as large as natural, I discontinued their use. I have seen him a few times since this period ; he always tells me that he continues well, and makes water as freely as ever he did in his life. He has become quite fat, and is enabled to follow his business."

Now in my Note-book of cases I find one of a patient who applied at the Infirmary for the Cure of Strictures, to which I was surgeon, that in some respects resemble this. Here it briefly is:—

"September 1st, 1836.

"Peter Shannon applied to be admitted an out-patient. He states that he has laboured under stricture of the urethra for six-and-twenty years. Many years since he was under the care of Mr. Crampton, of Dublin, and afterwards under the care of some other gentleman of that city. He was at that time treated with the common bougie, and got better. Some little time after he accompanied the gentleman with whom he was living as groom to Cambridge. The symptoms of his old malady recurring, he applied to a surgeon who passed a bougie, but he used so much force in doing it, and there was such a profuse bleeding afterwards, that his master desired him not to go again. In consequence of this, he for some

years totally neglected himself, although his stricture had become so bad that he could only void his urine guttatim. He was at this time a groom in the establishment of his late Royal Highness the Duke of York. He applied at St. George's Hospital, and was admitted as an out-patient, under Mr. Keate. At first it was impossible to pass a bougie, but after six months' attendance, a bougie, about size No. 5, could be passed. He complains bitterly of the sufferings he endured from the pupils trying to pass instruments. This will at the same time account for so little progress being made during the six months. The Duke of York dying, he became a messenger at Crockford's Club-house. The duties of his situation prevented his attending to himself, and he appears consequently to have relapsed. He goes on to state that in 1829, he was living at Windsor with Colonel White, of the Life Guards, that he was seized with a retention of urine, and applied to one of the surgeons of that regiment, who, after having vainly tried to introduce a catheter, recommended him to start for London immediately. He did so, and upon his arrival in town he applied at the St. Mary-le-bone Infirmary, into which he was at once admitted. By some accident Mr. Stafford saw him. This gentleman was not at that time the surgeon to the infirmary. Shannon's account then continues to resemble Mr. Stafford's, as far as acts are concerned, but the results are widely different. For Shannon says he expe-

rienced *intense pain* from Mr. Stafford's operation, which also caused a *profuse bleeding*, and that finally a considerable abscess formed in the perinæum, and laid the foundation of the fistulous opening under which he now labours. In short, he was much worse when he left the infirmary than he had ever previously been. I do not mean as regards his power of urinating, but as relates to the abscess in the perinæum, and the consequences it entailed upon him. He now left the infirmary, and as soon as his general health was a little recovered he obtained a situation as groom. He was able for six months to keep his situation, notwithstanding that he was constantly tormented by small abscesses continuing to burst, then heal, and again form. At length, in consequence of the formation in the perinæum of a very large abscess, he was compelled to go into Middlesex Hospital. Eight days after his admission this abscess was opened, as also another that had formed nearer the rectum. The urine was voided through the openings. Another tumour besides these appeared, and in two days was opened. Urine escaped by it. Thus his urine escaped through three fistulous openings. Some attempts were made by a pupil or dresser to pass a bougie, but without success. Shannon says a false passage was made. Sir Charles Bell now saw him, and after two attempts on different days succeeded in passing a bougie, which after remaining an hour was withdrawn, and

an exceedingly small catheter passed. This was kept in twenty-one days. Sir Charles Bell saw him again, and was displeased that the catheter had been allowed to remain in so long. He withdrew it, and passed a larger, which was retained three days. The water now passed freely by the urethra. For some period no instruments were passed. But poultices were applied to the fistulous openings. He was finally discharged after being in the hospital in all eight months. From that time, to his applying to me, he appears to have been at one time better, at another worse. The abscesses continuing to heal, and then form again and burst, and the strictures to gradually return. Upon examining him, I found the marks of three abscesses. I could pass a small bougie. In the course of a fortnight I could introduce a large catheter, and began to hope I should cure him; but in this I was disappointed, for the abscesses again appeared. This he told me was invariably the case, and thus had failed all attempts to cure him. I now proposed that he should come into the infirmary, as it was my intention to lay entirely open any abscess that might form. But he would not consent, and left altogether. I hear that he is since dead.'

From this case we at any rate learn, notwithstanding Mr. Stafford's assertions, that "*in no instance has a false passage been made, nor has*

extravasation of urine, hemorrhage, or any other bad symptom ensued," that the most painful and fatal results have attended the operation—even when performed by one who appears to have made himself many opportunities of acquiring, by its repeated performance, expertness in the use of the necessary instruments. But the plain fact is, that no manual dexterity, or any anatomical or surgical knowledge, however extensive, can guard against the inherent dangers ever attendant on the employment of cutting instruments, of any kind, for the purpose of dividing strictures in the urethra.

I have now shown that Mr. Stafford's claim of novelty, in his treatment, rests solely upon his having dressed up an old, dangerous and exploded idea, with some new or altered instruments. I have also adduced a case, which, if Shannon is worthy of credence, and I see no reason to doubt him, goes to the complete refutation of some of Mr. Stafford's assertions; and consequently must create great doubts as to the correctness of all. Thus the case of Patrick Shannon, as related by Mr. Stafford, and that of Peter Shannon, as stated by myself, strongly resemble each other in some respects. But whether Patrick Shannon and Peter Shannon are one and the same person, is a question I have no means of answering. At all events, it is from this case certain, that the operation is not so invariably successful as Mr. Stafford's assertions would lead us to believe,

and unless I am greatly misinformed, many deplorable cases might be adduced confirmatory of this, not only from Mr. Stafford's practice, but also from that of others, who have ventured to adopt this "novel and bold treatment." I therefore feel no hesitation in most strongly recommending my medical readers not to attempt, under any circumstances, to perform the operation in question. To the public I would say, cut your surgeon as soon as he ventures to propose to cut you. To Mr. Stafford, I would suggest the propriety of his discontinuing a mode of treatment, that I cannot but think he has occasionally found to lead to the formation of a false passage, to cause extravasation of urine, hemorrhage, and other bad consequences. For he may rest assured, that although a few fortunate cases may occur, and no doubt have occurred, yet this of itself would afford no valid reason, and certainly offer no justification, for the wholesale performance of a dangerous operation, which in nine hundred and ninety-nine cases out of a thousand, will be found to be unnecessary.

Thus much, notice and refutation, I feel myself compelled to give to Mr. Stafford's assertions, because throughout the work in which they appear, there prevails such a strong and indiscriminate advocacy of this dangerous method of treatment, that it cannot fail to mislead the credulous or inexperienced reader, the more especially supported as it is by numerous apparently successful cases.

But now we will consider the treatment apart from the correctness or incorrectness of Mr. Stafford's statements.

First, then, let us enquire how far this mode of treatment is applicable to permeable strictures; yes, strange as it may appear, the advocates of this method of treatment even go so far as to recommend it in cases that admit of the passage of a bougie! Now if my reader will only go to an instrument-maker, and look at these instruments, he will more readily appreciate the dangers as well as absurdity of this mode of treatment. The employers of these instruments admit, by the very precautions they take, that there is a liability of making a false passage with them, for in the permeable stricture they attempt to guard against this, by the introduction of a wire through the stricture into the bladder, and along this wire they then pass their cutting instrument. Here is a description of this part of the operation.

"In the armed catheter, which is intended to divide strictures over the wire which serves as a guide, the wire must be introduced through the stricture first. The mode of accomplishing this is, by passing the smallest possible sized catheter, made to contain the wire, into the bladder. The wire, which is double the length of the catheter, and blunted at one end, so that it may not injure the bladder, is then pushed forward, and the catheter gradually withdrawn, by which the former is left in

the canal of the urethra. The armed catheter is then passed over the wire, until its point rests against the stricture (which is known by the means of the graduation), and being held securely in such position, the handle of the stilette is pressed gently and gradually. As soon as any impression is made, the lancets should be allowed to retire into their sheaths, and the blunt point of the instrument urged forwards." Now if any person will look at the wire, which is to serve as a director to the cutting instrument, he will at once see that it is of so pliable a nature, as to be totally unfit for the purpose. But even supposing it to be of sufficient firmness to direct the instrument onwards in the right course, is all the danger avoided? The instrument may advance in the right course, but may it not, not merely divide the stricture, but also the urethral membrane? For what means are provided, indeed can be provided, to ascertain the exact thickness of the stricture? Again, most strictures occupy the inferior surface of the urethra, but with the instruments in question, the incision is made both on the inferior and superior surface of the canal.* Further, the incision is so fine, that the enlargement of the passage from it can scarcely be of any utility; besides the division of the stricture, or indurated part of the urethra, does not remove it. But we will resume our quotations. We left off with the direction that the blunt point of the instru-

* I find that there are lateral cutting instruments employed by Mr Stafford, therefore, to a certain extent, this objection is removed.

ment was to be urged forward after the first incision. The directions then go on as follows:—"If it do not pass on, the lancets may be again used as before." Again I pause to ask how the operator can insure that his second incision, after the instrument has been moved about to urge it forward, shall commence just where he left off his first, and if this cannot be insured (which I think it cannot), will he not convert a smooth and uniform contraction into a jagged and irregular one? The instructions continue. "After the stricture is divided, the armed catheter should be withdrawn, and its place supplied by one of elastic gum of the same size. This should remain for a day or two to prevent the re-union of the divided parts, and to preclude the possibility of extravasation of urine" (so it appears that precautions are necessary to prevent extravasation following the operation); and on its removal, a bougie should be passed twice in the week, or as often as may be judged necessary, for some time; and the same treatment adopted as for strictures in general." Such are the directions for the performance of this operation. As I have made some remarks on them as I proceeded, I have only to beg the reader to notice, that after the incision, a catheter must be retained "for a day or two," and then the treatment resolves itself into such as is adopted for stricture in general; that is, I presume, the introduction of bougies according to the plan of dilatation.

Now I would ask what necessity is there to employ a cutting instrument in such a case, as from the directions, this appears to be? A catheter can be introduced into the bladder, and being there, would it not strike a practical man that it would be much better to leave it in for a day or two (trusting to its dilating the stricture), than to withdraw it and employ so dangerous an instrument as the lancetted catheter for the enlargement of the passage, the more especially, as after running all the risk of using this instrument, he would still be obliged to retain a catheter for a day or two. But to say the truth, I fancy it is the retention of the catheter for "a day or two" that in reality enlarges the passage, and the introduction of the bougies afterwards, as "adapted for stricture in general," that completes the dilatation. From this source flows the good—from the lancetted catheter the evils that have sometimes occurred.

With regard to the employment of this instrument in strictures that are not permeable, it is only necessary to remark, that the risk of bad consequences are much increased. For in them we lose the advantage, slight though it be, which the introduction of the wire might afford. Indeed the advocates of this mode of treatment admit, that in cases of this kind there is some danger, that in "unskilful hands, or by violent means, a false passage may be formed." But I think the reader, after what has been stated above, will rather incline

to my opinion, that no skill can render the operation a safe one. In this conviction, I can only in conclusion express my sincere hope, that this "novel and bold method of treatment" will ere long again sink into the merited obscurity from which it has been so unfortunately dragged.

OF THE TREATMENT OF STRICTURE BY THE KALI.

Mr. Whately was the first who used the kali in the treatment of stricture. He found it to be at once a milder and more powerful agent in the removal of stricture, than the lunar caustic used by Sir E. Home and others. Speaking of the kali, Mr. Whately says, "this valuable remedy, if used with care, will be found of singular efficacy in removing the complaint (stricture). I have already had so much experience of it, and am so perfectly convinced of its superiority over the lunar caustic, as well as over the common bougie, that I now use it in a considerable number of cases that come under my care. Of its safety I am as well convinced as of its efficacy ; for, if used with circumspection, experience shows there is little danger of its producing any disagreeable effect." To the truth of this assertion, from my own experience, I can with confidence bear witness. After showing the cases in which this valuable remedy may be applied, Mr. Whately pro-

ceeds to explain the mode of its action on the disease. The following are the remarks and explanations he offers on this subject, he says, "I shall next show in what manner the kali purum acts upon strictures, and thence endeavour to explain how this remedy, powerful as it is, may be applied with safety to the urethra. From considering how extremely active this caustic is, when applied in the usual way to any part of the body, we might be led to conclude that it would be almost impossible to convert it into a mild and safe remedy to a part so tender as the urethra. When, however, we reflect that there is no substance either of the most caustic or poisonous nature, but may be converted into a medicine as safe as any in common use, so as even to be applied to the coats of the stomach without injuring them, it ought not to be deemed an extraordinary assertion to declare, that one of the most active substances of the former description may be employed on the tender surface of the urethra with the utmost safety."

"Before the kali can be safely taken into the stomach, its caustic properties must be entirely destroyed by dilution; but, under proper management, it may be applied to the urethra, even as a caustic without producing a slough, as it commonly does when applied in the usual method. By the method of applying it employed by myself, the kali is equally diffused over every part of the urethral surface, and only abrades the membrane of the

stricture, *without* producing a *slough*. The degree of this abrasion is entirely under the control of the operator; by a little attention to the quantity of caustic employed, it may be increased or lessened at each application, as circumstances dictate. In this operation a slimy substance is formed, compounded probably of the abraded matter of the stricture and the oil and lard used in the operation, combined with kali. In this manner the kali penetrates and dissolves the hard and diseased parts, with a facility which no other remedy that can be safely applied will. That this is the mode of its action, when applied in a proper manner, I am convinced from ocular demonstration; for, in applying it to a stricture near the orifice of the urethra, I have had frequent opportunities of remarking the degree of abrasion it produced without occasioning slough, together with the formation of the saponaceous slime I have mentioned, that such cases have likewise afforded the pleasure of seeing the immediate success which attends the kali purum, when used for the purpose of opening a stricture. In many instances where the contraction was so great as scarcely to suffer even a small bougie to pass, a much larger one has been readily admitted, immediately after the caustic has been applied. In the same manner it must undoubtedly act in strictures situated out of sight; and as a proof of this, I have almost uniformly found, on applying this caustic to a stricture in any part of the

urethra, that the passage had soon been widened, and in most cases even before the bougie has been withdrawn from the urethra. The kali purum, from its property of combining with oily substances and animal mucilages and forming soap, acts in a manner totally different from the lunar caustic, to which it is decidedly superior, for the following reasons: it acts more powerfully on the stricture; gives less pain to the patient, especially after the first momentary effects are over; is more capable of having its action confined to the contracted part; and irritates less after it has been applied. Of the superiority of the kali over the lunar caustic I speak with confidence, from experiments repeatedly made with both these articles.

“Among these advantages, there is one resulting from its chemical properties, which deserves a more particular consideration. By its quality of combining with the substance of the strictured surface into a soap, we have the power of confining its action entirely to the part to which it is applied; for the soap, so formed, is so perfectly smooth and mild, as to be incapable of stimulating the membrane of the urethra. The chemical composition of the lunar caustic is totally different, and on this account, though its chief strength may be expended on the disease, yet as it does not form a soap on being dissolved, but on the contrary liquifies, and forms a caustic watery solution, which by the natural action of the

urethra flows in a very short time to its external orifice, the whole urethra is stimulated, and more or less injured from the strictured part to its external orifice. In proof of the truth of these observations, I have repeatedly seen the inner membrane of the urethra, just within its external orifice, perfectly white and sloughy after the application of this caustic to a stricture at the bulb. A circumstance which would not have happened, had not the whole membrane, anterior to the stricture, been affected in a similar way; so in its application to external sores, we find the same disposition in this caustic to liquify and flow to the surrounding parts, when it meets with moisture enough to produce this effect. The kali purum, by not commonly producing a slough of any size or firmness, possesses another advantage over the lunar caustic; the sloughs occasioned by which, when separated, not unfrequently plug up the strictured orifice, and thereby produce a temporary retention of urine. Mr. Home notices the same effect, and relates one case in particular, in which the slough was an inch in length.

“The great activity of this remedy is another of its decided advantages; as the bulk of the requisite quantity is so small, as to be contained within the confined holes made for its reception in the point of the bougie. By thus conveying the caustic within the bougie, the urethra is more completely defended from its action, in its passage to a stricture, than by

any method hitherto adopted for conveying the lunar caustic to the part. By this method of arming a bougie with the kali purum, the caustic is as it were inclosed in a sheath, and thus is gradually dissolved, and regularly diffused over the strictured surface. The hole likewise into which the caustic is inserted may be more or less contracted, previous to the introduction of the bougie, so as to suit different cases and different degrees of stricture. This is useful also in those cases where a difficulty arises in passing a bougie through a stricture, after it has proceeded so far as to reach the contraction. All that I have hitherto advanced in recommendation of the kali purum refers to such cases only as admit a bougie to be passed with more or less facility *through* the stricture. I shall next enquire how far this caustic may be applied to strictures impervious to a bougie, even of the smallest size. Whoever is acquainted with the nature of the slough produced by this caustic, and the enlargement of a sore during its separation, when applied to any of the external parts of the body, must understand that much caution will be required in applying it, where it is intended to act on one particular part of the urethra only. The extraordinary activity of this remedy, however, has its peculiar advantages ; and I am persuaded, that in some of the worst of these cases it will be found to perform, if used with discretion and judgment, what the lunar caustic cannot effect."

Such is the high testimony given in favor of the kali by Mr. Whately, whose experience and great success in this interesting branch of surgery entitle his opinions to the greatest respect. So strongly had prejudice, in the early part of my professional career, taken possession of my mind against the application of any caustic in the treatment of stricture, that even after I had read Mr. Whately's work, I confess I looked with feelings of horror at all applications of the kind. At the same time I was fully aware that the method of treatment by the common bougie was in many instances unsuccessful, and afforded but a temporary relief at best. Yet so deeply rooted, I repeat, were the prejudices I had imbibed during the time I had been "walking the hospitals," and during a residence of some years in different parts of the country, where I had opportunities of witnessing every form and variety of disease which "flesh is heir to," that upon my return to the metropolis to assist my father, I was amongst the most determined opponents to the treatment by any kind of caustic. However, I began in a very short period to suspect that the notions which had been instilled into me on this subject were of a very loose texture indeed, the results of mere theory, which reflection, aided by experience, taught me to reject. What was suspicion at first became at length certainty, from the great variety and number of cases which I saw every day yielding rapidly to this mode of treatment

under my father's care, without producing any of those violent symptoms I had been taught to expect, and this too after the most eminent members of the profession had failed to relieve the sufferings of the patients. With these facts staring me, if I may use the expression, in the face, it required at best no great effort on my part to emancipate myself wholly from the thralldom of prejudice under which I had laboured,* and to this I ascribe the great success I have met with in my treatment of some of the most inveterate cases, after all other means, adopted too by some of the most eminent surgeons of the day, had failed in effecting a cure. I say this, without meaning in the remotest degree to detract from their well earned

* As an illustration of the timidity shewn by some of the profession, in opposing the prejudices existing both amongst medical men and the public, against the use of caustic preparations, I shall quote here a passage from the published lectures of an "hospital surgeon." This gentleman writes, "I honestly confess I dare not say to a stranger, whatever his case may be, and however useful a few applications of the *argentum nitratum* might be, that I mean to use it. I dare not do so until after a few visits, and we become better acquainted and have more confidence in each other, perhaps only after he sees that he does not make much progress. I should lose my patient if I did, who would go to another, and might be told he had narrowly escaped the worst treatment in the world; an opinion he would not fail to repeat. Such is the prejudice against it among the younger men in London, that when a man says he has been cured by it, the remark is, how lucky you were to escape; I would not suffer any doctor to burn me for all the world. Nevertheless, the *argentum nitratum* is a valuable remedy, when properly and carefully used in appropriate cases, and not abused."

reputation, and with the sole view of illustrating the safety and efficacy of the mode of treatment by the kali, against which so much ill-founded prejudice still exists in the minds of many of the profession, and which, I am well convinced, is more the result of speculative theories than of practical inductions. In support of the treatment by the kali, I cannot adduce any thing more likely to make an impression on the mind of the reader, than the following opinion delivered by Mr. Abernethy on the subject. "The practice (he observes) has proved very successful in Mr. Whately's hands and with others, and I deem it a very rational method of curing those strictures that you cannot remove by milder measures." Further on, in noticing a "flippant reviewer," who speaking of Mr. Whately's work said, "that it was left for Mr. Whately to discover a method for the cure of strictures and for the manufacture of soap," Mr. Abernethy observes, the truth is that potash does combine with the lard and mucus of the urethra and form a kind of soap, which modifies the action of the caustic and has a very good effect." Observing, in another place, on the comparative merits of the lunar caustic and the kali, "I have," says Mr. Abernethy, "used the argentum nitratum, and found it answer very well, but upon the whole I prefer the kali; I think it *a safer thing to use.*" Such are the recorded opinions of one of the brightest ornaments of modern surgery, and who to the highest

skill united the greatest caution, and who was the very last man to recommend any mode of treatment in preference to another, without having previously well considered the subject and assured himself by that process of reasoning familiar to minds of his stamp, not only of its safety, but of its superior efficacy.

The importance I attach to the opinions expressed by Mr. Abernethy on this subject cannot surprise any one who has perused his lectures on the treatment of stricture, and observed how strongly he expresses himself every where against any violent mode of treating the disease. Having, as I hope, adduced sufficient evidence from the talented authors I have quoted, in favour of the treatment by the kali, or at least sufficient to induce the profession to extend their enquiries on this head, I shall now proceed to make some practical remarks on its application in the different kinds of stricture.

ON THE APPLICATION OF THE KALI.

It is desirable, before a caustic of any kind be applied to a stricture, that a bougie of at least a size larger than the smallest be passed two or three times into the bladder, in order to have it in our power to relieve a retention of urine, should the latter arise. Fortunately this operation can be effected in most

cases. Should the stricture, however, remain imperious to the bougie after repeated well directed efforts to overcome the obstacle, we may then apply the kali, but, let me add, with greater caution than when an instrument can be passed. Before applying the kali, we introduce a soft wax bougie down to and, if possible, through the stricture, marking its distance from the external orifice by a notch on the bougie. We then allow it to remain, provided no pain be produced by its presence, for the space of five or ten minutes. Upon withdrawing it, we shall have, if it has passed through the stricture, an exact cast of the latter, thus obtaining a very correct notion of the extent, shape and situation of the disease. Should it not, however, have passed through, we shall still have acquired some very valuable information, as we shall have ascertained from the impression on the point of the instrument, the direction in which the opening through the stricture is situated. By this means we shall be enabled to direct the point of the bougie, upon its next introduction, towards the situation of the aperture. For instance, after having in vain endeavoured to pass a bougie of any description, I have, after taking the impression, not unfrequently succeeded. I recollect a case in point, that of a man labouring under severe strictures, who had been eighteen months at a dispensary, and six months at one of the metropolitan hospitals, without a bougie having ever passed beyond the stricture. He was at length told, that

the only means which remained for affording him relief was an operation for the division of the stricture. This he would not consent to, and in consequence applied to me. I succeeded, after having taken an impression, in passing a bougie into the bladder of this man, although I had previously made, in the course of three or four days, several ineffectual attempts to pass it.

Having obtained, as above stated, the requisite information, we proceed to arm the bougie with the kali, covering its points with lard, and pass it down to the stricture. When it reaches the obstruction, it should be allowed to remain a few moments, to give the lard time to melt and spread over the surrounding surfaces. The bougie is then to be passed, slowly backwards and forwards over the strictured portion, until a sensation of *heat* be produced, when it must be immediately withdrawn, as it should not (at any rate on the first application) be allowed to remain long enough to *cause a burning* sensation. However, in very old and obstinate cases, when the strictures are firm and cartilaginous, the kali may be used with much greater freedom than in the more recent cases. After this, the patient must be directed to avoid all stimulants, to attend to the regularity of his body, and sponge the perinæum frequently with warm water. Should no irritation result from the operation, it may be repeated in two or three days. However, the intervals that should elapse between the application is a

question that can only be determined by the circumstances of each case and the experience of the surgeon.

Such are briefly the general directions by which we should be guided in the employment of this powerful and most valuable remedy. The numerous cases, which will be found annexed, will illustrate the modifications necessary to be observed in the treatment of the varieties of stricture. I shall, therefore, not enter here into further details, though a few general remarks on the treatment of spasmodic and permanent stricture by the kali may not be misplaced.

OF THE TREATMENT OF SPASMODIC STRICTURE BY THE KALI.

I have already stated spasmodic stricture to be an inflammation of one or more portions of the urethra, and that, in most cases, the inflammation is not acute, but of a chronic form. This renders the urinary canal morbidly sensible to the stimulus of the urine, and produces that species of obstruction to the passage of the water which is termed spasmodic stricture. The indications of cure are therefore at once obvious, namely, the removal of the morbid susceptibility of the urethra. In the treatment of morbidly sensible surfaces, it is found, that by the application of caustic (short, however, of the total destruction of

the parts), the irritability is removed, and a healthy action excited. In chronic inflammation of the eye, solutions of caustic are found to be highly beneficial, producing considerable pain at first, but when the stimulus has subsided, the eye feels more comfortable than it did before. It is the same with the urethra when the kali is applied, it immediately producing an increased action, and for a very brief space aggravating the symptoms, but upon the increased action subsiding, the patient, in voiding his urine, is agreeably surprised at the diminished susceptibility of the urethra to pain.

That such is the effect of the application of the caustic to a too susceptible surface, I believe few will deny. Even those who are opposed to the treatment of stricture by the caustic, are compelled to admit, that the lunar caustic, when applied to an irritable spasmodic stricture, produces the most beneficial effects; but then they urge, and I think justly against the employment of that preparation, the difficulty, amounting nearly to an impossibility, of regulating its action so as to prevent it from destroying the vitality of the part to which it is applied. Besides, from its forming a stimulating watery solution, as has been before observed, the lunar caustic affects the whole of the urethra, anterior to the stricture. It is greatly inferior, therefore, to the kali, which, from its properties of commixing with the lard and the mucous secretion of the urethra, enables us to modify its

action to any extent we may deem necessary—from the most powerful caustic to the mildest stimulant. When the spasmodic affection is not accompanied by any violent inflammation, some surgeons recommend in that case a bougie to be passed once or twice a week into the bladder, in order to overcome the undue sensibility of the urethra by the mechanical stimulus of the bougie. For my own part, I prefer the kali, because, in the first place, it can be applied more directly to the seat of the disease, and the stimulus be increased or diminished *ad libitum*; and secondly, because the instrument need not be passed beyond the seat of the disease, in consequence of which the irritation, so often induced at the portion of the urethra situated beyond the stricture and extending to the bladder, is avoided, and the risk of producing inflammation at the neck of that organ (which is frequently the case) prevented.

In speaking of spasmodic stricture, I have hitherto confined my remarks to what may be termed the *operating* part of the treatment. I now approach a no less important part of the subject, namely, its constitutional treatment; and this is the only species of stricture to which medicine can be applied with any hope of durable success. When once a permanent stricture is formed, we can derive from medicinal means no other assistance but that which they supply towards diminishing irritation. I am fully aware that the contrary doctrine is espoused by some

few of the profession, but I also suspect that in doing so their motives would not bear enquiry, and that they merely accommodate themselves to the strong dislike which all feel, at first, to submit to any sort of operation, thus consulting their own petty and sordid interests, without the least regard to the sufferings they may eventually entail on their dupes. I have the concurrent testimony of all the eminent and respectable gentlemen of the profession, to show that what is said about the efficacy of internal medicines in the treatment of permanent stricture, is absolutely nothing more than a gross attempt upon the credulity and pockets of the public. But in the treatment of spasmodic stricture, the medical branch of it is fully as important as the surgical; and if we were to disregard it, all our efforts to procure relief would be ineffectual. The failure would be the same, were the local treatment ever so well directed; and, therefore, as long as there is any constitutional derangement, it behoves us to employ appropriate means for its removal. In cases of spasmodic stricture, to thrust hastily an instrument into the bladder is sure in almost every case to aggravate the symptoms, by most probably superadding to them a retention of urine. It becomes, therefore, necessary to enquire into the state of the patient's stomach and bowels, and if they be out of order, to regulate them. Until we have done this, it would be folly, or worse, to proceed in the treatment. With

respect to the essential article of diet, it should be as simple as possible, and I would strictly enjoin the patient to abstain from all seasoned dishes, from wine, fermented liquors, and above all spirits. The blandest fluids, such as barley water with gum, or linseed tea, the effects of which may be increased by an addition of alkalines, should be alone taken; and when the inflammatory symptoms continue urgent, it is necessary, in addition to the means just mentioned, to adopt external topical treatment, such as the abstraction of blood from the perinæum, either by leeches or cupping. In the treatment of elderly persons, I prefer the use of leeches, as I have sometimes found that abscesses in the perinæum have been induced, after repeated cuppings, in persons advanced in life. For the young I give the preference to cupping, as being at once the most expeditious and convenient. As soon as we have in this manner removed the acuteness of the inflammation and all exciting causes, and there remains only irritation or undue sensibility of the membrane of the urethra, we may then apply the kali, and I have frequently, by two or three applications of this remedy, removed spasmodic strictures, which had for months baffled all other modes of treatment.

OF THE TREATMENT OF PERMANENT STRICTURE BY
THE KALI.

I have already described the various modes adopted for the cure or relief of this prevalent and dreadful malady, and have also noticed the *novel* method recommended by Mr. Stafford. To all of them I have endeavoured to state fairly and candidly my objections, founded as they are on experience, and some of which are admitted by the profession, though in their treatment of the disease they still retain those modes. I shall now proceed, without further interruption, to state my own method of treating permanent stricture, though I may as well remark here, that out of the hundreds of cases on which I have been consulted, I do not recollect half a dozen of them that had not been, for periods varying from a few months to several years, under the care of other professional gentlemen, some of them the most eminent of the day, and who had failed (solely from their adherence to a bad system) to afford the desired relief.

When consulted by a patient labouring under permanent stricture, I first ascertain if an instrument can be passed into the bladder. I next mark the distance of the stricture from the external orifice, by means of a wax bougie, expressly made for this purpose. Having done this, I put the

bougie aside, and desire the patient to call the next day. If I find that no irritation has been occasioned by the previous operation, I arm a wax bougie, of a size just large enough to pass through the stricture, with the same quantity of the kali as I use in spasmodic stricture. This I pass backwards and forwards over the strictured parts in a similar manner, continuing the operation until, as in the other case, a sensation of heat is produced, but, except in very aggravated cases, discontinuing it as soon as that sensation becomes *painful*. The patient, who is strictly enjoined to avoid all stimulants, is then desired to repeat his visit on the succeeding day, and if I find that any irritation has arisen in the interval, I order a saline mixture with Dover's powder, giving him instructions to avoid every thing having a tendency to excite irritation. In most cases, the effects of the application are so very mild, that in a few minutes every uneasy sensation disappears. Indeed it frequently happens to the patient to experience so much relief, as to induce him on the following day to express an anxious wish for the repetition of the application; and it is only upon my assurances of the injurious tendency of its too frequent use, that I am able to prevail on him to wait a few days. At the same time he assures me he suffered less pain from the application, than he had endured from previous attempts to dilate the stricture with the common bougie.

After an interval, the length of which is regulated by circumstances, I apply the kali again ; and, if no particular irritation has ensued from the first quantity used, I increase its strength, however always taking care to regulate it in such a manner, as not to produce a slough, but merely an *abrasion* of the mucous membrane at the point of obstruction or stricture. I proceed in the same way, until the stricture be removed, only occasionally passing bougies through the stricture, the size of which I increase according to the action of the kali on the stricture. Mr. Whately, it is true, is of opinion that no bougie should be passed between the applications, but, from my own experience, I have never known any ill effects to ensue, but that the cure, on the contrary, has been hastened in consequence. But when the kali, or any caustic is applied, of such strength as to cause considerable destruction of the stricture, then, undoubtedly, the passing of instruments would be evidently improper, by causing the too early separation of the slough, and thus giving rise, in all probability, to considerable hemorrhage, and consequently, to no slight alarm on the part of the patient and his friends. To the want of due caution in this respect may be attributed, in some degree, the severe effects which occasionally arise from the employment of caustic. When the kali is applied according to the method I recommend, and employ myself, there is no risk whatever ; whilst I

readily admit that when so powerful an agent is injudiciously and unskilfully used, it may produce most severe effects; and in this case, as in every other, rashness, instead of promoting, mars success. So far from having the slightest intention, by what I have just said, of alarming the timid portion of the public or of the profession, I renew here the oft repeated assurance, that this remedy, provided it be used with requisite caution, will be found to be quite as safe as it is efficacious.* My opinion in this respect is not taken up lightly, but founded upon years of extensive, and, I may say, most successful practice; and how differently remedies act, accordingly as they are applied, must be obvious to every one, whether he belongs to the profession or not. The most deadly poisons are used, not only without injury, but with the most signal benefit. The deadly qualities of the preparation, called prussic acid are almost proverbial, yet this powerful poison is employed in certain diseases, and taken into the stomach with the greatest benefit to the patient; and surely no one will be extravagant enough to assert that it should be expunged from

* To the non-professional reader I offer these few words of advice and caution:—If, upon consulting an individual, no matter what may be his station in the profession, or his celebrity in the eyes of the public, you find that in the preparatory examination he evinces a want of dexterity in the use of the bougie, or more especially shows the slightest disposition to resort to force in order to pass an instrument into the bladder, quit him at once, for you may rest assured that he is either grossly ignorant, or utterly reckless as to what may happen to you.

the catalogue of our remedies, merely because in the hands of an ignorant, or "bold bad man," it may cause the destruction of the patient. Those remarks are equally pertinent, as regards the use of the kali.

Before I proceed to illustrate my mode of treatment by cases, I shall first make a few remarks on those affections of the urethra and urinary canals, which have been occasionally mistaken for stricture, and which, if not quickly detected, are pregnant with the most serious consequences.

CHAPTER III.

ON DISEASES, WHERE THE SYMPTOMS RESEMBLE THOSE OF STRICTURE.

As there are many diseases of the urinary organs of which the symptoms resemble those of stricture, it may be desirable to notice them, were it only to prevent the inexperienced practitioner from being mistaken in this class of maladies. Those liable to be confounded with stricture are, irritation of the urethra or bladder, enlargement of the prostate gland, stone in the bladder, and ulcers in the urethra.

OF THE IRRITABLE URETHRA.

The membrane of the urethra possesses so high a degree of sensibility, that it requires but little to cause a morbid irritation of this canal. However, gonorrhœa is the most frequent cause of irritation, as it is of stricture. After an attack of gonorrhœa, the urethra frequently remains for a considerable time morbidly sensible to the slightest stimulus. This undue sensibility gives rise to symptoms analagous to those of stricture, from which, however, they may be distinguished by the following signs: although

in both cases there is a discharge of matter, pain felt both in voiding the urine and in the emission of semen, the water flowing with difficulty and in a less stream; yet there is this difference, in the one case, which can never happen in the other: that as the water passes, the difficulty gradually diminishes, and before one half of the bladder is emptied, it acquires its natural diameter. When any doubts exist, nothing more is necessary than to examine the canal by a bougie, in order to decide at once the nature of the malady. But, unless the examination be conducted with skill, it will only lead the operator into error, and be the means of his adopting a mode of treatment that will not only inevitably augment the disease, but give rise to (and this not unfrequently) the very malady it was intended to remove. For the purpose of illustrating this, we will suppose a case that I can assure my readers is of no unfrequent occurrence. A patient labouring under the symptoms I have just detailed, applies to a surgeon, under the mistaken idea that he labours under some form of stricture. The surgeon hears the history and symptoms, and most likley, if he has not seen many of these cases, at once coincides in the patient's views, and proceeds to examine the urethra. But here generally commences the first fault. As instead of taking a full-sized instrument for the purpose of examining the canal, he will most probably select a small one, with the mistaken notion that it will pass more easily

and with less pain to the patient. The small point of the instrument gets into some of the lacunæ, or may entangle in the folds of the urethra, or if it escape these "natural impediments," it may be arrested in the sinus of the bulb, or the slight narrowing of the urethra that is caused by its passage through the deep perineal fascia and Wilson's muscle. Again, it may be obstructed at the junction of that part of the urethra termed membranous with the prostatic portion of the canal.* Wherever these obstructions occur, the patient and the surgeon are alike deceived into the belief of the existence of a stricture. Bougies are employed, and the result is sometimes the laceration of a lacuna or abrasion of the urethra. If the patient escapes these evils, it, I fear, too frequently happens that a stricture is the product of the unnecessary and improper employment of the bougie. I could adduce many instances confirmatory of this, but that I may not multiply cases, I shall content myself by stating that I find from my Note-book, that in the course of the last twelve months I *have* been consulted in twenty cases of irritable urethra, which were erroneously supposed to be strictures. For an explanation of the causes that lead to such grave errors, I must again refer to my book entitled, *Has He a Stricture*, wherein the reader will find very fully detailed the causes which produce these mistakes, and their means of avoidance.

* For a more full account of the natural obstructions, see my little work, entitled, *Has He a Stricture?*

I shall consequently content myself by observing, that there are three principal rules by which we should be guided in our examination of the urethra—first, never to use a very small instrument; secondly, to give the instrument a proper curvature; and lastly, to keep the *point of the instrument directed to the upper surface of the urethra* as soon as it approaches the sinus of the bulb. By employing a small instrument, its point is more likely to be entangled in the lacuna magnâ than if we use a larger instrument. In passing a small bougie, should its point be arrested about three quarters of an inch below the external surface, we should neither hastily conclude that the obstruction arises from stricture, nor endeavour to force the instrument forward. If the point is merely entangled in a lacuna, much mischief might arise by forcing it forward, but it should be withdrawn a little, and, giving the point a different direction, we should then press it forward, when it will most probably pass into the bladder. There is another lacuna, in which the point of an instrument may get entangled, even though the bougie be of a moderate size. This is the sinus pocularis, or foramen, which is situated at the beginning of the caput gallinaginis. When a bougie enters it, the pain is exceedingly violent, and the patient springs back, even though the rest of the canal be free from irritation. When, therefore, such an occurrence takes place upon the bougie reaching this portion of the

canal, instead of thrusting it rashly onwards, we must, as above directed, withdraw the instrument, and then pass it in a different direction, when, if there be no stricture, it will advance. This would be the proper place to enumerate the natural obstructions, and where they are situated. The natural obstructions to the introduction of an instrument present themselves at three different parts of the urethra, namely, at the termination of the bulbous and the commencement of the membranous portion; at the end of the membranous, just anterior to the prostatic; and lastly, anterior to the internal sphincter of the bladder. It is to a disregard of these rules and landmarks, if I may so express myself, that in a great degree are to be attributed the frequent mistakes which are made with respect to the existence of stricture. I have little doubt myself that strictures have been frequently caused at these parts merely by the inflammation induced by the continued impelling of the point of the bougie against the membrane of the urethra. I even suspect that, in violent hands, the bougie has not unfrequently formed a false passage, especially at the first natural obstruction. I have mentioned these circumstances to show how cautious we ought to be in using force in passing instruments, and with what hesitation we should give an opinion as to the existence or non-existence of stricture. For an erroneous opinion either way could not fail to be of great, nay of vital importance to the

patient, by deceiving him into a false security on the one hand, or subjecting him to an improper course of treatment which would most assuredly aggravate his sufferings on the other. If any doubt exists in the mind of the surgeon, it should be honestly imparted to the patient, and a consultation be held with some one, who from his experience in these maladies, may be thought competent to give an opinion. By such a course of conduct, the medical attendant will not only retain his patient's confidence, but will command his esteem; the ignorant alone persevere in error.

OF ENLARGED PROSTATE GLAND.

Amongst the causes I have already enumerated, as capable of obstructing the passage of urine, and, in some cases, of raising an erroneous impression as to the existence of stricture, is enlargement of the prostate gland. A little care will generally enable us to avoid this error. The patient's age is almost of itself a protection against a wrong diagnosis. Add to this an examination of the prostate per ani, and there should be no difficulty in coming to a correct conclusion.

OF THE IRRITABLE BLADDER AS MISTAKEN FOR
STRICTURE.

There is so intimate a connection between the whole of the urinary organs, that it is all but impossible that one can be deranged, without producing a corresponding derangement in all the others. Hence arises that complication of symptoms, which has not unfrequently led to grave errors in the treatment of the diseases to which those organs are liable. There is scarce a malady of the urethra which does not, particularly if it be of long standing, derange more or less the functions of the bladder. If unchecked, it is almost sure to produce in the ureters and kidneys an equal state of derangement; so that at last it becomes exceedingly difficult, if not impossible, to ascertain the original seat of the mischief. In like manner, the diseased state of those organs imparts uneasy sensations, and a morbid action to the urethra; thus, for example, the existence of stone in the bladder has frequently produced so much derangement in the action of the urinary canal, as to give rise to the supposition of stricture, especially of the spasmodic variety. By a judicious examination of the bladder, we are enabled, however, to detect the error, and discover the true cause of irritation. Without stricture, stone, or enlargement of the prostate gland, still a derangement of the bladder,

under the name of irritable bladder, frequently occurs.

I find from my own experience that this disease has this in common with nearly all the other maladies of the urinary organs, that its first cause is generally the result of neglected, or unskilfully treated gonorrhœa. Irritable bladder will also proceed from a disordered state of the stomach and bowels. I have frequently known instances, also, where disordered stomach and bowels have produced symptoms which have been mistaken and even treated for spasmodic stricture. We should therefore direct our attention to the digestive organs in all these diseases, as in others. Unfortunately, this is much neglected in the treatment of stricture, and of the diseases of the urinary organs. Surgeons, in treating these diseases are too apt to employ such remedies as are supposed to have a specific action on those organs, whilst they totally overlook or disregard any pre-existing derangement of the stomach and bowels, or such as may be produced by these very remedies. To this neglect may be attributed in very many cases, the failure of medicines of tried virtue in the diseases of the urinary organs, and which would prove eminently successful, if they were not given (if I may so express myself) empirically.

Irritability of the bladder is often produced in the following manner. A patient has been long afflicted with gonorrhœa, the inflammation arising from which

has been extended to the bladder. At length the discharge is nearly stopped, but upon any irregularity, it makes its appearance again, though perhaps slightly, or a too powerful injection may have been employed to arrest a troublesome gleet. In either of these cases, great irritability of the bladder supervenes, and if the symptoms are violent, they are accompanied by a constant desire to empty that viscus. This desire frequently arises every ten minutes, or even less, and then only a few drops are voided, or a little is violently ejected or squirted out, attended with the most excruciating pain, both at the neck of the bladder and the whole length of the urethra, but especially at the extremity of the glans penis. At the same time, there is a sensation of fullness over the pubis, and the bladder feels distended, though there is perhaps not an ounce contained in it. Such are the symptoms in the more acute state of irritation of the bladder. In this case, leeches, tepid washing, and regulation of the bowels must be the mode of treatment. However, there is another state of irritation, more insidious, but scarcely less dangerous than the former, and presenting, though in a lesser degree, all the foregoing symptoms. But the desire to empty the bladder is neither so frequent nor so urgent, although much more frequent than in a healthy state. At the same time, a gluey secretion, which is peculiarly irritating, comes with the few last drops of water. There is a kind of chalk and water secretion at times, which is not less irritating, and, if allowed

to dry, may be brushed off like dry mud. During the whole of this time there is an uneasy sensation over the whole region of the bladder, together with a smarting and throbbing in the perinæum, and an itching round the verge of the anus. Besides these, there is great uneasiness along the whole urethra, and a smarting at the glands, which, in order to relieve, the patient forcibly pinches. These symptoms continue with more or less intensity, occasionally nearly or totally disappearing, but making their reappearance upon the slightest excitement, such as coition, drinking an extra glass of wine, or straining at stool. When the disease is of long continuance, the bladder becomes thickened, contracted and incapable any longer of its proper distension. In consequence, the inner membrane is thrown into rugæ, these also become thickened, and no longer retain their naturally soft and membranous texture. At the same time, they are morbidly sensible to any pressure upon them. In this state the disease makes rapid progress, if unrelieved; severe inflammation arises, and there is a morbid and vitiated secretion from the mucous lining of the bladder. This secretion, remaining in the bladder, becomes a fresh source of mischief, additional irritation ensues, and it not unfrequently happens that ulceration is superadded. In this last stage, the patient's doom is, in most cases, sealed.

With respect to the treatment of this form of disease,

it must consist, in the first place, of the usual means employed to allay and remove irritation, namely, the diet and drink plain, leeches, and tepid bathing (I have in some instances used cold bathing with the happiest effects). At the same time, constipation must be guarded against by mild aperients and enemas. When there is any muco-purulent secretion from the bladder, the injection of warm water into the bladder will be found highly beneficial, and should on no account be neglected. By this simple process and attention to the bowels, I have in some cases, which I have looked upon as all but hopeless, restored the patient to perfect health.

CHAPTER IV.

OF THE TREATMENT OF THE MALADIES CONSEQUENT UPON STRICTURE IN THE URETHRA.

RETENTION OF URINE.

THIS consequence of stricture is a very frequent attendant on every form of that disease, and in the generality of instances, it is the result of a sudden accession to the inflammation or irritation already existing in the urethra from the presence of stricture. But although in most cases its causes are similar, and in all, its symptoms are alike; the treatment of this disorder is far from being so uniform as it is in these respects. Thus, before we adopt any line of treatment for the relief of a patient labouring under an attack of retention of urine, it becomes of essential importance to learn, if possible, the previous condition of the urinary conduit. On the information the patient may give us will depend, in a great degree, the mode of treatment we ought to pursue for his relief. Inasmuch as there is a wide difference, in my opinion, in the treatment to be adopted in cases of retention, according as they are dependant upon the different forms of stricture. Thus in retention of urine in a

case of spasmodic stricture, we may at once and fearlessly, have recourse to the catheter. In retention accompanied by permanent stricture, it becomes a very delicate question whether we may venture to employ the catheter in the first instance. But first of the treatment of retention under the former circumstances. In the consideration of this question it becomes necessary to briefly recapitulate the observations already made on the nature of spasmodic obstructions in the urinary canal.

Well, then, in the preceding pages I have stated spasmodic stricture to be an inflammation of the urethral membrane, whereby is induced an irregular or undue action in the muscles employed in the excretion of urine.

Now a patient whose urethra is in this state joins a dinner party, drinks freely of wine, and commits all kinds of foolish acts. His whole system in consequence is very quickly in a state of excitement, and the same causes that heat his blood give additional intensity to the inflammation or irritation pre-existing in the urethra; this in its turn produces a corresponding increase of irregular action in the muscles of urinary expulsion, and the result is a retention of urine. This is a very common way in which retention is produced. It may, however, arise from other circumstances – such as exposure to cold, unusual fatigue, getting wet, and from irritation following the introduction of instruments, &c. &c.

From the foregoing remarks, it appears that *inflammation* and *spasm* constitute the disease in question. A priori, therefore, we should be inclined to adopt such means as are calculated to diminish the inflammation in the urethra; and this would, as a necessary consequence, remove the spasmodic affection dependant on it.

This view of the case would lead us to employ local bleeding, perhaps general, warm baths, aperients, especially in the form of clysters, and after the evacuation of the bowels, opiate enemas, &c. But advantageous as such a mode of treatment undoubtedly would be, there are insurmountable objections against our confining ourselves to it, namely, the time that must elapse before their beneficial effects can be brought into play, and the consequent prolongation of the patient's intense suffering, by the delay this mode of treatment requires. It is not, however, to be viewed in this light only as objectionable, but also in another, viz. that the continued straining of the parts, from the patient's fruitless attempts to void his urine, is almost certain to increase the violence of the retention, and perchance render these means abortive. These circumstances, I say, offer insurmountable objections to our confining our attempts at relieving the patient to the antiphlogistic means above alluded to. I say this with all due deference to those gentlemen who are of a contrary opinion, and who at the same time oppose the line of practice which I am about to recommend.

From the foregoing observations, we learn that the inflammation existing in the urethra gives rise to spasm, and that the spasm produces a retention of urine. Now the question suggests itself can we by any means remove the irregular spasmodic action, and thereby at once relieve the patient, leaving the inflammation to our after consideration. In answer to this, experience tells us we can mostly bring on that consent of the parts which is only wanted to cause the urine to flow, by the mere introduction of a bougie into the urethra as far down as the stricture.

With this knowledge, then, I think that in retention of urine from spasmodic stricture, there cannot be a doubt as to the propriety of at once attempting to relieve the patient by the introduction of an instrument, rather than consign him to the prolonged suffering that must attend upon the adoption of the antiphlogistic treatment alone.

Well then, our treatment in this case will stand thus. To attempt to relieve the patient by the immediate use of the catheter; if it passes through the obstruction into the bladder, the retention is of course removed. But in some instances we cannot accomplish its introduction. When this is the case, we must content ourselves by firmly, though at the same time not roughly, pressing the point of the instrument against the impediment. Should the extremity of the catheter be grasped by the spasm, we may wait a few minutes and then again urge the instru-

ment onwards. In this manner we may gradually insinuate it through the stricture, or if we do not succeed in doing so, it is more than probable that if we direct the patient to attempt to urinate, and at the same time withdraw the instrument, the urine will follow it. In this case we must, after the patient has emptied his bladder, immediately adopt active antiphlogistic measures, in order to prevent the recurrence of the retention. But if, notwithstanding the employment of the bougie, the retention continue, we must, without further loss of time, adopt the most active antiphlogistic treatment. We have given our patient a chance of immediate relief, it has failed; and we must be content to wait the result of more tardy means.

In retention of urine complicated with permanent stricture, it is very questionable whether we should attempt the relief of the patient by immediate recourse to the catheter or not,—the more especially if the stricture be one that is known to be impervious to an instrument. If only a few days before the attack a moderate sized bougie could be passed, I should then be inclined to attempt the immediate relief of the patient by the catheter; because it is most probable that the retention arises from spasm. But if no instrument could previously to the attack be passed, I should not attempt to relieve the patient by the catheter till all other means had failed. Those means being general and local bleed-

ing, aperients, anodynes, warm baths, fomentations, &c.

But in retention from permanent stricture it will happen that all these means prove abortive in relieving the patient. Then arises the important question what is next to be done? Here we see the patient labouring under the most acute agony,—the bladder reaching up to the umbilicus and tense as a ball. Words are, however, feeble in depicting the intensity and severity of his sufferings.—His life hangs on a thread.—Great as his sufferings are, and appalling as the danger that threatens him, we must not despair, but rather the more calmly look around for the means of relief. What are they? Shall we attempt by force to break down the stricture and carry a catheter on to the bladder; and thereby at once overcome the retention and strictures. It is a plausible idea, and withal has the merit of dispatch to attract the young and inexperienced. But, nevertheless, it is a most dangerous mode of practice and one that I am apt to think no circumstances can justify; I say this with all due deference to those who recommend and practise it. Force a stricture! the patient cured by a *coup-de-main*! Where is the young surgeon that would not rather thus boldly attempt to cure his patient than by the slow steps afforded by patience and skill. Yet I tell him and all others who would follow this practice, that no man (I care not how skilful he may be), can answer for the con-

sequences that may result from using violence in the urethra with instruments. See, the bougie is fixed against the obstruction,—it advances,—it is going in (be patient my good man, you will soon be relieved), a tear is felt,—blood flows copiously,—the bougie has entered the bladder. No, the spongy texture of the bulb of the urethra and the point of the instrument can be felt between the urethra and rectum. Thus a false passage is added to the mischief, and the patient remains not only unrelieved, but his danger is increased. Still the question recurs, what are we to do ; puncture the bladder ? I should say yes, rather than use force of any kind. There is yet another mode of practice which I should prefer in very many cases : namely, incision of the urethra through the perinæum, as recommended by Sir A. Cooper in his *Surgical Lectures*. This operation, in my opinion, is in every way preferable to any other. The risk of false passages, which in the most skilful hands must attend the employment of force, is an insurmountable object to this mode of practice. The injury to the bladder from its puncture is a serious objection to that line of treatment. Whilst the only objection to the last is its difficulty. But this is not a legitimate objection, for the difficulty attendant on an operation is no justification to the surgeon for the performance of another in its place, which is far more serious and dangerous to the patient. With these remarks, I shall conclude the subject of retention of

urine, referring the reader to the elementary works on surgery for an account of the mode of performing the operations I have alluded to.

OF FISTULA IN PERINEO.

When this disease arises from stricture, our first object must be the removal of the impediment to the free passage of the water along the natural canal. Until this is done, it will be in vain to expect the fistulous openings to heal, that is, permanently. The strictures being removed, it sometimes happens that the fistula heals of itself. When this does not occur, it will be necessary to adopt measures for its cure. Now the main cause of the non-healing of these openings is, the constant escape of urine through them. It follows of course, that our aim must be to prevent this; and our only means of prevention is the catheter, by which we may draw off the urine, and thereby prevent its passage through the unnatural openings. The only question that arises in the employment of the catheter in these cases is whether it should be retained in the urethra altogether, or merely introduced when the patient desires to empty the bladder. As a general rule, I should recommend the retention of the catheter; but, as in some cases the continued presence of the instrument produces considerable irritation, accompanied by an abundant discharge, which, escaping into the fistu-

lous openings, prevents their healing, it becomes necessary to adopt the other mode of treatment. When these means fail, and the fistulous openings appear indolent, stimulating ointments and caustic applications are employed with a view to excite a healing process. Should these means also prove ineffectual, it will be advisable to lay, if possible, the sinuses completely open, and then treat them as a common wound.

OF RIGORS.

When a patient is known to have suffered from, or is suspected to be predisposed to this consequence of stricture, it will be advisable, on the principle, that to prevent is better than to cure, to keep him well under the influence of some opiate preparation whilst he is under a course of operations. Care, on this point, will very generally prevent the attack, or, at any rate, will very much lessen its severity.

When they occur, notwithstanding these precautions, we should immediately administer a full dose of some opiate preparation, conjoined with diaphoretics and salines. The effects of these medicines may be increased by the use of the warm-bath, if it can be provided, or if not, the emersion of the feet in warm water, and the application of bottles of warm water to them afterwards, when the patient is in bed. Never bleed, it has proved a fatal error. In the

more chronic attacks of rigors, quinine and opium are of great service; the latter, however, is the most valuable remedy of all.

OF CATARRH OF THE BLADDER.

In the treatment of this disease, when dependant on stricture, we must of course direct our attention to the removal of the obstruction to the urine's free exit. But whilst we are doing so, we may exert ourselves towards, at least, relieving the more urgent symptoms of the malady in question. There are very many remedies that are highly extolled for their effects in this disease. They are, however, according to my experience, all very uncertain. I have tried in different cases each of them, and in some instances have found them beneficial, whilst in others they have proved totally useless. These remedies are buchu, uva ursi, pareira brava, nitric acid, copaiba, cubebs, &c. &c.

The most invariably successful treatment that I have adopted in chronic catarrh of the bladder is the injection of that viscus with warm water. I have found this to be at once the most certain and speedy means of cure in this disease, and I consequently would strongly recommend that it be always tried; it will in most cases be found successful, whilst, if it be used with care and discernment, it cannot, even if it fail, prove injurious. At the same

time, there can be no objection to our trying, in addition to the injection, some one of the medicines above-mentioned.

OF CYSTS OR POUCHES OF THE BLADDER.

Our only chance of affording relief in this complication of stricture is, the removal of the obstruction to the urine's free exit. When the bladder is freed from the straining and excitement consequent upon the disease in the urethra, I think it not improbable that it may regain its tone and healthful state.

CASES.

In my selection of Cases illustrative of the superiority of the kali purum, over all other modes of cure, I have not confined myself to those which were under my own exclusive care, but have also availed myself of the records of the efficacy of this method of treatment afforded by my late father's extensive experience, during a period of upwards of thirty-five years' practice in this interesting and important branch of surgery.

CASE I.

A Stricture of Thirteen Years' existence, finally becoming Impervious to an Instrument, and accompanied by Induration of the Penis and a Hard Tumour in the Perinæum.

March 2d, 1840.

W. W. Esq., M.D., and one of the physicians to the ——— County Dispensary, South Wales, having read my late father's work on the treatment of stricture with the kali purum or potassa fusa, came up to London with a view to consult him. In consequence of my father's death, he waited upon me, and expressed much regret and disappointment at that melancholy event, which he feared would deprive him of all prospect of relief. He was somewhat consoled, however, upon my informing him that my father had retired some years before his death from the more active duties of his practice in my favour, and that I continued to adopt the same mode of treatment that he had pursued with such credit to himself and advantage to those who had the good fortune to consult him. Under these circumstances he placed himself under my care.

The following is an account from his own lips of the cause and progress of his disorder. "Some one and twenty years since I first entered the profession as an apprentice to a general practitioner in South Wales. I had not been with him more than three

weeks or so before I had the misfortune to contract a gonorrhœa. At first I was anxious to conceal my illness, but the inflammatory symptoms of the disease became so violent, and I so unwell altogether, that I was compelled to inform my master of my state. He confined me to my bed for some days, and at the same time gave me active aperients and powders containing nitre and gum. When the inflammatory symptoms had subsided, but not left me, I was ordered to inject a solution of the cupri sulphas. This I used for some time, but notwithstanding I persevered in it and various other remedies, I never got free of the disease, in short a gleet remained upon me. About eight years after this I was (the discharge still existed), suddenly, whilst pursuing my professional studies at Edinburgh, seized with a retention of urine. I can scarcely remember in what sized stream I voided my urine previous to this attack, but I imagine it must have been gradually diminishing in column. I was relieved by the catheter. For twelve months I continued well, with the exception of the discharge; at the expiration of this period I was again suddenly attacked by a retention of urine. Upon this occasion I called in Mr. —, who relieved me by the introduction of a catheter. Shortly after this I left Edinburgh, and went to reside at —. After I had resided there some time, I was constantly suffering under attacks of retention of urine, for the relief of which I used to pass an instrument

myself. In the course of two years the attacks had become so frequent, and the irritation of the bladder so great, that I was often compelled to introduce the bougie eight or nine times a day. In short I scarcely ever made water without first passing an instrument, and often on these occasions suffered much from hemorrhage from the urethra. At length the dreadful state in which I was, induced me to come to London to consult Mr., now Sir ———.

Sir ——— examined my urethra at the first visit with a full sized wax bougie, which however did not pass through or into the stricture. I was directed to be cupped on the perinæum and take some aperients. I waited on Sir ——— again the following day, who attempted to pass a smaller instrument, but without success. I experienced great pain, and there was some bleeding. Upon subsequent attempts different sized bougies were passed, but they always gave me intense pain, and caused much bleeding from the urethra. During the period occupied by these operations, I was frequently cupped, both on the perinæum and over the loins. At length one day Sir ——— attempted to pass a much larger sized instrument (catheter) than had ever before been introduced. There was considerable difficulty in its introduction, and as it passed through the stricture it appeared to me as if it was lacerating the urethra. Upon the withdrawal of the instrument a profuse hemorrhage took place. I returned to my lodgings, and although I was suffering

acute pain, I sat down to read. I read for nearly two hours, when feeling my linen very wet, I thought that my urine was passing involuntarily ; upon examination, however, I found, to my inexpressible horror, that my clothes were saturated with blood. I immediately undressed, laid on the bed, and applied cold water to the perinæum, holding a tumber to the orifice of the urethra to receive the blood. For two hours I remained in this state. I now became seriously alarmed, and sent for a friend of mine, Mr. —, a chemist in Oxford-street. By the desire of my friend, I sent to request the immediate attendance of Sir — —, but he was from home, and not expected to return for some hours. Mr. — now went to fetch a friend of his, a surgeon, whose name I forget. This gentleman immediately attended, and by his advise I sat in ice for some time. The hemorrhage however continuing, I sent again to my friend, who dispatched a second messenger to Sir — —. He was however still from home, but a young gentleman came who applied a bladder of ice to the perinæum. Notwithstanding this, the hemorrhage continued. I had now been bleeding nine hours, and I think I had not lost less than four pints of blood. I was completely exhausted. It was now night, Sir — — called to see me and was rather hurt at my having sent for another gentleman, I excused myself on account of the alarming nature of the hemorrhage. At Sir — — desire, the

gentleman who had seen me was sent for, and he immediately attended. It was at first proposed to take up the artery, but after some further conversation, it was determined that the operation should be delayed a little longer, and the plumbi acet. given in the meantime, in doses of two grains every second hour. Sir ——— visited me at eleven o'clock at night, the hemorrhage was less violent, and he came again at two in the morning, when the bleeding had nearly ceased. At six o'clock the hemorrhage stopped. Sir ——— saw me again at this hour. For a fortnight no operation with the bougie was performed, except on one occasion, when I had an attack of retention, and was obliged to send to Sir ———, who relieved me by passing a small catgut bougie. I did not experience any inconvenience from that operation. After this, Sir ——— passed a silver catheter, about size No. 9, without my experiencing any particular inconvenience. Instruments were subsequently to this passed very often without difficulty, and I made water pretty freely, but I was never free from uneasiness, I may say pain in the urethra. I had now been in town six months, and I intended to have remained some time longer, but was in consequence of the illness of a near relative, obliged to go into the country. Shortly after my return, I found my old symptoms returning, notwithstanding I regularly passed instruments myself. The stream of urine gradually diminished, the attacks

of retention became more frequent, and I was gradually obliged to diminish the size of the bougies I used. Years passed on, but brought with them no diminution in my sufferings; on the contrary, my malady grew upon me so, that at length I was never able to void my water without first passing an instrument through the stricture,—in fact the retention was constant. I could not leave home for the shortest period without taking an instrument with me. Dreadful as my state was now, I was yet doomed to endure more, for I became subject to violent attacks of rigors. In a word, my life was become a perfect burden to me. At length, no bougie would pass. By accident I heard of your father's work on the treatment of stricture, I purchased it, and after I had perused it, I determined upon coming up to London to seek relief at his hands, feeling the greatest confidence in the mode of treatment that he recommended."

Such is the account furnished me by Dr. — of his prolonged and dreadful sufferings.

Upon examination of his urethra with a bougie, I found a stricture at the bulb, through which no instrument could be passed; there was considerable irritation and spasm, as also a great disposition to hemorrhage upon the instrument touching the stricture. There was a considerable tumour in the perinæum, extending from the scrotum backwards towards the verge of the anus; it was exceedingly hard and indurated. The urine was passed with great difficulty and

straining, and more frequently voided guttatim than in a stream. The exertion required to evacuate the water was so great as to cause the involuntary expulsion of the contents of the rectum. The desire to urinate was constant both day and night. The general health was much deranged; in short both the mental and physical energies greatly depressed.

During a period of two months I applied the kali six times; I was not able to apply it more frequently because I was repeatedly compelled to discontinue the use of instruments in consequence of the great disposition there was in the urethra to hemorrhage, the slightest pressure with the bougie being sufficient to cause bleeding. The hemorrhage however was never very great, as I was particularly cautious not to incur the risk of aggravating it by too frequent or too prolonged attempts to pass a bougie. The stream of urine however had gradually improved, and the desire to urinate was much less frequent; he had never had an attack of retention or of rigors since he was under my treatment. This was a great improvement, as he had for years been the victim of these distressing consequences of stricture. Still no bougie could be passed through the stricture into the bladder. At the same time I was well assured that now the point of a good sized bougie could be passed into the stricture, and that it was only prevented passing through the stricture by the urgency and force of the spasmodic contractions which invariably occurred

upon the point of the instrument reaching the seat of the disease. To overcome this impediment leeches were frequently applied, and I administered in vain every kind of anodyne and anti-spasmodic, both by the mouth and in the form of enema.

During another fortnight the kali was applied three times, and the patient kept well under the influence of opium. Yet the spasmodic action was as violent as ever. Surprised at the exceeding obstinacy of the spasms, I was led to think that some hidden cause must exist, but as I could not detect anything in the appearance of the patient, I at length suspected that his mode of living was not as regular as I could wish; I consequently made inquiry of a person who had opportunities of knowing his proceedings, and I then learnt that my suspicions were not groundless, and that he was in the habit of partaking very freely of the good things of life. At his next visit I took the liberty of pointing out to him the folly of his conduct, and the danger that must ultimately result from a continued indulgence in these excesses. He at once felt the force of my observations, and the injury his imprudence was calculated to inflict on himself. He consequently promised me that for the future he would be more careful. This promise he rigidly kept. During the next fortnight I applied the kali four times, and occasionally passed a bougie into the stricture. At every operation I found the spasms less

violent, and at the end of this time I passed a flexible catheter (No. 5) into the bladder. As there were great spasmodic contractions on the instrument as it lay in the urethra, I determined upon retaining it there, for I have found that no means so quickly remove this kind of irritable contraction as the retention of the catheter. At the same time I ordered him an anodyne enema. Upon visiting him early the next morning, I found the catheter still retained, and that all spasm had subsided; I withdrew the instrument, and immediately passed, with perfect ease, a full-sized catheter. After this had been in some minutes, I found that it was grasped tightly by the recurrence of the spasm. I therefore determined upon leaving it in the same as the first. The next day I found the instrument like its predecessor, lying in the canal quite loose, but the retention of the catheter had occasioned considerable pain in the old tumour in the perinæum.

I should here state that we were frequently during the preceding period, compelled to apply leeches to this tumour, in consequence of the strong tendency evinced in it to assume an inflammatory action of the acute kind. A fortnight elapsed before the irritation in the tumour was sufficiently subdued to allow of any operation on the urethra. At the expiration of this time I attempted to pass an instrument, but I found the spasms again so urgent, that it was impossible to do so. Several attempts were made, and the kali applied, but without success. The tumour in the perinæum now showed a disposition to extend

itself, and gradually, notwithstanding the application of leeches, and the employment of other means, it spread forwards so as to involve a considerable part of the penis. By the repeated application of leeches, and the employment of warm fomentations, this enlargement was gradually reduced, and by the rubbing in of an ointment of ung. hydriodat. potass. ct. camphor entirely removed, as far as the penis was concerned.

I now made another attempt to introduce the catheter, but although it entered the stricture, it would not pass through. I felt it grasped firmly in the contraction, I consequently determined on leaving it fixed in the stricture. At the same time I ordered an anodyne enema, and directed the doctor in an hour or so to attempt to pass the instrument onwards. In six hours from this he sent for me, and upon my arrival I found he had succeeded in passing the instrument into the bladder. I now determined upon keeping the instrument in the canal as before, trusting that by the application of leeches, &c., I should be able to keep down any irritation that might arise in the troublesome tumour in the perinæum. But in two days I was again compelled to withdraw the catheter, in consequence of the irritation and pain excited in that situation. The inflammation on this occasion was so violent as quickly to terminate in suppuration, I therefore lost no time in opening it, in order to prevent its forming a communication with the urethra. A large quantity of ill-conditioned pus

was discharged from the opening, but no urine; thereby fully establishing the correctness of the opinion I had formed that the tumour was not caused by the escape of urine, but solely from the extension of the irritation, resulting from the stricture in the urethra, and thus terminating in the cellular tissue around, as we sometimes see occurring in some inflammatory cases of gonorrhœa. Had I not felt certain on this point, I should at once have made an opening in the tumour. Whilst this was going forwards, the indurations in the penis returned, and in a week I was obliged to make free incisions for the escape of the matter that had there formed. From this time, the patient continued to improve rapidly,—the abscesses gradually healed, and his general health was greatly improved; the urine was voided with perfect ease and in a much larger stream than it had ever been since the commencement of the disease. The catheter could also be introduced both by the doctor and myself without causing the slightest pain or meeting with the most trifling impediment. In a month from this time he returned home perfectly cured, having been in all little more than four months in town; and I cannot but think, that if he had been more prudent during the first two months of his being under my care, that his case would not have been so protracted. Before leaving London, he wrote me the following letter, upon my forwarding the foregoing account of his case to

him for his perusal, that he might correct any errors, if any such there were.

“ May 31, 1840.

“ My dear Sir,

“ I have thought it necessary, previous to my leaving town, to express to you my warmest thanks, for the kind and unremitting attention that you have shown me ever since I placed myself under your care; as also to testify to the correctness of the details of my case, as taken down by you. I would add, that from my experience, not only in my own case, but also from what I have seen in others, I feel assured, that in old and obstinate cases of stricture, the mode of treatment adopted by you with the kali, is far superior to any other method. By it the cure is accomplished with much greater certainty, and with infinitely less pain, than by the treatment with the common bougies and catheters. I think my own case fully confirms this, as I was six months under the care of Sir — — and when I left London, although better, was not anything like I now am. It is true, I could pass a large sized bougie, but I could not do it with the ease that I now can a larger; nor could I void my urine with the facility and comfort that I can at the present moment. This is the result of your treatment of four months, and I feel convinced, that if I had not neglected your advice for

the two first months of my stay in London, that my cure would have been effected in a much less time.

“ I am, my dear Sir,

“ Your sincere friend,

“ W. W., M. D.

“ F B. Courtenay, Esq.”

I have heard from this gentleman several times since he left London, and he tells me that he continues perfectly well.

CASE II.*

Strictures of fifteen years' existence, accompanied by Rigors Cured by the Kali after the Lunar Caustic had failed.

Sir S. Y—— had been troubled with strictures in the urethra for upwards of fifteen years. About ten years since, he had the lunar caustic applied to them, and received some relief; his stream of urine increased, and he was enabled to pass a moderate sized bougie into the bladder. However, in a year or two, the strictures closed so much, that no bougie could be passed through them; the urethra became

* The two following Cases were treated by my father.

extremely irritable, and the passing the bougie down to the stricture gave great pain, and was attended with such alarming rigors, that his life appeared in the most imminent danger. On these occasions, the urine was voided with great difficulty and straining, and in a thread-like stream. Almost every surgeon of any eminence had in succession been consulted, and none could pass a bougie, or attempt to do so, without bringing on those dreadful irritations and rigors that threatened to deprive him of existence. In this state, he was recommended by a noble lord, who had been labouring under strictures, and whom I had cured, to apply to me. The worthy baronet called on me, and after stating his case, I wished to pass a bougie, that I might better understand the state of his urethra; but to this he objected, as he was certain the rigors would attack him, and he should be obliged immediately to go to bed, and remain there most probably the whole of the day, he therefore wished me to call on him the following day at his house. I did so, and found him suffering under a severe attack of rigors, brought on by his attempting, previously to my coming, to pass a bougie. Under these circumstances, I declined operating that day, but ordered him a mixture, which I assured him would prevent a return of the rigors: he smiled, and said he should take the medicine, but had not the least idea of its putting an end to the rigors, as he had taken a great variety of medicines, from some practitioners of the

very first-rate talents in the profession ; but not one had succeeded. I again assured him that I had prescribed this medicine with almost invariable success, and I hoped he would give it a fair trial, which he at length promised he would do. The next day I called on him again : he was delighted to see me ; he had taken regularly his medicine, and had had no return of the rigors. I then operated on him by applying the kali. A dose of the medicine was given immediately after the operation, and I requested him to continue taking it every six hours. The day following, on my calling again, he informed me that, to his great surprise and delight, he had had no return of the rigors. The operation was repeated, little or no pain was caused, a drop or two of blood only followed the operation. During six weeks the operations were continued, when the strictures were all completely destroyed, and a full-sized bougie was passed freely into the bladder : he experienced only once or twice during the cure a return of the rigors, and then but very slightly ; they have now altogether ceased, and his health is perfectly restored. Previously to his leaving town, he sent me the following letter, with permission to publish or show it to any person similarly afflicted :—

“ Jan. 6th, 1826.

“ My dear Sir,

“ I cannot leave town without begging you to accept my best acknowledgments for the kind care, great skill, and judgment you have shown, in effecting a complete cure of my very long standing, permanent, or constitutional strictures. From the extreme state of excitation and irritability of my whole nervous system, and the frequent recurrence of the violent rigors I had suffered under for so many years past, I had but a faint hope of a perfect restoration. Having, in 1801, removed (as I then imagined) effectually my strictures with the lunar caustic, I am a pretty good judge of the difference between that application and your remedy, and must declare that there is no comparison between them, the lunar caustic producing great pain, with great inflammation, and sometimes alarming hemorrhage, while your remedy was entirely free from them all; the pain of the operation being very trifling, no hemorrhage, and the inflammation very inconsiderable. I really suffered ten times more in passing the bougie into the urethra, from its extreme state of nervous irritability, than from the application of your remedy to the stricture itself. My formidable rigors have entirely left me, and my general health very much improved. You are at liberty, my dear Sir, to show this letter, or make any reference to me you please, and I shall always feel a pleasure in being instru-

mental to the relief of others, by recommending them to your skill and care.

“ I remain, my dear Sir,

“ Yours sincerely,

“ S. Y.”

CASE III.

*Stricture of the Urethra of thirty years' existence,
Cured by the Kali, after Sir E. Home had failed
with the Caustic.*

The Honourable C. D., M. P., called at my house, to consult me on a case of stricture of the urethra, with which he had been afflicted for thirty years. He stated, that he had been under the care of many surgeons of great eminence in their profession, who had each, in his turn, afforded him temporary relief, but not from one did he obtain a permanent cure. He was recommended to me by a noble lord, who had experienced the benefit of my plan of treatment, by having himself been cured of strictures of many years' duration.

C. D. further stated, that among the number of eminent surgeons he had consulted, he had been under the care of Sir Everard Home, who applied

the lunar caustic ; but that this gave him the most excruciating pain, and that a very considerable and alarming hemorrhage followed its application. After being some months under Sir Everard's care, he acknowledged that the stream of urine flowed better than on his first application, but he did not make any further progress towards a cure, and he therefore considered his case almost hopeless.

He continued for years experiencing all the varieties and fluctuations ever attendant on these distressing complaints, sometimes scarcely able to pass his urine, except in drops, attended with great pain and suffering ; though, at others, by the constant use of the bougie, he was enabled to pass his water in a larger stream, and to evacuate the contents of the bladder in a much shorter time than before. In this distressing state he remained for many years, when the noble lord to whom I before alluded, advised him to consult me on his case.

On my passing the smallest bougie, which I did with some difficulty, I discovered two strictures ; one of them about six inches and a half from the external orifice. I proposed applying the kali. To this at first he objected, having had the caustic applied several times, as I have before mentioned, by Sir Everard Home ; and in addition to this objection, his then medical man gave it as his opinion, that at his advanced age there would be great danger in applying caustic. However, by my assuring him

that my experience enabled me to apply it not only carefully, but skilfully, after a little hesitation, he said he had full confidence in me, and he trusted I should be more successful than any of the gentlemen who had preceded me.

I applied the kali, and when I withdrew the instrument, he expressed himself much surprised at the little pain it had occasioned:—no hemorrhage followed this application. After five applications, the first stricture was entirely destroyed. To the second stricture three applications were only required, when I could pass with ease a metallic bougie, No. 10, into the bladder. In a week after, I passed No. 11, and at the expiration of five weeks, from the time of his first consulting me, a full-sized bougie, No. 12, which was as large as the natural passage would admit, was introduced into the bladder with perfect ease, both by himself and by me. Thus were these formidable strictures, which had distressed this gentleman for thirty years of his life, and who, during this period, had been in vain seeking relief from men of acknowledged eminence in their profession, in the short space of five weeks completely removed by the careful and judicious application of this potent and admirable remedy—the kali; this too without the occurrence of one alarming or untoward symptom during the progress of the cure.

I need scarcely add, that my patient's friendship for me was as unbounded as his liberality, and in no

instance did he suffer an opportunity to pass of expressing himself indebted to me for the excellent health he enjoyed. The following letter was written to me in consequence of my calling on him to take my leave, as I was going to Scotland for a few weeks: it was unsolicited on my part:—

“Parliament-street,

“Dear Sir,

“March 26, 1831.

“I cannot allow you to leave London without expressing my thanks to you, for your kind attention to me during a very serious illness; as this (I believe) was originally brought on me by violent exercise on horseback; I had tried to effect a cure by the assistance of Sir Everard Home, whose application of the caustic was most violent and painful. Your system of using kali, instead of caustic, is of a very different description, being attended with no pain, and being much more effective. I am now perfectly well. Owing this to your attention and ability. Wishing you a pleasant voyage and success with your patients in Scotland.

“I am, dear Sir,

“Yours faithfully,

“C. D.”

“To Dr. Courtenay, &c.”

Some time after this C. D. was called up to the House of Peers as Lord A. The conferring a title

was, in this instance, universally regarded as the just reward of a long life of unsullied private virtue, and undeviating public integrity. His lordship, I deeply regret to have to state, did not but a very short time survive his advancement to the peerage. He died at his house in Pimlico, after an illness of three days, from an attack of the cholera.

CASE IV.

A Stricture of the Urethra that had been Treated for upwards of two years by Internal Medicines without success Cured by four applications of the Kali.

March 5, 1834.

Mr. B. wrote to my father from Bristol, stating that, from having read his work on strictures of the urethra, he was induced to hope that, by his assistance, he should at length get rid of his troublesome disorder—strictures of the urethra. He at the same time informed him that, about two years before, he had applied to a Dr. T——, who professes to cure strictures by internal medicines alone. After he had taken the medicines for some months, the irritation, which had previously been very great, was much less, but the difficulty in making water was as great as ever, and the stream of urine diminished. He con-

sequently wrote to the doctor, who, in his reply, recommended him to introduce a bougie occasionally; thus, in his practice, belieing his assertions, that "bougies are not only useless, but injurious." If there be any *truth* in the last assertion, how comes it I would ask, that *he* recommends them? But to proceed—Mr. B. continued the medicines and the bougie for some time; but, after eighteen months' continuance under the doctor's treatment, he found that he could not introduce so large a bougie as he did when he first placed himself under the doctor's hands. He consequently gave up both medicines and bougie in despair. The first ray of hope beamed upon him from the perusal of my father's work. In reply to his communication, I informed him that, if he would come to town, I had little doubt but that I should be able to effect his cure; he accordingly came. Upon passing a bougie, it stopped about six inches and a half from the extremity of the urethra. I applied the kali, and directed him to call again in two days. He did so, and informed me he had suffered no inconvenience from the application, which I then repeated, directing him to come the next day. At this visit he informed me that he had not passed his water quite so freely as before the application. I ordered a warm bath, and castor oil. The irritation was by these means removed, and, after two more applications, I succeeded in introducing a full-sized bougie into his bladder. I continued to intro-

duce the bougie for a week, when, as he was anxious to return home, I gave him one of my bougies, and directed him to pass it once a week for a month, and then to discontinue it. This gentleman was not three weeks in town. He called upon me some twelve months after this, and I passed a full-sized bougie with perfect ease. He informed me he continued to void his urine as well as at any former period of his life.

CASE V.

Enlargement of the Prostate Gland—Partial Paralysis of the Bladder, with Disease of the Internal or Mucous Membrane of that Viscus, resulting from protracted and neglected Strictures of the Urethra.

THE Earl of ——* was recommended by his brother, the Hon. Col. ——, to consult me on a case of strictures of the urethra. Upon my waiting on his lordship at his residence, in compliance with a

* I would state, that as I did not take notes of this case, being too much occupied by my numerous engagements to spare the time, I can but give a general outline, and, I fear, a somewhat imperfect account of this most interesting case.

note I had received requesting me to do so, I found that he had been for very many years labouring under strictures of the urethra, but that it was only within the last few years that they had been troublesome, and even only within a year or so before my seeing him, that they had become so formidable as I found them upon my first visit to him, his lordship being, generally speaking, only able to void his urine guttatim; at times, however, it would flow in a very fine stream for a minute or so. The glans penis was indurated, and the external orifice of the urethra contracted; the penis in various parts was also indurated, and there was considerable hardness and swelling in the perinæum. The quantity of urine voided at each attempt was small, and the desire to do so frequent, the amount voided in the twenty-four hours being only sufficient to relieve the painful distention of the bladder, but not to empty it. The urine passed was of a high colour, and possessed a strong ammoniacal smell. No bougie could be introduced beyond the first stricture, which was about three inches down the canal; this stricture yielded to two or three applications of the kali; a second stricture was found about half an inch further down the urethra, which was also easily overcome; a third then presented itself, and this was of a most severe character, being a continued contraction of the urethra for nearly an inch. The kali was repeatedly applied, and at length the stricture rendered pervious to the passage of a bougie (size No. 6), this

being the largest that could be passed through the external orifice of the urethra, which, as I have before remarked, was contracted, appearing as though it were bound round by a cartilaginous band. Notwithstanding, however, that this sized bougie passed, the amendment in the stream of urine was not at all correspondent to it, the urine being voided in a small stream, without any apparent power, unless the bladder was much distended, so as to allow of the abdominal muscles to press upon it, when it was then evidently passed in a larger stream, and with more force. At first, not suspecting the true state of the case, I thought it might be the result of spasm in the urinary canal, arising from an inflamed state of the membrane lining it, and therefore applied leeches both before and after the bougie (No. 6) could be passed. It should have been stated, that as soon as the strictures became pervious to a bougie, profuse mucus deposit was voided in the urine, clearly indicative of the diseased state of the mucous membrane of the bladder. The prostate, upon examination per anum, was also found enlarged, and at one time I fancied fluctuation was perceptible in it, and I am not now even satisfied in my own mind whether there was or not at one time a prostatic abscess, which burst internally, and the contents discharged with the mucus secretion. I applied leeches under the idea that the difficulty now experienced was the effect of spasm, and in addition to the local abstrac-

tion of blood, I prescribed such remedies as I deemed most likely to lessen the irritation. These means, to a certain extent, afforded relief by diminishing the excitement existing in the urethra, and as his lordship's general health was disordered from the irritation of the local disease, I recommended him to go for a short time into the country, in the hope that, now the strictures were so far removed, the bladder would regain its power, and resume its healthy action, and at the same time the general health be improved. In this hope, so far as the bladder was concerned, I was however disappointed, and his lordship returned to town in much the same state as he left it; that is, the urine was voided without any power, and was still loaded with a copious mucous, ropy sediment, varying in colour, sometimes being of a white appearance, then brownish, and again slightly of a greenish hue. On passing the catheter just at first the water would flow through it with some degree of force, then dribbled, and finally ceased, as though the bladder were empty, yet on pressure being made on the pubis over the region of the bladder, more urine would pass. This fully evinced that the bladder did not completely contract so as to expel its contents. Another symptom which should not be forgotten, was, that if the bladder was completely emptied by the catheter, then it would, by its own efforts, remain so; but if it at any time became distended, which was frequently the case, dur-

ing the night, from his lordship not waking, then it seemed to lose all power of performing its functions. Upon consideration of all these symptoms, I determined first to endeavour to guard the bladder against distension, feeling assured that whilst it was allowed to become so, no progress would be made towards a cure ; to this end I introduced the catheter daily, by which I also gained two other advantages, viz., the power of injecting the bladder, and of keeping the strictured portion of the urethra open. This was persevered in for some time, but without much benefit ; I then, in addition, ordered some preparations of buchu, &c. with a view to lessen the mucus secretion that was still poured out in great quantities. Shortly after these remedies were added to the treatment, an evident amendment occurred, especially as regards the mucus sediment, which disappeared. Some few days after it had done so, I gave my consent to his lordship's taking a walk, and also a glass of wine. The next day the mucus sediment was as great as ever. The buchu and every variety of medicine was again tried for a period of some weeks, but vainly ; nothing seemed capable of arresting it, and notwithstanding everything that was employed, and the most rigid attention that was paid by his lordship to my instructions and restrictions, little or no progress was made towards a cure, and, at the same time, the strict confinement his lordship was compelled to submit to, was, in addition to the natural irritation resulting from the local

disease, producing most injurious effects on his lordship's general health, so much so that I felt considerable anxiety as to the result of the case; and consequently, painful as it always must be to the feelings of a medical man to convey such an intimation to a patient, I yet deemed it my duty so to do, in order that a second opinion might be taken on the case, as such a course could not fail (be the result what it might) to be satisfactory to all parties. In answer to my intimation, his lordship was pleased to express his entire confidence in my judgment, and his wish that I should continue solely to treat his case. Gratifying to me as such a mark of his lordship's confidence was, I confess that I felt considerable anxiety at the responsibility such a determination involved me in. In consequence of this determination of his lordship's, I now urged upon him most strenuously what I had before suggested, viz., that instead of my seeing his lordship, and passing the catheter only once a day, that I should be allowed to do so twice, as I was led to think, that, notwithstanding the daily employment of the catheter, the bladder occasionally became distended. To this his lordship at length consented, and the result was such as to exceed my warmest hopes, for no sooner was this simple addition made to our previous treatment, than the mucus sediment rapidly disappeared, and his lordship's health in every respect improved. In a few weeks his lordship was so far recovered that I

deemed it no longer necessary for his lordship to remain in town. His lordship, in compliance with my opinion, therefore left for his seat ———. Very shortly after his lordship's departure from town (I think in a few days) I received a letter from his lordship, stating that the mucus secretion had returned, but not to such an extent as before. In reply to this communication, I recommended that his lordship's medical attendant should employ the catheter and injections in the same manner as myself when his lordship was under my immediate care; this was accordingly done, and after some time his lordship was once more so far restored as to allow the discontinuance of the treatment. Some month or two after this (as I have before stated, not having taken notes of this case, I cannot speak positively as to dates), I was deeply grieved at receiving a letter, informing me that his lordship was labouring under an attack of hernia humoralis, accompanied by the most severe local and constitutional irritation. Feeling it impossible to prescribe for his lordship without a personal examination, I immediately proceeded to his lordship's seat; upon my arrival I was happy to find, that from the prompt and judicious treatment which his lordship's medical attendant had adopted, the imminent danger which had threatened his lordship was overcome. I found, however, his lordship still exceedingly ill. I learnt that the attack of hernia humoralis was supposed to have occurred from his

lordship striking the parts on the pommel of his saddle in riding. As his lordship began to improve from the attack of the hernia humoralis, the mucus sediment reappeared, and the difficulty (which had never entirely ceased) of voiding the urine increased. From time to time I continued to correspond with his lordship's medical attendant, and to suggest such measures as I thought advisable; but notwithstanding all our endeavours, his progress was far from satisfactory, and at length, feeling the responsibility of directing the treatment of the case was too heavy without I could have the advantage of personally superintending it, I respectfully, through his lordship's medical attendant, suggested that it would be more advisable for him to either place himself entirely in the hands of the gentleman who was attending him, or that he should come to town and place himself under my care, when I could with greater advantage, as well as confidence, prescribe for him. Some time after this his lordship came up to London. Upon my visiting him, and examining the urethra, I found the case had assumed a new aspect, and that the difficulty of voiding the urine was very much increased, if not totally caused by an inflammatory and spasmodic affection of the urethra; and, upon a further examination of the urinary canal with the urethral balls, I found (at that part of the canal where the broad stricture before alluded to was situated), four or five distinct irregular ridges of strictures,

which were highly sensitive, so that, immediately on the ball or catheter touching their edges, the most powerful and painful spasms were produced: this at once explained the cause of the difficulty experienced in the evacuation of the urine. I was further led to believe that between these ridges ulceration of the urethra existed, as also that some drops of urine were lodged between them; hence I determined, after some time, upon introducing a catheter, and allowing it to remain continually, so that the urine should not come in contact with the ulcerated surface of the urethra. I accordingly passed a catheter at bedtime, directing him to allow it to remain in till my arrival in the morning. Upon my visiting his lordship the next morning, I found the catheter had escaped during the night, and that considerable irritation had been induced from the retention of the instrument. Apprehensive of causing a return of the irritation in the bladder, and the mucus secretion from its internal membrane, I did not like to venture on a continuance of the treatment I had first proposed; in lieu of it, I determined upon occasionally (say twice a week), applying the kali on the urethral balls, so as to destroy the morbid sensibility of these ridges of stricture, and on the intermediate days to pass the catheter, which I occasionally allowed to remain in for from half an hour to an hour. Continuing this mode of treatment, with a little variation, for about two months, I had the satisfaction of restoring my

noble patient to such a state of health and comfort as he had not at any previous time enjoyed. I could now pass a bougie, size No. 10. I also instructed his lordship how to pass a catheter, in order that he might introduce it occasionally to prevent a relapse, and his lordship left town with every prospect of a complete restoration to health. Upon this occasion I received the following letter from his lordship:

“ August 31st, 1838.

“ Sir,

“ I enclose a draft for ———, and am truly sensible of the great benefits I have received from you.

“ Yours truly,

“ ———.”

Some time after this I saw my patient, and was happy to hear that he continued quite well, with the exception of a slight derangement in the urine, arising, in my opinion, from disordered digestion. I prescribed for him, and in a fortnight I received a letter, informing me that the last medicines I prescribed had removed all the unpleasant symptoms he complained of; and that since that period he had been able to resume his usual mode of life; and (to use his lordship's own words), “ in short, I consider myself quite well, for which I am truly grateful.”

I generally see his lordship once or twice during

the season. The last time I saw him I examined the urethra; there was no return of the permanent stricture, but there was a tendency to spasmodic irritation. I recommended the introduction of a metallic bougie, he was however prevented adopting the treatment in consequence of being suddenly called into the country. But I presume the irritation has not increased, or the contrary would have been made known to me.

CASE VI.

An Impassable Stricture removed by eight applications of the Kali.

July 26th, 1834.

Mr. J. J. called to consult me on his case of stricture, under which complaint he had laboured between two and three years. He attributed its origin to a badly cured clap. I introduced a bougie of a middling size, when it reached the bulbous part of the urethra, its further progress was stopped, nor could I succeed in passing through this stricture the smallest bougie. The stream of urine was as fine as a thread, and the inclination to void it constant; and when in the streets most distressingly inconvenient, in consequence of the length of time it required to

empty the bladder. I applied the kali, from which he experienced no particular pain or uneasiness. He called on me in two days, when I again applied the kali. But, to be brief, it took in all eight applications to remove the stricture. After the last application he lost about a table-spoonful of blood. I directed him to take a warm bath, and prescribed an anodyne mixture, and some castor oil if necessary. He called on me again in two days' time, and told me that he had not had any return of the bleeding. He also informed me that he made water as freely as ever he did in his life, and that the only inconvenience he felt was a slight scalding when doing so. I ordered him to continue the medicines, and to take another warm bath. I saw him two days after, when the scalding had left him. I introduced a full-sized metallic bougie (No. 10) with the greatest ease, and I continued to do so every other day for a week, when I was surprised by his not calling as usual; however, in a few days I received the following note, which explained the cause of his apparent neglect.

“Mr. John T. J. presents his respectful compliments to Mr. Courtenay, and begs to say that an unexpected detention out of town is the cause of his not having attended Mr. Courtenay during the last few days; he is happy in the meantime to say, that no unfavourable symptoms have appeared to lead to a doubt as to the fortunate results of the kind and successful treatment of the complaint by Mr. C.”

CASE VII.

Severe Strictures, complicated with a Tumour in the Perinæum, Cured in a month with the Kali.

Mr. P., of Liverpool, wrote to me, stating his case, and requesting to know if I thought I should be able to effect his cure should he place himself under my care, and at the same time begging I would send such instructions and medicines as I thought his case required. I immediately replied, informing him that unless he came up to town, I could be of no service to him, and he accordingly came.

Upon examining the urethra, I found a stricture about seven inches down the canal, through which it was impossible to pass the smallest-sized bougie: there was also a considerable tumour in the perinæum, which was most painful to the touch. About two years before applying to me this tumour first appeared, it was then exceedingly inflamed, and caused considerable irritation in the surrounding parts, as well as nearly a total retention of urine. A surgeon of Liverpool was consulted, who considered, after examination, that the tumour was caused by a stone having escaped from the bladder into the urethra, and which was working its way out through the perinæum, he consequently advised that an operation should be performed for its extraction, to which the

patient consented. Another surgeon of eminence was called to witness the operation; the patient was bound on the table, and the instruments brought out, when the last-named gentleman, whilst some necessary preparations were being made, was induced to examine the tumour and urethra, in consequence of which, he gave it as his opinion, that there was no stone, and that the tumour was the result of inflammation brought on by the irritation of strictures. After a further consultation, it was thought best to defer the operation until some more decided symptoms appeared. Leeches, warm fomentations, and poultices were applied, and, after some few days, the tumour burst, and there was a great discharge of pus, but no stone: poultices were applied for a considerable period; the sore sometimes healing for a few days, and then again breaking out. After some months it healed altogether, leaving the tumour in its present hard and indolent state. The urine now flowed in an exceedingly small fine stream, indeed it might almost be said to dribble away. He cannot make water in the erect position, but is compelled to place himself in a sitting posture; during his journey, in consequence of the time it requires to empty the bladder, he had tied a sponge to the extremity of the penis to receive the urine. Such was this gentleman's painful state when he first visited me. I applied the kali upon his next visit, it produced no particular symptoms worthy of notice.

After four applications he began to expel his urine with much more freedom, and upon introducing a very small gum catheter, I was enabled to pass it into the bladder. From this time I was always enabled to pass an instrument through the stricture. After several more applications, I succeeded in introducing a full-sized metallic bougie (No. 10). He now made water as freely as at any former period of his life, and while in the erect position, which added greatly to his comfort, inasmuch as it allowed him to relieve the bladder in the streets, which before, in consequence of the position in which he was obliged to place himself, he could not effect. I should state that whilst I was attending to the strictures, he had, under my directions, been applying various ointments to the tumour. The first which I recommended was, one composed of ext. bellad. ung. hydr. and camphor, but this not appearing to have much effect, I prescribed the ungt. hydriod potassæ. The beneficial effects of which were soon apparent by the gradual diminution of the tumour, and by the time the stricture was removed there was but slight remains of it, it had nearly disappeared. This gentleman was only four weeks in town, and upon his leaving me, I gave him a bougie (No. 10), and directed him to introduce it occasionally for two months.

CASE VIII.

*An Impassable Stricture of many years' duration
removed by three applications of the Kali.*

R. M. J., Esq., a gentleman of fortune, residing in Yorkshire, was recommended by one of my old patients to consult me on his case of stricture. He consequently called upon me, accompanied by the gentleman who had advised his placing himself under my care. He informed me that he had laboured under great difficulty of micturition for some years, if I recollect rightly, fifteen; and that about a year since he had suffered an attack of retention of urine. Upon this occasion, his family surgeon attempted, but without success, to relieve him by the introduction of a catheter. The retention was ultimately, however, relieved by other means. He says, that the pain he endured from the attempt to pass the catheter was so great, that notwithstanding he experienced great and increasing difficulty in micturition, he could never make up his mind to submit to any operation. Having heard these particulars, I proposed to examine the urethra, but I could not get him to consent, so great was his dread of the pain he anticipated he would suffer from the introduction of a bougie. He called upon me two or three times during the next fortnight, but never had the courage to allow me to examine the urethra with an instrument. At length,

by the persuadence of his friends and myself, he was induced to submit to an examination. Upon introducing an instrument, I found a stricture at the junction of the bulbous with the membranous portion of the canal. I could not pass any instrument beyond this; a slight bleeding was caused by the examination. After three applications of the kali, I succeeded in passing a full-sized metallic bougie, and the only remaining symptom of disease in the urethra was the force with which the instrument was held in the canal after it was passed. In order to overcome this, I allowed a catheter to remain in the whole of one night. From that time all spasmodic symptoms disappeared, and both myself and the patient could introduce, with the greatest facility, a full-sized instrument. The time occupied in the cure of this case was only three weeks.

A gentleman who had been on a visit to this patient called upon me a few days ago by his desire, to inform me that he continued perfectly well; indeed, the messenger said, he was desired to say that Mr. J. thought he passed water more freely than at any former period of his life.

Eleven of the following cases were treated by my father.

CASE IX.

Stricture of eighteen years' duration Cured by the Kali, after the method of Dilatation had failed.

During my stay on the continent, I was consulted by an English gentleman, in a case of stricture, which he had laboured under for eighteen or twenty years. The greater part of this time, he had been under the care of surgeons of considerable eminence. They attempted a cure upon the principle of dilatation; but at no period could they pass a bougie, except of the smallest size. Mr. T. Blizard attended this gentleman for years. He certainly succeeded in passing a larger bougie than any of the practitioners who had preceded him: but the pain of these attempts to the patient was so violent, that his forehead was covered with globules of perspiration all the time the operation of introducing the instrument was performing, and during its continuance in the passage. This case serves to illustrate how greatly superior is my plan of treatment over the process of dilatation. When I first examined my patient, the smallest sized bougie could not be passed, and he was suffering great difficulty and pain in voiding his urine, being obliged to rise ten or fifteen times in the night for that purpose; suffering also pains in the pubes, the small of the back, and down the thighs, and feeling his health sadly im-

paired. To the first stricture, about four inches down the urethra, I applied my means of cure six times before it was removed; and to the second, an equal number of applications was made before it was also removed; and to the third four times before a metallic bougie (size No. 10) would pass; this bougie was of the natural diameter of this patient's urethra. During all these operations, the little pain he suffered was, he said, comparatively nothing to what he endured under the treatment by dilatation. No hemorrhage followed any of these applications. The pain and spasms which occurred during his cure, were relieved by the frequent use of the warm-bath, anodyne, antispasmodic medicines, &c.; the bowels were constantly kept open by mild saline cathartics. He found considerable benefit from the use of an anodyne draught, as follows: *R. Pul. ipecac. comp. gr. xvi. syr. simplex 3iss. aq. ammon, acetat, 3iv. julep. camphora. 3ss. aq. menth. virid, 3iss. haustus hor. somni sumend.*

As he could now pass his water better than for these last twenty years, and as all the irritability and pain in the urethra and bladder were entirely removed, I advised him to commence a course of tonics, to recruit his lost strength and spirits. After having recovered his health, he removed to another part of the continent. On the 15th of July, 1821, I received the following letter from him: he has stated the case himself, and I shall give it in his own words:—

“ July 15, 1821.

“ I have, for these last eighteen or twenty years, been afflicted with inveterate strictures, and consulted some years since, the late Mr. Cruikshanks; but for the last fourteen or sixteen years have been under the care of a surgical friend, equally eminent. It is true that, whilst strictly following his directions, if I did not actually get the better of it, I kept the complaint in subjection, until I came to the continent, when, as I was removed from his advice, my complaint got the mastery, to a most lamentable degree. I could not pass the smallest bougie; scarcely the catgut: a considerable discharge of thick glutinous matter took place, and at times I could not contain my urine. As at that time you were in attendance, professionally, in my family, I in a happy hour applied to you, for in less than a month the discharge subsided, the urine was contained, and in four months I could pass a tolerable sized bougie. Ever since I have pursued the treatment you directed, and am (thanks be to God and your skill) in a state of perfect health.

“ Believe me to be,

“ My dear Doctor,

“ Your truly obliged friend,

“ G. H.”

CASE X.

Stricture of the Urethra, causing Impotence, Cured by the Kali.

A Colonel in the army had suffered under strictures nearly seven years: he had supposed himself cured by Mr. Heavside about three years before I saw him. The Colonel had been married about four years; in the first year of which he began to feel symptoms of the return of the strictures. The stream of urine was daily diminishing, and the frequent desire to pass it was becoming extremely troublesome; the constant irritability of the bladder, and the painful sensations of the whole organs of generation, had greatly debilitated them. He applied to his former surgeon, who advised the removal of the strictures by lunar caustic, which was applied several times; but so far from increasing his capability to void the urine, the stricture contracted more after every application, till at last the finest bougie could not be passed without great difficulty. In this state he applied to me, accompanied by his father-in-law, who was extremely anxious to know if this state of the stricture was the cause of his son's not having had any children: they were particularly unhappy on this subject, as a very considerable property would go from the family in case of their having no

issue. I found that, during the sexual intercourse, no semen passed the external orifice, but whilst the penis was in its non-erect state, then the semen oozed out: there could be no doubt that, under such circumstances, it was almost impossible he should have children; but that, as soon as the stricture was cured, or so far dilated, as to permit a free exit for the semen through the external orifice, then the obstacle being removed, it was most probable that his and his family's anxious wishes would be gratified. He said he was so miserable and so anxious to obtain relief, that he begged me immediately to commence my plan of cure. No symptom occurred that required any particular attention. After four applications, I passed a metallic bougie (No. 11) through the stricture; about two inches further another stricture appeared, which two applications removed, and the bougie was passed into the bladder with facility. In a fortnight he himself could pass a metallic bougie readily into the bladder. His urine flowed in a copious stream, and the painful sensations, which before had so tortured him, entirely left him; he was only four weeks under my care, before he was completely cured. I ordered him steel, and other tonics, to improve his general health, which had suffered considerably, both from bodily illness and anxiety of mind. On his return to the country, I furnished him with a case of metallic bougies (Nos. 12 and 13), which I directed him to introduce

twice a week for the first month; after that, once a fortnight, which might then be sufficient. About eighteen months after this, the Colonel came up to town, and informed me he was quite well, and enjoyed all his wonted good health and spirits, and that his lady had been safely delivered of a very fine boy. I have seen him several times since, and he continues in perfect health.

CASE XI.

Stricture of eight years' duration Cured by the Kali in three weeks.

Captain R. of the Royal Navy, had been afflicted with strictures for eight or nine years before he applied to me. He had been under the care of Mr. Cline, and several other surgeons of equal eminence, who had attempted his cure by the application of the lunar caustic, without success. He had suffered under several attacks of suppression of urine while on board his ship; and, in one instance, his life was despaired of; but by perseverance in the usual means of relieving suppressions, the urine began to flow in a very fine stream; in this state he remained for three weeks, when he made water by drops only. His surgeon endeavoured to pass the finest bougie, but

could not succeed. When his ship put in at Portsmouth, he got leave of absence for a month, to place himself under my care. His situation was now truly distressing; he was obliged to attempt to make water every quarter of an hour, with much straining and pain in the region of the pubes; his rest was constantly disturbed by being obliged to get up twenty or thirty times in the night to void his urine. On examination, I found a stricture at five inches and a half from the external orifice; through which I was unable to pass one of the finest bougies. After four applications, I passed a metallic bougie (No. 10) about two inches further, when it was stopped by another stricture. It took five applications to destroy the second stricture, after which I was able to pass a metallic bougie (No. 10) readily into the bladder, where it had not remained above ten minutes, when he felt a desire to evacuate. He withdrew the instrument, and immediately his water flowed copiously and rapidly, and, as he declared, more so than for the last ten years. He took an anodyne draught on going to bed. I called on him next morning, when he told me he had passed his water after I left him, attended with a slight scalding; he had slept soundly all night, quite undisturbed by any inclination to pass his urine. He took the next day a dose of castor-oil. On the succeeding day I passed the bougie easily into the bladder; but in my attempting to withdraw it, I was stopped by one of the most

violent spasmodic contractions I ever met with in my experience. It seemed as if the instrument was firmly grasped by some invisible hand. I made no further immediate effort to withdraw it, lest I might injure the parts, but suffered it to remain half an hour; when the action having exhausted itself, it was drawn out with little or no resistance. His general health had been greatly injured by his severe suffering from these obstinate and dangerous strictures; I therefore ordered him to take ten or fifteen drops of the *Tr. ferri muriat*, three or four times a day in a glass of bark mixture. Three days after I called on him to introduce the bougie. He had continued to make water with perfect freedom during those three days. I now passed a metallic bougie (size No. 11), which remained in about twenty minutes, and was withdrawn without any return of the spasms. Next day I introduced one (size No. 12), which was about the natural diameter of his urethra. After it had been in twenty minutes, I withdrew it; but the spasmodic action was renewed; yet by no means so violently as before. In three weeks from the first visit he was cured, and passed his water as well as he ever remembered to have done. It is six or seven years since he was cured. I have seen him frequently of late, and he declares that he never passed his water better than he does now, and had not enjoyed such general good health and spirits at any former period of his life.

CASE XII.

Stricture of eight years' duration Cured by the Kali.

Captain P. of the Royal Marines, had symptoms of stricture eight years before I saw him. During two years previously to his calling upon me, he had made water eight or ten times a-day, and nearly as often in the night, with violent straining, difficulty and pain, and in a stream so very small, as to require full twenty minutes to empty his bladder. He had also a very troublesome gleet; on passing a common bougie to the stricture, he complained of pain and great irritability; but by repeating its use for two or three days, these symptoms subsided. He had two strictures, one five inches, the other about seven, from the external orifice. The smallest bougie could not be passed either into or through the strictures. I therefore determined on the immediate application of my remedy to the first stricture. He felt some pain, and on passing his water shortly afterwards, suffered considerable scalding; nor did his urine flow quite as freely as before the application. To alleviate these symptoms, I ordered him the warm bath, an opiate at night, and a dose of castor-oil in the morning. I saw him next day, when the pain and the scalding were no longer felt, and he made water

much the same manner as before. The day following I proceeded in my cure, when he felt a slight pain, which soon subsided. I saw him two days after ; I passed a bougie, which, with some pressure, went through the first stricture to the second ; on withdrawing it, about a table-spoonful of blood followed, accompanied by irritation and pain. The warm bath, opiate, and castor-oil, were ordered to be repeated. He called next day, and informed me, that he had, about seven o'clock on the previous evening, been affected by a violent shivering fit, but that, on taking the anodyne draught and going into the bath, he found himself much relieved, and had enjoyed a comfortable night. I introduced a common bougie to the second stricture, with tolerable facility, which I repeated the following day, and with perfect ease. The day following, I directed my attention to the second stricture, which was by far the more obstinate, as it required no less than five applications for its annihilation.

Two days after the last application, I passed the same sized bougie into the bladder, that I had applied to the first stricture, and it remained in about a quarter of an hour. On withdrawing it the water flowed in a full stream, and the bladder was evacuated in three minutes of full three pints of thick and turbid urine. When the urine ceased to flow, an hemorrhage succeeded, and I calculated his loss of blood at about three ounces and a half. The hemorrhage being stopped, I advised the Captain to return in a

coach to his coffee-house, and keep himself quiet for the rest of the day. About ten at night he sent for me in great haste, and when I arrived, he said he had not evacuated since he was with me in the morning, and the shivering fit was so violent, that he was obliged to lay hold of the bed-post to prevent his falling. He had made many fruitless attempts to discharge his water. I requested to pass a bougie, as I did not doubt it would soon relieve him. In passing it, a little before coming to the stricture, it met a slight obstruction; but pressing it on, it quickly surmounted the difficulty, and went directly into the bladder; a mass of coagulated blood, which had completely stopped the passage, issued with the urine, on withdrawing the instrument. This evacuation relieved him from the agonies he had felt. I ordered him a bark draught and forty drops of tincture of opium, to be taken at bed-time. As I was leaving him, he said he felt an inclination to make water, I desired him to attempt it, and staid to observe if the hemorrhage returned; he voided a considerable quantity of water, without a drop of blood following. On visiting him the next morning, I learned that he had passed a good night, having no necessity to rise to make water from going to bed till his getting up. He felt quite refreshed by this undisturbed night's rest, which he had not enjoyed for four years. Being much debilitated, and his general health greatly impaired, I prescribed him a bark mixture and sul-

phuric acid, a wine-glass full, four times a day; and after taking this during a week, his strength, appetite, and spirits were materially improved: he could pass a metallic bougie (No. 12) readily into the bladder, and had attained a facility in introducing it, that made him a master of this necessary instrument. Having been three weeks under my care, he was obliged to return to his duty on board his ship, when he wrote from Portsmouth, informing me that he had recently discontinued the tonics, as his health and strength were quite restored, and his water flowed in as large a stream as he ever remembered. I have not heard from or seen this gentleman since his cure.

CASE XIII.

Stricture with Urinary Fistula Cured by the Kali.

O. B., Esq., came from Ireland to London, on purpose to place himself under my care. He had been afflicted with strictures in the urethra for upwards of nine or ten years. The lunar caustic had been repeatedly applied to them by surgeons of great respectability, but without the desired success. On examination, I found he had two fistulous openings on the pubes, and a considerable one a little beyond

the root of the penis ; with the scrotum puckered up and adhering to the urethra. Through this latter opening, most of the urine flowed. He had another in the perinæum ; and he had also one just anterior to where the vessels, bringing the semen and the milky fluid from the prostate gland, perforate in common the urethra, through which the semen frequently oozed. The urine might be said to pass through these openings as through a cullender. No urine had been voided through the natural canal for five or six years. The penis lay upon the scrotum in an œdematous state ; the discharge from all these openings was so great, and so offensive, that he was obliged to carry napkins in his pocket, to apply to the parts for the absorption of the urine and the discharge ; these, from their offensive smell, he was obliged to remove almost hourly. This extraordinary case had so many difficulties to surmount, that I entertained some doubts of ultimate success ; but as he had come from such a distance, I was desirous he should not return, without making some attempts to relieve him. Besides I had experienced such surprising effects from my system, that I did not altogether despair of affording him a very considerable relief if not a perfect cure. I immediately applied my remedy to the first stricture, which I repeated every second day ; and it required ten applications to remove. I passed, at this time, a metallic bougie of the size No. 8, and in two days was able to pass one of the same kind, No. 10.

I had now penetrated to the second stricture, which I overcame by five applications; but as the parts were more irritable than at the first stricture, I was obliged to prescribe the warm bath, opium, and a dose of castor-oil, which soon relieved him from pain and inflammation. In this manner I proceeded until I had removed each stricture; a moderate sized bougie then passed fairly into the bladder: on withdrawing it, the urine flowed from the external orifice of the penis, which it had not done for the last five years. I then passed a bougie a size larger with tolerable ease, suffering it to remain in for half an hour. On the following day I passed a gum elastic catheter with a small silver plug at the end, which he could readily remove as occasion required: through this instrument his urine passed for a week or ten days, when I introduced a similar catheter, of nearly the natural diameter of the urethra. In less than a month, the discharge from the fistulous openings considerably diminished; the two openings on the pubes were healed; the scrotum, which was hard and greatly swelled, became softer, and much lessened in size. He continued his evacuations through the gum elastic catheter; little or none then passing through the fistulous openings. The œdematous swelling of the prepuce and glans penis was nearly gone, and the penis began to recover its natural appearance and warmth. This plan was persisted in for a month, when all the fistulous openings were

healed, except the largest, through which a few drops of urine still escaped; but the discharge was so trifling, that a small pledget of lint, kept on by a piece of sticking-plaster, was sufficient to absorb all the urine and discharge of twenty-four hours. The gum elastic catheter was now laid aside, as he passed his urine very well through the natural channel. For the last month he had been taking large doses of steel and cinchona, by which his general health was much improved; so much, indeed, that he declared he had not enjoyed such health and spirits for many years; and that as no further operations were necessary, he should return to Ireland. From the moment of his placing himself under my care to his taking his leave of me, was four months and a few days.

I furnished him with several gum elastic bougies of the proper size, directing him to introduce them every day for two months, letting them remain half an hour or longer, if no pain or irritation was excited; but if the contrary, to withdraw the bougie immediately; and if they were considerable, to have recourse to the warm bath, opium, and castor-oil; and to wait until all such symptoms were subdued, before he recommenced the use of the bougie.

Three years afterwards, he wrote to me from Waterford, expressing his pleasure and happiness, informing me, that he continued to pass his water with perfect freedom; that the last fistulous opening

had been a long time healed ; and that he generally passed a bougie once a week or fortnight, to retain the facility of introducing it, and to satisfy his mind that there was no return of his complaint.

CASE XIV.

Stricture of fifteen years' duration Cured by the Kali.

A proprietor of one of the Hackney and Homerton stage-coaches, aged about forty-seven, had suffered by a stricture fifteen years, and he had been under the care of several surgeons at Hackney ; a respectable hospital surgeon in London had attempted, unsuccessfully, to cure him by the lunar caustic. During the last four years he had had a continual gleet, with pain in the pubes and bladder ; his urine constantly dribbled from him involuntarily, by night as well as by day, so that his bed rotted under him ; and was so offensive, as to oblige him to have a fresh one every six months. On examination, I found a stricture about four inches down from the external orifice, through which the smallest sized bougie could not be passed. I therefore determined to proceed in my usual way ; he felt very little pain from the application. He was desired to call again two days after ; this was on a Friday, but I heard nothing

of him till Monday morning early; when a messenger came to inform me that Mr. H. had kept his bed ever since Saturday noon; he said he was in great pain, with constant inclination and inability to pass his urine, that after he left me on Friday, he had imprudently driven a stage coach to and from Homerton, till late that evening. It was the severest cold day remembered for many years; the consequence of his thus exposing himself the whole day, was the suppression of urine. I desired him to be brought to town wrapped in blankets. In two hours I had my patient in lodgings opposite me, where he underwent great pain; his pulse was full and quick, upwards of one hundred, a considerable tumour was also formed in the perinæum. I immediately ordered eighteen ounces of blood to be drawn from the arm. He was put into a warm bath, wherein he remained twenty minutes, during which he felt less pain and inclination to make water. Castor-oil was administered every hour till it operated. Fomentations and a large linseed-meal poultice was applied, night and day, to the tumour. At night the warm bath was repeated, and a full dose of opium on going to bed was ordered. The next morning I found him still feverish, and the pain and inclination to pass his water but little abated. I ordered twelve ounces more blood to be taken from the arm; and as the castor-oil had not operated sufficiently, I ordered a clyster of castor-oil and

cathartic salts. At noon I visited him again; the clyster had operated very well, and he had had four or five copious motions. The fever had evidently abated, and the pain and inclination to make water were less frequent. The fomentations and poultice were continued. At night the opiate was repeated. About seven, next morning, I was called up by his nurse, to inform me that the tumour had just broken. On examining the parts, I found a little *pus* oozing from a small opening, which I enlarged, and about half-a-pint of matter, tinged with blood, issued. While I was gently pressing the abscess to force the discharge of the whole matter, the urine began to dribble through the opening, and in a few minutes it came out in a fine thread-like stream, and he evacuated about three pints. This immediately removed all pain and inclination to pass his water. The abscess was dressed with common ointment, with a large poultice over it. I passed a small bougie down to the first stricture, slightly pressing the point against it; in a minute it went through; and the point was seen in the opening of the abscess. He made his water partly through the opening in the perinæum, and partly through the external orifice. He now constantly improved, and in ten days was sufficiently well to return to Homerton. I ordered him a bark mixture to recruit his strength, and to let me see him in a fortnight to complete his cure. At the expiration of that time he came; the abscess in the perinæum

was healed, and he had passed a metallic bougie (No. 8) through the first to the second stricture. There were no indications that seemed to forbid the use of my remedy. It was, therefore, applied to the second stricture. The pain was trifling; but it required four applications before I was able to pass a bougie through it. I had hoped to get into the bladder, but was stopped by a third stricture, about an inch further. It took two applications to remove this stricture, when a metallic bougie (size No. 10) passed into the bladder. In a week I succeeded in passing another (size No. 11). He now voided his water in as full a stream as he ever remembered. He continued to attend me for a fortnight, to have the bougie introduced, and to be instructed in the use of the metallic bougie, which I wished him to pass regularly every day, or every other day, for a month; so that the strictured parts should not heal upon less than the natural diameter of the urethra. It is now more than four years since he was cured. I saw him a short time since: he said he continued to pass his water as well as he ever did in his life, which now rendered him quite comfortable, whereas he had been in perfect misery, until he placed himself under my care. He begged I would publicly make use of his name to that effect.

This patient, during the greater part of the fifteen years he had suffered under strictures, was obliged to attach a horn to the end of his penis to receive

the urine, which constantly dribbled from him, day and night. The misery he experienced for so many years was indescribable, he being obliged to drive his stage through all weathers, and compelled to descend, during his journey, several times to empty his horn. He hardly recollected a single hour, which he could say he passed without more or less pain, during the last seven years, previously to his applying to me.

CASE XV.

Stricture Cured by the Kali after the Lunar Caustic had failed.

T. R. Esq., a respectable merchant, had been afflicted with strictures for fifteen years before I saw him. He said he had been under the care of Mr. Home, about six years ago ; that he continued under his management for nearly eighteen months ; and that during that period, the lunar caustic was, he verily believed, applied nearly sixty times. He had suffered great pain and torture in the various applications deemed necessary to remove the strictures ; but at no time was Mr. H. able to pass a bougie into his bladder, except once—a very small one ; and although innumerable attempts had afterwards been

made, in the hope of again succeeding, yet neither Mr. Home, nor any of the many gentlemen whom he had consulted, were able to pass one, even of the smallest kind, into the bladder. He was now, and had been for many years unable to pass his water, but in the smallest stream; he was frequently suffering under partial, and sometimes total retention of urine, and on these distressing recurrences, he felt the greatest apprehensions for his life. His constant inclination to pass his water was so great, that he could not walk a hundred yards without making the attempt; and in the course of the night was obliged to get up twenty or thirty times for that purpose. The pain and constant uneasiness in the bladder, urethra, pubes, and indeed through the whole organs of generation, had so enfeebled and broken down his constitution, as to render him incapable of business; and his nervous system was in such a state of irritability, that any sudden noise, such as opening the door unexpectedly, threatened him with a fit. His nates were covered all over with scabaceous eruptions; such afflicting circumstances rendered his life quite miserable. I requested him to permit me to pass a bougie, to ascertain the state of the urethra, and enable me to form a more correct opinion of his very interesting case. He did not object, but just as I was about to introduce the bougie, he was seized with violent trembling, and was so much agitated, that I forbore to make the examination. He apolo-

gized, by assuring me, that he was so nervous that he wanted courage to allow the attempt to be made; but that to-morrow, or the day following, he would call, when he hoped for greater fortitude. He called three days after, saying he had a sufficient stock of courage and confidence, and that I might make any examination as soon as I pleased. On passing a bougie of the natural diameter of his urethra, about four inches and a half, it stopped. I tried bougies of every kind, and of the smallest size; but I could not pass any one into or through the stricture. I therefore determined to apply my remedy in my usual way. He experienced, at the time, little or no pain. But if any spasms, or irritation of the urethra or bladder came on in the course of the day, I directed him to go into a warm bath, take an opiate at night, and in the morning a dose of castor-oil. Two days afterwards he called again; he had experienced a slight pain, with scalding, when his water dribbled from him; but the warm bath, and other remedies, had removed them. I passed a bougie down to the stricture, but there it stopped; no hemorrhage followed this attempt; the point only was a little tinged with blood. The warm bath and opium were ordered to be repeated. Next day I applied my remedy for the second time; and every second day the application was repeated. In this plan I persisted, until the strictures, three in number, were removed. During the progress of this cure, which occupied about two

months, the patient experienced no untoward symptoms; little or no hemorrhage occurred, although the bougies were passed, as soon as my remedy had acted on the strictured part. The pain was trifling, compared with what he had undergone by the application of the lunar caustic; the hemorrhage, too, was then at times very alarming; but now little or no blood was lost.

The first stricture required four applications before it was removed. The second seemed the most obstinate, as it required six; the last only three. When this last was also removed, a metallic bougie (size No. 12) passed freely into the bladder; and he was astonished, not believing it possible, that an instrument of that size had entered his bladder. On withdrawing it, the urine flowed in a copious stream, and was propelled with such force, as to shoot across the room in which the operation was performed. I now instructed him in the use of the bougie, of which he soon became master, and could introduce it himself with great dexterity. I now prescribed for him large doses of steel, combined with other tonics and with aromatics, the use of which he was to continue for two months: at the same time, however, he was requested to call once a week, to acquaint me with the progress of his cure. At the expiration of the two months, the scabaceous eruptions were entirely gone; his general health was wonderfully improved, and his strength and vigour restored.

It is about nine or ten years since this gentleman was cured. I met him four months ago in the city, and he was perfectly well, and able to ride his horse every day from his country-house to town, whereas he had long previously been unable to bear the motion of his carriage. I advised horse exercise with caution.

CASE XVI.

Stricture accompanied by frequent and violent attacks of Retention of Urine Cured with the Kali.

A gentleman, aged forty, applied to me in a case of retention of urine. He had been afflicted with strictures for above fifteen years, which subjected him to frequent retentions. They had lately returned so often and so alarmingly, and the pain and distress he suffered were so extreme, as to excite strong apprehensions in his mind that some of these recurrences would prove fatal. I attempted to draw off the urine by means of the finest sized bougie, but it could not be passed. I did not continue my efforts, lest I should increase the irritation and inflammation of the urethra and bladder. I ordered a copious bleeding, a warm bath, and a clyster of salts and castor-oil. After the operation of the enema, he took

an anodyne draught. Having found considerable ease from these remedies, and the irritation and inflammation being much abated, I judged this a favourable opportunity to renew my endeavours to pass the bougie, which I did, and with some difficulty it entered the bladder, and remained in about ten minutes, when his inclination to discharge his urine was so pressing, that he withdrew it. The urine came out in a small stream, and relieved the bladder from tension and pain. The warm bath and anodyne draught were repeated, and next morning the enema, which emptied his bowels, and his ability to void his urine was considerably improved. He persisted in cooling and sedative remedies, until all the irritation and inflammation of the urethra and bladder had entirely subsided. I then proposed my peculiar plan of treatment, to which he readily consented. On minutely examining the urethra, by passing one of the smallest of the silver balls recommended by Mr. Bell, I distinctly felt the instrument to bound over three strictures. To the first stricture I applied my remedy five times, before a bougie, of the natural diameter of the urethra, could be passed. The second required four applications. The third and last were removed by two applications only; when the metallic bougie (No. 10), of the natural diameter of the urethra, which was rather small, passed readily into the bladder. There occurred nothing remarkable during these applications: little pain, and no hemor-

rhage followed. The urine now flowed in a good stream, but was very turbid, and of a most disagreeable odour. I attributed this to the long standing of the strictures and the frequent retentions, which impeding the passage of the urine, occasioned the bladder to act with augmented force, to overcome the resistance. Under such circumstances, strictures are kept in a continued state of irritation and inflammation; which, extending to the bladder, gives rise to the increase of the frequent desire to make water; and from the same cause the urine frequently becomes turbid and offensive.

In this case, the inflammation of the bladder had been so considerable, that *pus* was secreted from the mucous coat, which was discharged with the urine.

He was now perfectly free from pain; and instead of being obliged to get up ten or twelve times at night, to void his urine, he seldom needed to rise more than once; but as his urine still continued in the unpleasant state mentioned, I ordered him a dose of *uva ursæ*, three times a day; and in three weeks the urine was perfectly clear, and of its natural odour.

The constitution of this patient had suffered much from the long duration of the strictures, and the many retentions of urine which had afflicted him during the last ten years. I therefore desired him to pursue a course of tonic medicines for two months and to go into the country, so that, by the assistance of good air and moderate exercise, his health and strength might be

re-established. I saw this gentleman about three months back, when he informed me that he continued quite well, and had never enjoyed better health in his life. Since the removal of his strictures, he has been well without interruption ; and he was pleased to say that he owed all the enjoyments of life to the skill and attention with which his cure was performed.

CASE XVII.

Four Strictures removed by the Kali in a month.

A gentleman who held an official situation under Government, had been afflicted with strictures for several years ; he had been under the care of various professional gentlemen, who, from time to time, relieved him by the use of the common bougie. He had used Daran's bougie for eighteen months, without experiencing any particular benefit, more than from the common bougie ; he had also been under Mr. Whately ; but his strictures continued to contract the urethra, notwithstanding all his attempts to dilate them. For the last twelve months his life had been a burden. He made water seventeen or eighteen times a day, with great pain and violent straining ; so much so, that during the time he was passing his water, his forehead was covered with large globules of perspiration, pro-

duced by the excruciating torments he underwent. He had also a considerable discharge from the urethra; he felt great pain in the perinæum, and down both his thighs, and his whole frame was extremely debilitated. On introducing a very small bougie into the urethra, I found it entered the first stricture a little way; it then stopped; in half a minute I pressed it forwards; it seemed to jump, as it were, over a ridge and then it stopped again, and could be pressed no further. The time taken in passing this very fine bougie, rendered it impossible it should preserve firmness sufficient to overcome the obstruction opposed to it by the other strictures, the warmth of the parts soon softening so very fine a bougie. I therefore took one of the smallest silver balls, fixed on a long wire of the same metal, recommended by Mr. Bell; and having dipped it in oil, I passed it, with some difficulty through the whole strictured part, which extended full three inches. On withdrawing it, I felt distinctly, no less than nine or ten ridges, over which the little ball seemed to bound. A trifling issue of blood followed, but without any other symptom. The next day I got one of these balls, which had a small hole bored on its posterior part, near its conjunction with the wire. I filled up the cavity with my remedy to the brim. I then dipped it in oil, and passed it beyond the strictured part; when it had passed all the ridges, I drew it back; and again introduced it, and withdrew it; on

every return, each ridge was struck by the part of the ball where the kali was deposited. After this operation with the ball had ceased, he observed that he felt a slight burning sensation, but not acute pain. He made water shortly after with much less straining and pain, but there was a sensation of scalding. I ordered a warm bath, an anodyne draught at night, and a dose of castor-oil in the morning. I requested him to call again in two days. When he came, he said he had felt much easier after taking the bath, and had not passed two nights more comfortably for many months. The ball was then armed with the means of cure as before, and was introduced and returned three times, and then withdrawn; no particular symptoms followed worth notice. After two days it was again applied as before. The next day he called to say he had passed his water better than he had done for months. I examined his urethra, and passed a metallic bougie (No. 9) with tolerable ease through all the strictured part; but it would not enter the bladder. On withdrawing it, about half an ounce of blood followed. He felt a trifling pain, which ceased before he left me. The bath, anodyne, and castor-oil were repeated. He called the next day; he had experienced another improved night, and his water issued with very little straining or pain; but not in so large a stream as it had done before. This was easy to account for, there being another stricture to be removed, before he could be able to evacuate in a full and natural

stream. I now passed a metallic bougie (No. 10) up to the stricture which I had not yet touched with my remedy. I suffered it to remain in for half an hour. Next day I passed one of the size No. 11, with ease up to the remaining stricture. As the parts seemed perfectly free from irritability or spasm, I passed the gum elastic canula; and the armed bougie was introduced through it to the stricture, where it was kept with a slight pressure for a minute, and then withdrawn. He called two days after this, when I introduced a metallic bougie (No. 9) up to the stricture, and with the slightest pressure it slipped through the stricture into the bladder. He came the following day, and informed me that early in the evening, he had been attacked with a most violent shivering fit, which obliged him to go to bed, and that, when in bed, he took a glass of warm brandy and water. On the morning he called, he had passed his water in a larger stream than for some years past, without straining or pain, only a slight scalding was experienced. In a week I could introduce the metallic bougie (No. 11) which was about the natural diameter of his urethra. I instructed him in the use of the bougie, which he soon acquired; and he was finally cured after being under my care about a month. He was directed to use the bougies, and to persevere in the tonic remedies for a month; at the expiration of which time I requested to see him again. When he came, he said he was happy to inform me that the

gleet was entirely gone; that his water never flowed better or more fully; and that his general health was surprisingly improved. He intended, however, to continue the use of the bougie as directed. I have not seen this gentleman since his cure.

CASE XVIII.

Two impassable Strictures Cured by the Kali.

A gentleman applied to me in a case of debility, who informed me that he had been, for fourteen years troubled with strictures. During the last four years he had experienced great difficulty in voiding his urine; it passed out in a thread-like stream, and after an excess of drinking, a total retention of urine generally took place for about twenty-four hours, attended with great pain, and constant inclination, without the ability to expel a single drop. This retention was relieved by bleeding, the warm bath, castor-oil, and opiates. His principal inducement in applying to me, he stated to be the great debility he suffered in the organs of generation; and, being married, he was particularly anxious to be restored to the sound and healthful state of his bodily functions. I begged him to feel perfectly easy on that subject, as, with the removal of the strictures, his debility

and other complaints would most probably vanish. On examination, I found a stricture about five inches and a half down the urethra. I immediately commenced my mode of treatment, from which he felt little or no pain: the sensation, he said, was rather agreeable than otherwise, and no hemorrhage followed. It took three applications to remove this stricture. On passing a metallic bougie (No. 12) through this stricture, it was stopped about an inch lower down by another. I continued my system with little pain, and no hemorrhage. On the second application the pain was rather acute, and about a spoonful of blood followed the instrument. I prescribed a warm bath, an opiate at night, and a dose of castor-oil in the morning. On his next visit, he said he had slept well; had been disturbed only twice during the night to void his urine; before which, he was constantly obliged to get up eight or ten times every night for that purpose. He was desired to remain for two days perfectly quiet, and then call again. He was punctual. The metallic bougie (No. 12) was introduced through both strictures into the bladder, and, as it produced no irritation, was allowed to remain in an hour. On withdrawing it, the urine flowed in a full stream, and he emptied his bladder in a few seconds, which agreeably surprised and astonished him, as he could not, for the last three years, empty that viscus without long straining, and occupying at least from ten to

twenty minutes. The bougie was introduced every day and allowed to remain as long as he felt easy. On its producing uneasy or painful sensations, it was withdrawn. He now passed the bougie only on alternate days for one month. His urine was voided in a full stream, without difficulty or pain; all symptoms of irritability of the urethra or bladder were entirely removed; but the organs did not so quickly recover their former tone and vigour; he was, therefore, ordered to commence a course of the tonic remedies, which he continued for six weeks; and at the expiration of that time, was perfectly cured both of the strictures and of his debility. He assured me he did not recollect possessing at any period of his life, his natural functions in a sounder state. I saw this gentleman four years afterwards, and he continued perfectly well in all respects.

CASE XIX.

Strictures impervious both to the Urine and Instruments, accompanied with Urinary Fistula, Cured by the Kali.

A respectable gentleman, aged fifty, residing in Essex, had been afflicted with strictures nearly twenty years, during which time he had experienced

considerable difficulty and pain in voiding his urine, and very frequently a pain in the perinæum and in the loins. He had obtained occasional relief by the use of the common bougie, under the direction of a neighbouring surgeon; but the strictures always returned with increased violence. At length, a partial retention of urine came on, with a tumour in the perinæum; and, as his surgeon could not pass any bougie, he came to London, and placed himself under the care of a surgeon in Arundel-street, Strand, who ordered him to rub mercurial ointment on the tumour, and to take two blue pills every night.

These remedies seemed to increase the inflammation, and a total retention of urine followed. Fortunately, however, the abscess broke, and the urine was discharged through the opening. He continued under this gentleman's care six months, and finding no improvement, but the reverse, he applied to me. On examining the urethra, I discovered two sinuses, running on each side the fistulous opening in the perinæum. No urine escaped through the natural external orifice. The urine used to dribble into these sinuses, occasioning for a few minutes most excruciating pain. The scrotum was much swollen, and had become as hard as a stone. I began his cure by applying my remedy to the first stricture, in order to the re-opening of the natural passage. After four applications, a metallic bougie (No. 11) passed through the stricture, and

about an inch beyond the opening in the perinæum, met with an impediment from a second stricture ; to which also I directed my attention, and after three applications, the same metallic bougie passed through it into the bladder. In a week I introduced a bougie (size No. 12), which passed with perfect ease. I followed up this operation with the introduction of a gum elastic catheter, through which he passed his water ; a small silver plug was screwed in at the end of the catheter, which could be easily unscrewed, when the patient wanted to evacuate his urine, and replaced afterwards. The abscess was dressed with common ointment of wax and oil ; but the sinuses not healing, I laid them open, and dressed them as before ; and in three weeks they were healed, and the catheter withdrawn. The urine, after this, passed through the external orifice, and the use of the catheter was finally discontinued. The size of the scrotum had greatly lessened ; and it had nearly returned to its natural softness. His general health had been considerably impaired ; but by administering tonic medicines it improved greatly, and he considered himself in a more comfortable state than he had been for a series of years. This gentleman was under my care about six weeks ; but he continued the tonics for two months after he left me. He visits London generally twice a year, and enjoys an excellent state of health.

CASE XX.

Strictures of ten years' duration Cured by the Kali.

Mr. N., a respectable auctioneer, was afflicted with strictures for ten or twelve years before I saw him. He made water four or five times generally, but occasionally ten or fifteen times in the night; and, during the day-time, seldom fewer than twenty times. He was subject to frequent irritations, and even to retentions of urine. Sometimes he made water five times in an hour, and with great straining and excruciating pain; at other times he would not evacuate any for half an hour after he commenced the effort. Occasionally his urine came away involuntarily, by night as well as by day. The urinary stream was generally as fine as a thread. He had most tormenting pains in the region of the pubes and perinæum. There was observable in his urine a glairy gelatinous fluid, when the irritations and frequent desire to make water affected him. From long protracted disease, he was much debilitated, and his general health greatly injured. I found a stricture about four inches from the external orifice, which stopped the progress of the finest bougie. The urethra, and particularly the strictured part, was so irritable, that the bare introduction of the bougie produced very painful sensations

I therefore delayed the application of my remedy for a day or two, and ordered the warm bath, an opiate, and mild aperients. Three days after, when he called again, the irritability of the parts seemed to be diminished, and I began my plan of treatment; the operation was attended with little or no pain; but towards the evening a retention of urine came on, and he was put into a warm bath, and took a full dose of opium. After being in the bath fifteen minutes, the urine began to flow, the pain ceased, and he had a quiet night.

Three days afterwards the remedy was again applied; he experienced no particular inconvenience. After four applications, the metallic bougie (No. 9) passed through the stricture. In three days more a bougie (No. 11) was, with tolerable ease, passed to the second stricture, which it required five applications to remove. On passing the same sized metallic bougie, it was impeded by a third stricture, about an inch beyond. This last was also removed by two applications only, and a metallic bougie (No. 9) passed readily into the bladder. The urine now flowed in a full stream; the pains about the pubes and perinæum were hardly felt; he emptied his bladder as quickly and as conveniently as he ever remembered; and he was seldom disturbed in the night to make water. The use of the bougies was continued. At the expiration of a month, a bougie (No. 12) about the natural diameter of his urethra, passed

freely into the bladder. I instructed him in the use of the bougie, directing him to pass one every other day for a month; and to take steel and other tonic remedies for the recovery of his general health. He called in about five weeks, and informed me, that he passed his water with as much freedom as ever; and that his general health and strength were so much improved, that he had discontinued the use of tonics. I saw him five or six years after his cure, when he said he continued perfectly well in all respects.

CASE XXI.

Stricture causing Swelled Testicle Cured by the Kali.

A respectable farmer, near Petworth, had been afflicted with a swelled testicle for eighteen months; he had consulted the medical gentlemen in his neighbourhood, and all the usual means had been exhausted without the swelling being reduced. It was supposed to have been originated by a gonorrhœa, which he had caught about two years before. He consulted me at first by letter, but finding the remedies I prescribed equally unsuccessful with those he had tried before, I desired him to come to town, which he did, and on my examining the parts, I

found the left testicle considerably enlarged and indurated. On passing the prepuce over the glans, I perceived a trifling discharge. I inquired if he had a gleet; he said he had not, but that there was a little discharge, so little, as seldom to stain his linen. Inquiring how he passed his water, he said he discharged it in a narrower stream than formerly; and that his desire to evacuate it was more frequent than it was a year or two back. I told him it would be necessary to pass a bougie, as I suspected a stricture to be the cause of his complaint. On passing a common bougie, I found a stricture six inches from the external orifice, to the cure of which I applied myself; and two days after, the same bougie passed freely into the bladder. In a week, a metallic bougie (No. 12) found its way readily into the bladder. Nothing was applied to the testicle; but it was suspended by a bag truss, wrapped up in a piece of flannel. As soon as the stricture was removed, the testicle began to diminish, and in a month it was reduced to its original size. The gleet entirely ceased, and the cure was completed. Three years afterwards he called upon me to say he continued perfectly well.

CASE XXII.

*Stricture of several years' duration Cured by
the Kali.*

An excise-officer, thirty-five years of age, residing in the neighbourhood of Chelmsford, laboured under symptoms of bad stricture for several years before he came to town to consult me. For the last four years he had the greatest difficulty in making water, which frequently came away by drops only. He has been half an hour in his efforts to evacuate his urine, and always with much straining and pain. He had also a constant running from the urethra, which was often streaked with blood. His long sufferings under this malady had so broken his constitution and weakened the organs of generation, that he was in a state of absolute impotence, and with little inclination for the sexual intercourse. He deemed his life so miserable, that, unless he could get relief, he cared not how soon it terminated. On introducing a bougie into the urethra, I found a stricture about six inches from the external orifice resisting the passage of the finest bougie. I applied the kali to it. As a case of single stricture, it was the most obstinate I ever had to contend with; it took fifteen applications before I could succeed in passing a metallic bougie (No. 7) through it into the

bladder. After this operation, however, he passed his water in a good stream, and the weight of his sufferings were greatly alleviated. In three weeks from the destruction of the stricture, I was able to introduce a bougie (No. 10), and, in a month, one (size No. 12) which was about the natural capacity of his urethra: I passed it with tolerable ease into the bladder. He continued the use of the metallic bougies for six months, and took during the same period large doses of steel and other tonic remedies, to restore his lost powers and to re-animate the organs. At the expiration of twelve months, he called, and informed me that he was perfectly well. The discharge had stopped; the urine flowed fully; and the organs of generation had recovered their previous strength and vigour. I met him by accident at Brentwood, about four years afterwards. He was there with his wife and two children, and said he continued quite well; but took care to introduce the bougie about once a month, to prevent, if possible, the urethra from ever contracting again, as he dreaded the chance of his being brought to the same calamitous situation from which, under my treatment, he had so happily recovered.

CASE XXIII.

A Stricture partially Cured with the Kali—a Relapse from a discontinuance of the Treatment—a False Passage made, and the Patient finally Cured by the retention of the Catheter.

June 20th, 1836.

David Sutherland applied at the Infirmary; states that twelve months since he first found difficulty in voiding his urine, and eight months ago first applied to a surgeon at Bermondsey, who endeavoured, without success, to pass an instrument into the bladder; considerable bleeding followed the operation. He continued under the care of this gentleman three months, without getting any better. He always had hemorrhage after the attempts to pass an instrument. Since this period he has not had any advice. His urine now dribbles from him involuntarily, and he cannot at any time void it in a stream. I passed an instrument down to the obstruction, but not through it. Blood followed the withdrawal of the instrument.—June 21st. Applied the kali.—June 23rd. Passed a bougie down to the stricture; slight hemorrhage.—June 24th. Applied the kali.—June 25th. Says, that upon making water yesterday, after the application of the kali, felt as if something had given way, and the urine was then ejected much more freely.—June 26th.

I passed a catheter (No. 4) into the bladder.—June 28th. Says, that for some hours yesterday, he was unable to void his urine, but that to-day it passed in a good stream.—June 30th. I passed a catheter (No. 6). From this time he continued to improve, and I was able to pass nearly a full-sized instrument. But in consequence of the closure of the Infirmary I now lost sight of him till October 11th, 1840, when he called upon me. He then informed me that he had continued well for nearly eighteen months, when finding the difficulty of urinating returning rapidly, he applied at the ——— Hospital. Mr. ———, the surgeon, desired him to come to the ——— Infirmary on the next day. He did so, and Mr. ——— then placed him under the care of his son. This gentleman tried to pass a bougie, but did not succeed. He then desired the patient to go down the ——— Hospital and take a bathe, but the patient says, that as he did not like his mode of operating, he neglected to do so, and never applied to him again. For three or four months after this he neglected himself. He then applied at the ——— Dispensary. The surgeon of this institution introduced a wax bougie, which he said went into the bladder, but Sutherland thinks not, as when it was withdrawn, it was doubled up, as though it had bent in the canal. He was the more confirmed in this opinion, as at no subsequent attempts did the instrument pass beyond the obstruction. After some little time Mr. ——— desired the pupils to attend to him,

but Sutherland seeing that they appeared to use force when passing instruments on others, ceased to attend, not liking to place himself in their hands. He next applied at the — Infirmity. He saw the physician who attends at this institution, and told him that he had a discharge and stricture of the urethra. This gentleman prescribed some remedies, and for upwards of six months he continued to order different kinds of medicines. I need scarcely say, without much benefit to the patient. He then applied to the surgeon of the Infirmity. This gentleman made two attempts to pass an instrument, from both the patient suffered intense pain, and a most profuse bleeding followed the operations. Sutherland says, the instruments went out of the passage. In a fortnight from this he applied to me. Upon examination, the instrument, if left to itself, appeared to drop into the sinus of the bulb, and then pass out of the canal. Bleeding immediately oozing out of the urethra, and upon the withdrawal of the instrument a copious hemorrhage took place. I made several attempts to hit the opening of the stricture, but without success. For three weeks I continued these attempts with every kind and variety of instrument, but with no better results. At the expiration of this time I succeeded in fixing a small gum catheter, mounted on a firm iron stillet, in the grasp of the stricture. I determined upon leaving it there. It was consequently fixed in, and I desired Sutherland

to remain quiet, and every now and then press gently on the instrument, in the hope that it might slip into the bladder. After it had remained in some three or four hours, he was obliged to withdraw it, in order to pass his urine. The next day he had a partial retention of urine. After the irritation had subsided, the instrument was again fixed in the grasp of the stricture, and as before he was obliged to withdraw it to urinate. These proceedings we repeated twice more, and then at the next operation I succeeded in passing the catheter into the bladder. It was fixed there, an anodyne enema administered, and the patient desired to call the next morning; and upon his doing so, he informed me that he had passed a very good night: the catheter was withdrawn. At his next visit, he informed me that he passed water in a larger and freer stream than he had done for years. The catheter was twice more retained all night, and then a full-sized instrument was passed with ease. During the whole of the period (about seven weeks) he was able to work, and the only medicinal means required were aperients, opiates, and a few applications of leeches.

I did not apply the kali a second time in this case, least the armed bougie should slip into the false passage, and thereby aggravate the evil.

CASE XXIV.

Permanent Stricture removed by the Kali, and the Spasmodic Affection Cured by the Retention of the Catheter.

Captain P. applied to me in consequence of being afflicted with stricture of the "mixed kind." He had laboured under the disease for four years. At the time of his applying to me he had just returned from foreign service. Upon examination, I found a stricture at the junction of the bulbous with the membranous portion of the canal. No instrument would pass. He had the usual symptoms, and had experienced several attacks of retention of urine. After three applications of the kali, I could pass a bougie (size No. 8): but there was considerable spasm. This continuing, I determined upon leaving a catheter in for a night. The next day I found the catheter quite loose; I withdrew it, and immediately passed a full sized bougie. In a few days after I found the spasmodic action returned, so that I could not introduce a full sized instrument. I therefore again determined to leave a gum catheter in for a night; the next morning the spasm had ceased. From this time there was no recurrence of the spasm. This gentleman's cure occupied little more than three weeks. It is nearly eighteen months since I cured this gentleman. I have seen him often during that period, and he continues perfectly well.

CASE XXV.

Stricture mistaken to be Gonorrhœa.

Mr. B. came up to London by the recommendation of an old patient of my father's, to place himself under our care for the cure of his strictures. The following is his account of the first symptoms and progress of his disease. "Three years ago I was suddenly attacked with a discharge from the urethra, accompanied by some slight irritation. I was at that period living at Bristol. I immediately applied to a surgeon, who informed me that I was labouring under gonorrhœa. I was much surprised at this, as I had not been with any female, but my wife; this I told him, but he persisted in his opinion, saying, "If you have not been with any other woman but your wife, why then she has clapped you." He was so confident on this point, that I was fool enough to believe him, and upon my return home I charged my wife with infidelity. This led to her retorting the charge on me, saying that I was not content with going with other females, but when I had contracted a disease as the consequence of my dissipation, I, in order to conceal my own guilt, made a groundless accusation against her; in a word, we separated in consequence. For two years from this I was nauseated with all kinds of medicines to stop the discharge, and I used injections; but all to no purpose. In fact I was daily getting worse. I had

an immense irritation in the urethra, a profuse discharge, and both pain and difficulty in making water. Still I had no suspicion of the true nature of the case. At length one day a retired surgeon happened to be travelling on the box with me (Mr. B. drove the ——— mail), and observing that I was in pain, and how frequently I got down to void my urine, as also the length of time I was about it, asked me what was the matter. I told him the history of my case, and he at once said that he had no doubt that it all arose from stricture. He at the same time said that if I would come up to his house (he resided in the village I rested at), he had some bougies, and would examine my urethra. I gladly accepted his offer, and upon examination he said I was labouring under severe strictures. The only result of this was, that I wrote to my wife, and we became reconciled. In the course of a few months I became so bad that I was obliged to milk myself as it were to get the urine from me. I was in a deplorable state in every respect, and the nature of my occupation added to my miseries, as I was obliged to be out in all weathers. At last I determined upon consulting some surgeon, and went to Bristol for that purpose. Here I met Mr. ———, who, upon learning the object of my visit, so strongly urged me to come to London to your father, that I was induced to do so."

Upon examination I found an impassable stricture about an inch from the orifice of the urethra. I now

passed my finger along the external course of the urinary canal, and I found that from the point, corresponding to the situation of the stricture to the anterior part of the scrotum, there was considerable induration, with here and there knotty indurations. I applied the kali to the stricture. The patient was very anxious to know when he should be well. I told him that I judged in three weeks or a month, but that it was impossible to say. Hereupon, much to my surprise, he told me that he could not remain longer than a week. Upon hearing this I at once informed him that I thought it was next to useless his remaining at all. However he said he would see what a week would do. He visited me the next day, and as he had not experienced the slightest irritation, I determined to venture thus soon on a second application of the kali. After the bougie had been firmly pressed against the stricture for about two minutes, he complained of a burning heat, and at the same time I felt the instrument pass through the stricture. I immediately withdrew it, and then passed down an exceedingly small urethral ball; I felt it jump over the stricture, and then for more than an inch over numerous ridges of stricture; in fact the sensation was just as if it had been drawn over a nutmeg-grater; it went into the bladder. He came again the following day and said that he passed water much better, and had not experienced any inconvenience. He was most anxious for the kali to be applied again,

I however pointed out to him that the risk was too great. This did not satisfy him, and as he continued to urge me to apply the remedy, declaring he would take all the risk, I consented, and having armed a urethral ball, both in the anterior and posterior part, I passed it quickly through the first stricture, and then drew it backwards and forwards over the ridges of stricture behind the first. This I continued till he complained of some heat. Whilst I was thus operating, I could feel distinctly the firm ridges soften under the action of the kali. At his next visit I found the operation of the previous day had excited slight irritation. I therefore declined, notwithstanding his importunities to the contrary, to operate, but desired him to call the next day. Upon his doing so, he assured me that he had not the slightest pain, and that he passed his water in a greatly improved stream. I now armed a urethral ball as before (about the size of No. 6 bougie), and passed it over the ridges in a similar manner to the first operation with the ball. Upon his waiting on me the next day, he reported favourably of his progress. I gave him a metallic bougie (size No. 7), and told him to pass it in the evening and allow it to remain, if it did not create uneasiness, for an hour. The next morning when he called, he informed me that he had gone to bed, passed the bougie, intending to withdraw it in an hour as I had directed him, but that he had fallen asleep, and did not wake till four in the morning,

when he found the bougie still in the urethra. He took it out, and upon making water when he got up, he did so with the greatest ease and freedom. I have only to add, that at the end of the week he went away, taking with him three metallic bougies, the sizes of which were Nos. 8, 9, and 10; the last being of the natural diameter of the urethra. He wrote to me several times after he left, and the last time I heard from him he informed me that he could pass No. 10 with ease, and that the only symptom of disease was a slight remaining discharge.

The only remark that I have to make on this case is, that I do not cite it as an example to be followed. The only circumstances that can justify the free use that was made of the kali in this instance, are the situation of the strictures, the little or no irritation resulting from each operation, the patient's importunities, and the little time that he could devote to his cure. But perhaps after all the best and only excuse is the successful result;—a bad excuse I admit.

CASE XXVI.

Stricture of some years' existence, with Disease of one of the Testicles and Spermatic Cords, Cured by the Kali, after the failure of the treatment with Bougies.

W. A. A., Esq., surgeon, called for the purpose of consulting me, having stricture of the urethra. He informed me that he had for many years laboured under that disease, that he had vainly tried to cure himself by bougies, and also had been under the care of, first, Sir — — —, and afterwards of Sir — — —. Both these distinguished surgeons had tried to effect a cure by the employment of bougies, but their exertions were productive of but slight benefit. The irritation arising from the stricture, or the constant employment of bougies, had caused enlargement of the left testicle and spermatic cord; both were exceedingly hard.

Upon examination, I found that the stricture was pervious to a bougie, size No. 6, the natural diameter of the urethra being No. 12. I told him that I thought I should soon be able, by the aid of the kali, to effect his cure. Upon this he smiled, and said that, although he had called upon me, he had not much faith in the possibility of his cure, as he had repeatedly found, that after getting up to a bougie

of the size of No. 10, he always became worse. Hereupon I remarked, that I presumed he was a medical man (for he had not then told me either his name or profession), from the way in which he had described his case, and that, consequently, "as dog did not eat dog," so, should he place himself under my care, I should not think of taking any fee, he had a pretty good guarantee that, unless I thought I could cure him, I certainly should not trouble myself in so unprofitable a matter. He said, as an utter stranger to me, he should wish to pay my fee for the operations, but of course that was out of the question.

After some further conversation, I found that there was considerable irritation of the urethra and testicle, as well as much derangement of the general health. I therefore suggested to him to attend to the general state of his health, and also to adopt measures for the removal of the local irritation, especially in the testicle. In conformity with this advice, he determined to go to the sea-side for a fortnight, to take warm-baths, and apply twice a-week leeches to the enlarged testicle. At his return to town, he waited upon me much improved in his health, and the irritation and enlargement of the testicle greatly diminished. I now proceeded to apply the kali. He experienced little or no pain from the operation; indeed he assured me that there was no comparison between the slight uneasiness

from the application, and the pain he endured from the attempts to dilate the stricture. It is only necessary to add, that in a month from the first application of the kali, he was able to pass a full sized bougie, and, in short, was in every respect restored to perfect health. I have not seen him lately, but he continued perfectly well for a period of two years after this, and has done me the honour of recommending me many strictured patients.

It was this gentleman who, with another, subscribed to support Duggins' grandchild, as mentioned in page 49.

CASE XXVII.

Stricture of twenty years' duration Cured by the Kali, after the Patient had left one medical man who employed the same remedy.

January 10, 1837.

Mr. T. came up to London from Essex for the purpose of placing himself under my care for the cure of his case of strictures. He informed me that he had laboured under more or less difficulty in micturition for the last twenty-three years. He never, till four months ago, applied to any surgeon, but had recourse to internal medicines. At that

period he was attacked by a retention of urine ; he immediately came up to London, and applied to Mr. —, who introduced a full-sized bougie down to the obstruction, and, after allowing it to remain for some minutes, withdrew it ; a few drops of urine immediately followed, and then the water was passed in a small stream, and the retention was relieved.

The next day Mr. — applied the kali ; a considerable hemorrhage took place : he then desired the patient to call again in the afternoon. Upon his doing so, Mr. — passed a bougie to see, as he said, what effect the kali had produced : more bleeding occurred. About nine at night, upon attempting to void his urine, a drop or two passed into the urethra, producing the most dreadful agony and violent spasms ; and then a total stoppage occurred. He went directly to Mr. —, who, for the third time that day, introduced a bougie down to the obstruction ; this enabled the patient to pass a small quantity of urine. He had scarcely done so, ere he was seized with an attack of rigors. He was conveyed to his lodgings. The next day he went home, frightened at the idea of submitting to any further treatment. Since then he has done nothing, except trying two or three times to pass a bougie himself.

His present symptoms are, constant desire to pass water ; almost every ten minutes, the urine flows in a very small stream, and sometimes only in drops ;

it requires a considerable time to void but a small quantity of water; and he thinks he never empties the bladder. At night he is disturbed every ten minutes; and the urine sometimes passes involuntarily. I could not pass a bougie beyond the stricture. A slight bleeding was caused by the attempt. January 11th, repeated the attempt without success. January 13th, applied the kali; no bleeding. January 15th, says he did not experience the slightest pain from the application of the kali, and is better. He is perfectly astonished at the different effects produced by my application and Mr. ——. January 16th, I succeeded in passing a small catheter into the bladder. I regret that I neglected to continue my notes of this case, therefore can only finish it briefly from memory. I do not recollect how many applications of the kali were made, but it was about nine or ten weeks before a full-sized bougie could be passed. During this time he had three or four attacks of retention of urine, and one or two severe hemorrhages after operations. I was also obliged for a fortnight or three weeks to suspend the treatment, in consequence of the extreme irritability of the stricture, and strong tendency in the urethra to inflammation. Indeed the irritability of the stricture, and its proneness to bleed on the slightest touch of the bougie was such, that I could not operate nearly so often as in ordinary cases. However, the time required to effect the cure was, after all,

trifling, considering that the disease was of long standing and great severity.

This gentleman called on me some months since, and informed me that he continued to pass his water without difficulty.

CASE XXVIII.

A Mixed Stricture of four years' standing Cured by three applications of the Kali.

E. R., Esq., was recommended by a college friend of his and a patient of mine, to consult me on his case of stricture. He accordingly, through my patient, requested my attendance at the Burlington Hotel. But as I learnt that he was at that time under the care of Sir ———, I declined waiting upon him ; at the same time thanking my friend for his kind recommendation, and explaining to him that I thought it would be unfair towards Sir ——— that the patient should take himself from under his care, because his case did not go on so well or quickly as he himself could wish. Some ten days or fortnight after this, I received, about ten at night, a request for my immediate attendance at the Burlington Hotel. Upon my arrival I was shown into a room, and in a few moments after, a gentleman, who I subsequently learnt

was an "apothecary," made his appearance. After some very civil speeches, this gentleman informed me that the patient had been operated on in the morning by Sir ———, and was now, and had been for some hours suffering under an attack of retention of urine. That Sir ——— was from home, and that by the persuasion of his friends he had sent a very "improper" letter to Sir ———, containing his fees, and informing him that he had determined upon consulting some one else. But that in consequence of his pointing out to the patient the "impropriety" of his conduct, he had withdrawn his letter to Sir ———; and as Sir ——— was from home when it was sent, he was fortunately unacquainted with its contents, as it had been fetched away again. This gentleman concluded by saying, "You must as a medical man be aware that patients, urged by friends, and whilst suffering from pain, take steps that they otherwise would not; of course Mr. R. will send you your fee." The next day I received a note from Mr. R., enclosing a guinea. I returned him the fee with my compliments, informing him at the same time that, as I had rendered him no service, so I desired no remuneration. About a week from this, Mr. R. called upon me. Upon entering my library he said, "Mr. Courtenay, I come to ask you what I shall do." To this I replied, that I, like an Irishman, must answer his question by asking one, that was, what he meant, as he had already made a fool of me,

and I did not intend he should do so a second time. Upon this he expressed his regret, and then told me that he was induced to act as he had done by the representations of the gentleman I have mentioned, who happened to call just after he had sent for me, and upon hearing that he had done so, had dissuaded him from placing himself under my care, urging, amongst other reasons, that I "had published a book which I advertised." To all this I replied by remarking that having sent for me he ought in person to have explained his reasons, and not deputed another; and with regard to the remarks of this gentleman, I thought that considering he had been recommended to consult me by an old college friend, the brother of a baronet, who informed him that he himself had been recommended to my care by Viscount — — —, M. P., who was a mutual friend of theirs, that his regarding what a dastardly slanderer, who after abusing a man could meet him as this gentleman did me, was an insult both to his own friends and myself, for he could not suppose that men of their rank and station in society would so strongly recommend me had they not themselves been well assured of my honour and possession of a fair share of professional talent. After this little sparring we became better friends, and the result was, that Mr. R. placed himself under my care.

The account he gave me of his case was, that whilst at Oxford he contracted a gonorrhœa, which con-

tinued on him for a considerable time, and led to his coming up to town and consulting Mr. ——. This gentleman prescribed for him an injection, which, when used, caused intense pain, violent spasms, and, if I recollect rightly, a total or partial retention of the urine. The discharge was ultimately cured, but after this he began to experience difficulty in micturition, and became subjected to frequent attacks of retention of urine. So ill was he at last, that he was compelled to give up all field sports. In this state, a year before he came to me, he consulted Sir ———, who attempted his cure by the bougie, but he derived no material benefit, and returned into the country. About a month before he applied to me, he had again consulted Sir ———, who again passed bougies, but with no better success, and he experienced repeated attacks of retention of urine. After hearing these particulars, I proceeded to examine the urethra, and I found a stricture at the junction of the bulbous with the membranous portion of the canal. A bougie of size No. 2 could be passed through it; there was also some difficulty experienced at the neck of the bladder in the introduction of the bougie; it was however spasmodic. At his next visit, I applied the kali. He was perfectly surprised at the little pain he experienced. In two days, I saw him again. He told me that he felt much better. I repeated the application. I was called up in the night (about twelve o'clock),

after this operation. I found him in a hip bath labouring under an attack of retention of urine. Upon inquiry, I learnt that he had been seized about nine o'clock with the stoppage. He had immediately applied a dozen leeches to the perinæum, and taken opium. I expressed my surprise at his not having sent for me; to this he replied, that he considered it useless, as he supposed from his previous treatment that nothing could be done for him but what he had himself employed. My reply to this was, to request him to get out of the bath; he did so, and I immediately proceeded, greatly to his surprise, to pass a small flexible catheter, and drew off his urine. The next day, instead of being confined to his bed as he had always been before under similar circumstances, he came to my house perfectly well. The day following all irritation had ceased, and I applied the kali. Three days after this he told me that he was sure he was cured, for he made water with the greatest freedom. Upon this I introduced a full-sized bougie, which passed freely into the bladder. In the evening, my patient called to say, he could not pass his urine, and to request me to introduce a catheter. Upon this occasion he had not stopped to apply leeches, &c. &c. Instead of passing a catheter, I introduced the same bougie that I had passed in the morning, and, as I withdrew it, desired him to try to urinate; he did so, and the urine passed at once in a full and free stream. I passed a bougie

a few times after this, but there was never any irritation or sign of disease. In a word, he was perfectly well. This is now more than four years ago. I saw him repeatedly during two years from this time; he continued up to that period perfectly well, and always expressed himself in the warmest terms of gratitude both to me and the gentleman by whose recommendation he had placed himself under my care. I believe, however, that about a year since, he had an attack of retention, but as he has had, since his cure, repeated gonorrhœas, and not lived the most regular life, I think it is not too much to say that this circumstance does not prove anything against the efficacy of the kali.

I am thus minute in relating all the circumstances of this case, because I am anxious to avail myself of the present opportunity (as being the only means of defence I have against the blighting injury these skulking slanderers would inflict on my name and prospects) of publicly noticing, and by a simple statement of facts refuting, these attempts of cowardly detractors to whisper away in holes and corners my character. To this end, I beg to inform all those who may either from good or bad motives feel interested in the legality of my qualifications, that I was, upon entering the profession, apprenticed to the respectable firm of Banks and Jones, of Ryde, in the Isle of Wight; that I afterwards resided as assistant for a year with Mr. Welch, surgeon, of Stanstead, in

Essex; then as "visiting assistant" with the firm of Nedham and Oliver, surgeons, Leicester. The former gentleman held the high appointment of senior surgeon to the County Infirmary, the Lunatic Asylum, and the Fever-house; he was also the surgeon of the County Gaol and Bridewell, the Town Gaol and Bridewell, and various other public charities; besides enjoying one of the largest and most respectable private practices of any gentleman in the town. During the latter part of my residence at Leicester, the more active duties attendant on those appointments fell upon me, in consequence of the illness of the junior partner. Subsequently to this I resided with Mr. Stevens, at Pewsey, Wilts, a gentleman of most extensive practice. Upon leaving this gentleman, I entered at Guy's Hospital, and in due time obtained my diploma. Like every young man, I now began to turn my attention to the practice of my profession on "my own account." Whilst undetermined on this point, circumstances arose that made my late father anxious to forego the fatigues of his extensive practice, and at the same time many noblemen and gentlemen who had been patients of his, seeing his advancing age, and wishing, in the event of his death, that some one should succeed him who was fully conversant with his system of treating diseases of the urethra, expressed an earnest wish that I should be that party; and at the same time assured him, that if I would turn my attention to the especial study of the

treatment adopted by him, they would use their utmost interest to promote my success; a promise that I acknowledge (both with gratitude and pride) has been amply kept during the eight years I have devoted my sole attention to the practice of this branch of surgery. But it appears I have "published a book which I advertise in the papers." Truly, if this be a peg whereon to hang a charge that a man is not "professional" but a quack, then must almost every surgeon connected with our metropolitan hospitals equally with myself plead guilty to quackery, unless indeed "hospital surgeons" possess in the eyes of these censors some privilege that their less favoured brethren do not possess. I would further only ask these gentlemen what I am to do with the copies of any work I may publish, if I am not allowed to "advertise" it?

In quitting this to me disagreeable and painful subject, I beg that it may be most distinctly understood that in what I have said I have not the remotest intention of reflecting on the honour of the "hospital surgeons" of London; far from it; for as a body I believe them to be unequalled both in talent and liberality. Many of them I have had the pleasure of meeting in consultation, and I have always found them to be gentlemen. But there are a class of fourth-rate men, who having plenty of leisure, instead of employing themselves in the cultivation of their minds

and the improvement of their manners, seem to have no other object than to spit their venom on their more successful competitors whenever they happen to cross their path.*

* Some of this class I have found to be connected with small dispensaries, men who in their attempts to establish themselves as "pure" surgeons, adopt most impure ways. Thus it is no uncommon thing for them to cultivate the acquaintance of the petty tradesmen in their neighbourhood, when, should those parties or any of their children or servants become ill, they say "come to me at the dispensary, and I'll give you your medicine, or call at my house and I'll give you an order for medicine." This they do in the hope that in return for the "gift" of medicine, the patient will ease their "itching palm" with a small fee. This is one of the evils of the dispensary system. By it a double wrong is committed; first, by diverting the funds of the charity from their legitimate object, and next, by taking from the fair general practitioner a source of emolument, that would greatly assist him in his early struggles to establish himself.

CASE XXIX.

Stricture of twenty-five years' existence, accompanied by Disease of the Bladder, Cured by the Kali, after the failure of the Treatment by Bougies and Cutting Instruments.

Mr. S., in consequence of hearing by accident of my having cured of stricture a poor man at the Infirmary, went there for the purpose of making inquiry as to my mode of treatment, this was at the time that James Derby (whose case has been already mentioned) was under my care at the Infirmary. It so chanced that Mr. S. saw him, and from his account of the state he was in when he first applied to me, and the benefit he had derived from my mode of treatment, Mr. S. was induced to hope that I should be able to effect his cure, or at least relieve him from the dreadful state he had been reduced to by long standing strictures. He consequently immediately came to my house to consult me. The following is the history of his case as related by himself to me. "I have suffered under stricture for more than twenty-five years; the first person I applied to was Mr. Whately, he however did not attend to me himself, but I was placed under the care of some young gentleman who was with him. This gentleman passed bougies for some time, and I became better. I then learnt how to pass the instruments myself, and then ceased my

attendance. From that time I kept pretty well, occasionally introducing the bougie myself. I continued in this state for years. About ten years ago I was suddenly seized with a retention of urine, and not knowing what to do, in my alarm, I went to the — Hospital. The house surgeon attempted to pass a catheter, but could not. He then persuaded me to go to bed at the hospital, and applied warm fomentations. In two hours another attempt was made, with success, to pass the catheter; and the instrument was retained all night. The next morning the catheter was withdrawn, and I returned home, having first requested Mr. —, the surgeon of the hospital, to visit me at my own house. Upon my arrival at home, I was attacked with rigors and fever; which were so severe as to require the daily attendance of Mr. —, as also my regular family attendant for ten days. At the expiration of this time, Mr. — passed a small instrument through the stricture into the bladder. Bougies were now passed regularly for more than two months, when, as a good sized instrument could be introduced, Mr. — ceased his attendance. For some years I continued occasionally to pass a bougie, and once or twice had retention of urine, of which I relieved myself by the introduction of a catheter. At length I was seized with retention of urine, which was so violent that I could not relieve myself. I consequently sent for Mr. —, the gentleman who had attended me

before. This gentleman came, and immediately relieved me by the introduction of a small silver catheter, about size No. 5. For a week after this I was so unwell that no operation was performed. At the next operation the bougie could not be passed beyond the stricture. For a fortnight attempts were made almost every other day to pass the instrument, but without success. On one occasion the instrument went "somewhere," (to use Mr. —'s own words), but not into the bladder. Mr. — now said the stricture must be cut with the lancetted catheter. This operation was performed; I suffered greatly, and there was a profuse hemorrhage. Still no instrument could be passed beyond the stricture. For a week all treatment by instruments was suspended. The operation with the lancetted catheter was then repeated, and immediately after a small silver catheter passed into the bladder; this was kept in for a week, I all the time enduring the greatest agony; the silver catheter was then withdrawn, and a flexible gum (No. 3) passed in its place. This was retained for three days and three nights; the irritation was then so great that it was obliged to be withdrawn, and leeches applied over the region of the bladder. The constitutional derangement that was produced by the irritation resulting from the retention of the catheters was so great, that fears were entertained for my life. There was great cerebral disturbance, and I became comatose. Sir — — was called in, and he

requested Mr. ——— to send for one of the “clever nurses” from ——— Hospital. Enemas were administered, &c. &c. At Sir ——— ———’s next visit leeches were ordered to the temples, and some aperient medicines prescribed. In a week I had partially recovered from this severe attack, and Sir ——— ——— now left me under the care of Mr. ———. From this time there arose great irritability of the bladder; there was constant desire to urinate; the water deposited a copious mucous sediment, and was highly offensive. The stream of urine was exceedingly small, notwithstanding a good sized catheter could be passed, which was done every third day. Mr. ——— now proposed to call in Sir ——— ——— (not the Sir before consulted). Sir ——— ———, after examining the urethra by the introduction of an instrument, advised that all operations should be discontinued, that the parts “might heal.”

For three weeks I was left to myself, and remained much in the same state. I then called on Sir ——— ———, wishing to place myself under his care, but Sir ——— ——— said, as Mr. ——— had called him in, he could attend to me only through him. In consequence of this, Mr. ——— resumed his attendance on me, and upon introducing an instrument into the urethra, he, after some difficulty, succeeded in passing it on to the bladder; it was a much smaller one than had been passed before. For three weeks bougies were passed every third day, and a good size bougie could

be introduced into the bladder. Notwithstanding this the stream of urine continued small, the water deposited a sediment, and was still highly offensive. Mr. — then ceased to attend, and directed me to pass an instrument occasionally myself. I continued to do so for some time, when finding myself getting worse, I called in Sir — — (the first) again. Sir — — continued his attendance for two months, but without benefit to me. I now consulted Mr. —, who told me not to poke about the urethra so much, and ordered me some medicines. I visited this gentleman three or four times, but did not get any better. I now consulted Mr. —, who turned his attention solely to the treatment of the disease of the mucous membrane of the bladder, the removal of the mucous deposit, and the improvement of the state of my urine. In following up this treatment he administered strong diuretics, cubebs, &c. &c. until blood passed with the urine. I remained in all three months under this gentleman's care. I then called upon you."

At the first examination I passed a small gum catheter into the bladder, and drew off a large quantity of highly foetid urine and mucus; there was considerable spasmodic irritability of the urethra; the urine was voided both with difficulty and pain; in short, both night and day he was a martyr to his disease. The general health was greatly impaired, indeed so much so, that he could hardly walk, and

he had all the appearance of a man who had long laboured under acute sufferings.

Upon a review of all the circumstances of this distressing case, I was led to the opinion that little or no benefit would be derived from the employment of any means for the removal of the stricture while such extreme local and constitutional irritation existed. In conformity with this opinion, I confined my treatment to the administration of opiates, the regulation of the bowels, the employment of the warm hip-bath; and I also directed the patient to rub on the perinæum, and over the region of the bladder, the ungt. antim. tart. every night after using the bath. In a week, to use the patient's own words, "these means had taken him out of the agony he had so long endured." This mode of treatment was continued for three weeks, the patient daily improving under it. The extreme local irritability, as well as constitutional disturbance, was entirely removed, and the urine had regained its natural and healthful appearance. He was, however, extremely debilitated, and as his urine was voided with greater freedom as the local irritation was removed, I determined on waiting a little longer before I applied the kali to the stricture. In the meantime I gave him some light tonics, and directed him to sit night and morning over the bath, and dash cold salt and water over the generative organs, perinæum, and pubes. In a very short time his whole appearance and feel-

ings were altered. I now applied the kali to the stricture, and after six applications I could introduce a full sized catheter into the bladder with perfect ease. During the whole period that was employed in his cure (about three months), he never had one untoward symptom. In a word, his progress to health was steady and uninterrupted from his first coming to me till his ceasing his attendance. For upwards of a year from this he continued perfectly well but at that period slight spasmodic irritation arose in the urethra. In consequence of this the catheters were passed, and these symptoms removed, but every now and then evinced a tendency to return. Under these circumstances I recommended that the instrument be passed occasionally. He has never had a day's illness since his first leaving me, and the only inconvenience he experiences is what may be supposed to arise from the occasional use of the catheter; a trifle when compared with his past sufferings.

CASE XXX.

A Case of Stricture, of ten years' existence, partially Cured with the Bougie; a Relapse occurred, and all after attempts failed to relieve the Patient: a False Passage ultimately made; Extravasation of Urine; Tumours in the Perinæum; Sloughing of the Scrotum; and four Fistulous Openings formed, two in the Scrotum, and one on each side of the Pubis.

Aug. 24, 1840.

James Flack applied to me for advice; he states that for the last ten years he has experienced great difficulty in micturition. Eight years ago he applied to the — Infirmity; at that time his urine was only passed in drops, and very generally came from him involuntarily. A very fine bougie was passed through the stricture at the first attempt; and after ten weeks' attendance he was discharged, apparently cured. After two years had elapsed, he was as bad as ever. He then applied again at the — Infirmity; but Mr. —, the surgeon, who had attended him before, had ceased to hold that appointment. His successor never attempted to pass an instrument, but prescribed medicines, and blisters to be applied over the loins. After six or seven weeks' attendance, finding no benefit from this mode of treatment,

he applied to —— Hospital. For upwards of three months he attended regularly ; but all attempts to pass an instrument failed. He does not appear to have been under any of the surgeons, but says, the “pupils” attended to him. Sometimes they would tell him to go into the surgery and wait, and often, after he has remained there for an hour, he would learn that they had left, so that he could not be operated on that day ! At length, wearied by such culpable inattention, and finding himself no better, he ceased to apply. For a time, he now contented himself by taking such remedies as “different people told him of.” His next application was to —— Hospital. He was placed under the care of a gentleman whose numerous engagements seem to have precluded his attending to him, for he would frequently go to the hospital at ten o’clock in the morning, and, after remaining there in expectation till four in the afternoon, he would be told he must come another day. During three weeks, he continued to attend three times a week ; but he was only operated upon twice in that period, and never received any medicines. Discouraged by this neglect, he again ceased to seek surgical aid. At last he applied to another public charity. At this institution medicines were given him, but no attempts were made to remove the strictures. He attended here between two and three months. Finding himself no better,

he then ceased to apply. From this period he was for a long time without any attendance. He had frequent attacks of retention of urine, and when seized by them, used to apply to chemists for some "forcing medicines." Within the last year he has been an out-patient of the — Dispensary four or five different times. No instruments were used upon these occasions, but merely some medicines given him. Ten days before his calling upon me, he again applied at the above dispensary. He was ordered some medicines, and told to call again in two days. At the next visit, the surgeon in attendance ordered him to continue the medicines, and also directed that he should go into the surgery to have a bougie passed. He did so, and a young gentleman, having the appearance of being about seventeen years of age, and "his face covered with the hairs of his head," endeavoured to pass an instrument. His attempts to pass the bougie were continued with great force for upwards of ten minutes, when he withdrew the instrument, declaring the spasms were too violent to allow the instrument to be passed. When the bougie was taken out, blood spirted from the urethra like water. He was upwards of an hour walking home (his usual time being ten minutes); and as he went along, the agony he endured was such, that he was compelled to stop frequently and cling to the railings of the houses he passed, in order to prevent his falling.

When he got home, he found his shirt was saturated with blood. He immediately went to bed. Upon his next attempt to urinate, he endured the most intense agony, and could only pass a few drops of water. He immediately had recourse to warm fomentations, and after some time the retention was relieved. Three or four days after this, he found that the perinæum was swelling; but he was so alarmed at the idea of any operation, that he did not send to the —— Dispensary, or to any surgeon, contenting himself with taking some simple medicines, and using warm fomentations. The swelling increasing, and his suffering becoming every day greater, he determined on making one more attempt to obtain relief, and he crawled down to my house.

I did not learn these full particulars at my first seeing him, for he was so ill and agitated, that I could gain but little information from him, and that was very incoherent. Upon examination I found there was a hard tumour in the perinæum, and upon introducing the finger up the rectum, I found the prostate awfully enlarged, and hard as a stone. His tongue was exceedingly furred, his pulse quick and irritable. In reply to my inquiries, he said he had no difficulty in voiding his urine, in short, from his replies to my questions, I had no idea of what he had undergone. He was ordered

two dozen leeches to be applied to the perinæum, and some internal medicines. He was desired to let me hear from him the next day. It was two days, however, before I saw him again, and then, instead of sending to me, he came himself.*

I found that the enlargement in the perinæum had much increased, and that he was in every way worse. I immediately desired him to return home and go to bed. In less than an hour I saw him, and made a deep and free incision into the tumour. There was no escape, either of urine or pus. I saw him again in the evening : there had been considerable bleeding from the incision of the morning, and the tumour was much less, and he much freer from pain. The urine passed was highly offensive and ammonical ; there was also a profuse mucous sediment at the bottom of the chamber vessel. The tongue was furred, the countenance anxious, the pulse quick ; and, in a word, there was considerable fever and constitutional disturbance. He was ordered, hydr. submur. g. iij. ant. tart. g. $\frac{1}{2}$. pulv. opii. gr. iss. M. ft. pil. h. s., and an aperient draught in the morning. I saw him early the next morning, and I found the scrotum enormously swollen. Free incisions on each side were made, from which urine oozed out. His gene-

* The poor fellow was afraid he should be taking too great a liberty by sending to me to go to him.

ral symptoms were unmitigated. He also complained of considerable pain in the upper part of the right groin, which was slightly swollen and inflamed. Leeches were ordered to the part, and afterwards warm fomentations, both there and to the scrotum, &c., of cap. papav. flor. anthem. I now tried to pass a catheter, but without success. The pills and draught were ordered to be repeated, and some saline opiate mixture to be taken every four hours. Upon visiting him at night, I found the scrotum much less distended, and the urine passing freely by the openings. The next day, August 28th, I found that little or no urine passed by the natural passage, and that the scrotum was greatly increased in size; I consequently made two more free incisions, and renewed my attempts to pass a catheter, and fortunately succeeded. Upon it passing through the obstruction, it for an inch in space conveyed a grating sensation to the hand. It was fixed in. The pain in the region of the groin was less, but there was much hardness and redness existing. The bowels have been opened. The tongue still furred, and the constitutional symptoms much the same. He was ordered to continue his saline medicines, and to have the following pill at bed-time : R Hydr. chlor.gr. iij. antim. tart. gr. $\frac{1}{2}$ pulv. meco. morph. gr. ij. M. ft. pil. and some castor oil in the morning. August 29th. Complains of sickness; the bowels have been opened;

the catheter remains in, and he thinks but little water escapes by the openings. With the exception of the sickness, thinks he feels better; the tongue is cleaner. He was ordered to continue the fomentations and poultices to the parts, and the following mixture prescribed: R Ammon. carb. ʒiss., succus limonis q. s., sol. mur. morph. ʒiss, mist. camphora viiss. M. ft. mist. sumat. coch. magn. iij. o. 4t. hora.

August 30th. A black patch appears involving nearly the whole of the left side of the scrotum, and the discharge from the fistulous openings is exceedingly offensive, so much so that his wife is sick when she removes the poultices. He was directed to mix with the poultices and fomentations liq. chl. calcis. To continue his mixture and to take these pills with each dose: R. Sulp. quinine, gr. iij., conf. aromat. q. s. M. ft. pil. ij. To take half-a-pint of port wine every twenty-four hours.—

August 31st. Going on very well, with the exception of increased uneasiness and swelling in the groin. A lancet was inserted into the swelling, and considerable pus discharged from the incision. The catheter was partially stopped up with mucus during the night, and the water consequently passed by the urethra, and also through the fistulous openings. I withdrew the instrument, and immediately passed with ease another and larger catheter. The urethra felt very ragged. The slough is separating; the

urine still deposits a copious mucous sediment, and is ammoniacal. Upon the whole the patient's state was favourable, and he says he shall get well, which is no bad sign.—September 1st. Much the same.—September 2nd. The slough has come off, and the left testicle is perfectly exposed. During the night the catheter had got stopped up, and he was obliged to pass his water, which escaped not only through the first opening, but also through that in the groin. He was ordered to continue his pills, and to take in place of his mixture a wine-glass of infusion of buchu, with ten drops of the solut. meco. morph. From this time, up to October 28th, he continued these medicines, only taking occasionally a dose of castor oil; the catheter was either retained, or else introduced when he desired to urinate. He gradually and steadily improved, the urine became of a healthy character, and the mucus disappeared. The fistulous openings healed. He was now very anxious to cease to retain or use the catheter when he required to empty the bladder (sometimes he did the one for a day or two, sometimes the other), and it was consequently discontinued. He continued to go on well, and to attend to his business, and used to pass the catheter every other day up to November 6th, when he was seized with shivering and fever. A slight swelling appeared in the old spot on the groin, and it was exceedingly painful. Immediately on my

seeing him I made an incision in the swelling, and the urine escaped through it. In a few days the fever left him, and from this time up to the present period (November 20th), he has gone on well. He now walks to my house every day; the catheter, however, is constantly retained, and I intend him to wear it for some months to come. The prostate remains greatly enlarged, and is as hard as a stone.

THE END.



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