RECEIVED

PATHOLOGY AND RATIONAL TREATMENT

OF

STRICTURE OF THE URETHRA,

IN ALL

ITS VARIETIES AND COMPLICATIONS,

With Observations

ON

THE USE AND ABUSE OF URETHRAL INSTRUMENTS.

THE WHOLE ILLUSTRATED BY NUMEROUS CASES.

By F. B. COURTENAY,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS, LONDON.

H. BAILLIERE, PUBLISHER, 219, REGENT STREET,

Foreign Bookseller to the Royal College of Surgeons and the Royal and Surgical

EDINBURGH: MACLACHLAN, STEWART, AND CO. DUBLIN: HODGES AND SMITH, FANNIN AND CO.
MANCHESTER: SIMMS AND DENHAM. LIVERPOOL: DEIGHTON AND LAUGHTON;
AND SOLD BY ALL BOOKSELLERS.

PREFACE.

Of all the diseases, to which man is subject, there is, perhaps, not one more common and inveterate, and, certainly, there is not one more continuously harassing in its effects, or so destructive of all comfort, as stricture of the urethra. Deeply convinced, by observations made in the course of a long and extensive practice, of the vast amount of human suffering, daily dependant for relief on the surgeon's practical knowledge of this disease, and on his manual dexterity and gentleness in the performance of the operations necessary for its cure, I have studiously refrained from engaging in theoretical discussions, and have strictly confined myself to the practical consideration of its causes, symptoms, consequences, and treatment. In the descriptions and details I have given in illustration of my subject, I have not made a single statement, or adduced a single example, that is not founded on repeated personal observations. I am, therefore, encouraged to hope that they will be the means of conveying to the young

student so clear a knowledge of the minutiæ of such cases, as are of daily occurence, as will enable him to undertake their treatment, with as much credit to himself, as advantage to his patient.

It will be observed, how repeatedly, and at what considerable length, I have referred to the erroneous diagnosis which is too often, and with such deplorable consequences, made in relation to the existence, or non-existence, of strictures of the urethra. It will be, also, observed, how much I have dwelt on the fearful effects of ignorance, and on the equally deplorable, though very less excusable, consequences of rash and violent attempts to pass instruments along the urethra to the bladder, by surgeons, of whose operative skill scarcely a doubt could be entertained. In all these remarks and animadversions, I have not made one, without adducing at the same time ample and painful evidence of its strict propriety.

In thus performing the really painful duty of exposing the ignorance of some, and the rashness of other, members of the profession, I have been influenced thereto by no hostility, either to individuals, or to a class. I have been actuated by the anxious desire alone to convince, by the irrefragable evidence too of facts, the young surgeon, of the inefficiency, danger, and certain discredit of attempting, by force, to overcome urethral obstructions. Should my present labours have no other result, than that of enabling a young man, just entering on the duties of

an honourable profession, to avoid a course of practice, as destructive to his own reputation for skill and humanity, as cruel and dangerous to his patient, I should have the satisfaction of thinking I have not laboured altogether in vain.

F. B. COURTENAY, M.R.C.S.L.

December 10, 1847.

2, CHANDOS STREET, CAVENDISH SQUARE,
LONDON.

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ON

THE RATIONAL TREATMENT

OF

STRICTURE OF THE URETHRA.

CHAPTER I.

GENERAL OBSERVATIONS ON THE CAUSES AND VARIETIES OF STRICTURE OF THE URETHRA.

THE formation of stricture of the urethra is invariably preceded by one or more attacks of inflammation in that canal, presenting a more or less acute character. Various causes—some, physical and internal; others, mechanical and external—are capable of exciting in the urethra such an attack or series of attacks of inflammation, as may lay the foundation of morbid contractions therein. As an example of the first, we may mention instances in which the urethral inflammation arises from the existence of some disease in other parts of the genito-urinary economy; and of the second, in which it results from external violence, as from blows inflicted on the perinæum.

As above suggested, the origin of urethral inflammatory action may, in certain cases, be ascribed to the previous existence of some disorder in other portions of the genito-urinary system; such as the prostate gland, the bladder, or the kidneys. Moreover, it is occasionally attributable to morbid affections of the neighbouring parts, as the rectum and anus. At all events, attacks of inflammation in the urethra, followed by the formation of stricture, do

undoubtedly sometimes arise solely from one or more of these causes. Nevertheless, gonorrhœa may, *cæteris paribus*, be regarded as the most universal cause of attacks of inflammation in the urethra, and of the subsequent formation of stricture. The prevalency, indeed nearly the universality, of this cause of inflammation and stricture results, in most instances, from the neglect of the patient, but sometimes from the long continuance, in spite of every care, of the gonorrhœal affection; in others, from its improper treatment, or from the frequency of its attacks in the same individual.

The application of the lunar caustic, diluted, or undiluted, to the surface of the urethra, for the purpose of removing morbid discharges of that canal, and the unnecessary or unskilful introduction of bougies, are often, especially the latter, exciting causes of such a degree of inflammatory irritation as to produce stricture. Amongst the more remote causes, are excesses in drinking whilst the patient is labouring under symptoms of gonorrhœa; too great an indulgence in sexual intercourse, or an unnatural prolonging of the act by retarding the seminal emission;* and lastly, any cause, capable of exciting an inflammatory action or irritation of the urethra, may occasion the formation of stricture therein.

In enumerating above the exciting causes of inflammation and stricture, I only cursorily alluded to the unnecessary or unskilful use of instruments as one. This being a subject of too much importance to be thus briefly passed over, I shall therefore now revert to it.

* The excitement in the genito-urinary organs, preceding and accompanying the act of coition, and the powerful spasmodic action, that occurs on its completion by the emission of the semen, must evidently have a strong tendency to aggravate any existing contraction, or increase any disposition thereto.

It has often been a question with me, whether the unnecessary, or unskilful, employment of urethral instruments is not a more frequent cause of stricture, than any of the others above enumerated, gonorrhœa excepted. At any rate, I have often thought, whilst listening to a patient's account of the origin, symptoms and progress of his disease, that I could trace, step by step as it were, the conversion of a case of irritable urethra into one of complicated stricture.

In confirmation of the foregoing remark, I shall state here a case exactly in point. A patient, upon consulting me, related his case somewhat in the following terms:—

"About two years ago, I contracted a gonorrhœa, which degenerated into an obstinate gleet. This resisting all the ordinary means of cure, the medical gentleman, who was attending me, was led to believe, notwithstanding my making water with perfect freedom, that the discharge was the effect of stricture of the urethra. In accordance with this opinion, he examined my urethra with a bougie; and, in consequence of *experiencing some little difficulty* in passing it into the bladder, he said 'You have a slight stricture, and must have bougies passed regularly for a few weeks.' This course of treatment was forthwith commenced, and continued for some time, without any perceptible difference in the symptoms. But one day he had greater difficulty in passing the bougie, and, upon his using force to make it advance, something appeared to give way, and the instrument then suddenly passed onwards with a *jumping* sensation. I suffered much pain; and, upon the bougie being withdrawn, there was considerable bleeding from the urethra, which, although not so profuse as upon the immediate withdrawal of the instrument, continued for some hours. The first time I voided

urine, after this operation, I had great scalding; and the first, as also the last, few drops of water were tinged with blood. For some days after this operation there was much soreness and irritation in the urethra, especially on urinating.

"When these symptoms had nearly disappeared, the bougie was again introduced; and, immediately on its reaching the part, where it had stopped at the last attempt, I experienced so much pain, that the instrument (after a slight attempt to pass it) was withdrawn. A few drops of blood followed; and the pain, with other symptoms of irritation, returned. Before these had entirely subsided, renewed attempts to pass the bougie were made at intervals. At length the pain in micturition, and the irritation of the urethra, assumed a continuous character; and now, not half so large a bougie could be passed as that, which had been introduced at the first attempt. Finally (disgusted at these results), I resolved to discontinue all treatment, in the hope that the urethra would regain its natural tone, when left to itself. But, although the more acute symptoms, induced by the operations, were lessened on their discontinuance, I still found that there was always more or less irritation of the urethra, and that the slightest imprudence or excess increased it. Well marked symptoms of stricture now rapidly developed themselves; and, dreading to incur further sufferings, I refrained from seeking assistance."

Similar accounts to the foregoing I am in the constant habit of receiving, in cases of this description, frequently with the addition, that, in the end, the patient was attacked with retention of urine, or that the difficulty in expelling it became so great, that he was only able to void it drop by drop, or in a very fine stream; and

he was thus driven to apply for further surgical assistance.

When we examine cases of similar origin to the preceding, we generally find the stricture to be of a most severe character. Not only are the mucous and submucous tissues of the urethra thickened, but the cells of the *corpus spongiosum* are filled, and indurated by, effused lymph. Indeed this is almost sure to follow the improper use of instruments, no matter whether stricture originally existed, or not. In my enquiries into the history of numerous cases, which had come under my notice, I invariably found, that where extensive indurations in the perinæum existed along the course of the urethra, they made their first appearance, after unsuccessful and violent attemps to pass instruments. I have further remarked, that, in cases of stricture which had been left to themselves, these enlargements in the perinæum more rarely occurred, although the stricture may have been of long standing and considerable extent. For example:—A patient, who consulted me a few days since, informed me that, though he had for many years laboured under symptoms of stricture, he had, notwithstanding, refrained from seeking advice. But, at length, the difficulty in voiding his urine became so great, as to compel him to apply to a surgeon, who tried in vain to overcome the stricture. As the operations were continued, the patient experienced great pain in the perinæum; and there gradually appeared, in that part, a swelling and induration along the course of the urethra. At the time of my seeing him, there was formed there a firm and almost cartilaginous induration, extending from the anterior part of the scrotum, backwards, along the course of the urethra; and, from the account he gave, it was

perfectly evident that this chronic enlargement in the perinæum had been solely produced by the injudicious use of bougies.

In other instances, in which those errors are committed, it is the patient who first fancies he has a stricture. The account he gives is mostly, that he had, some time previous to his applying to a surgeon for the cure of his (imaginary) stricture, contracted a gonorrhœa, of which, however, he was cured. Some time afterwards, observing a *slight twist* in the urine, as it was expelled from the urethra, and, occasionally, a sensation of heat at the time of voiding the urine, with an itching or titillation of the canal for a few moments afterwards, especially about the extremity of the penis, he became alarmed, and sought the advice of a surgeon: stating that he feared he had a stricture.

The surgeon to whom he applied was, perhaps, not much in the habit of passing instruments into the bladder, and, consequently, found some slight difficulty in doing so. The moment this occurred, the case was pronounced to be one of stricture, and the results were too often similar to those already stated. The knowledge, that such errors are committed, should make all parties interested therein exceedingly cautious, as some illustrative examples, I shall hereafter relate, will too plainly and painfully prove.

With a view to the practical consideration and treatment of strictures of the urethra, they are usually divided into three distinct kinds, namely:—spasmodic or temporary; organic or permanent, and the mixed, that is both spasmodic and permanent.

But, as almost all permanent strictures are attended with some symptomatic spasm of the urinary muscles

in relation to the urethra, I think the last division superfluous; and, consequently, all that is strictly necessary is, the division of strictures into two principal kinds, namely:—*spasmodic* and *permanent;* whilst these may, with great propriety, be again divided into distinct varieties, which, when we come to the consideration of each principal kind in detail, will be duly noticed.

CHAPTER II.

ON SPASMODIC STRICTURES, THEIR CAUSES, PATHOLOGY, SYMPTOMS, AND VARIETIES.

As all forms of urinary obstruction, comprised under the general term of strictures of the urethra, are, with rare exceptions, in their origin purely spasmodic, this variety claims our first consideration. At the same time, an account of the development, progress, and symptoms of Spasmodic Strictures, whilst it will serve to illustrate their nature, will also in a great measure equally instruct us in the primary history of the more serious permanent contractions of the urinary canal, of which I shall by and by have to treat.

That species of urinary obstruction, generally denominated Spasmodic Stricture, is, strictly speaking, no stricture of the urethra at all:—that is to say, the impediment to the passage of the urine does not arise from a morbid contraction of the urethra *per se*, as the name would lead us to infer, and as some surgeons affirm, but results from what may be denominated a mixed action. In other words, whilst the immediate and

exciting cause of the spasm exists in the urethra, the spasmodic action, which actually creates the obstruction, mainly arises from a derangement in the muscular system of the genito-urinary organs.

"It is very easy to persuade a patient, when he has a stricture, that the occasional obstruction to the discharge of the urine arises from spasm; and when, after any little irregularity, he is unable to pass his urine, and feels a girding and pain in the seat of the stricture, and when he finds that the surgeon cannot introduce a bougie, he attributes these indirect effects to a spasmodic state of the stricture. If he is relieved by the warm bath, opium, and other antispasmodic medicines, he is then convinced that he has a stricture, which is occasionally spasmodic.

"But the patient is deceived, and, what is of more consequence, the surgeon is also in an error; for it can be shown that this spasm is not in the stricture itself, but that it is a spasmodic action of the muscles surrounding the urethra, and the question may be argued thus:—

"In the voluntary motions of our limbs there are two distinct states of muscular action necessary to the movement. If the finger or hand is extended or closed, it is not by the mere contraction of one muscle forcibly elongating its antagonist, nor does the relaxation of the one follow the contraction of the other; but if the action be to bend the finger, the same influence which is exerted to excite the flexor to contraction, is also exerted to relax the extensor.

"There is an analogy between these muscles and those surrounding the several viscera. Thus, in the effort to evacuate the rectum, the contraction of the upper part of the intestine is necessarily attended with the perfect relaxation of the sphincter ani. It is the same in the

uterus during delivery. The orifice and fundus have antagonist fibres, and the contraction of the body and fundus is accompanied by relaxation of the fibres surrounding the orifice.

"The bladder is surrounded with its muscular coat, *the detrusor urinæ;* the neck of the bladder is surrounded with the *sphincter;* the prostate gland is embraced by the *compressor prostatæ;* the membranous part of the urethra is pressed by the *compressor urethræ* and *levator ani;* and the sinus and a considerable part of the urethra are surrounded by the *ejeculator seminis.* These muscles are all opponents to the muscular coat of the bladder, and are in sympathy with it; not that sympathy which combines in simultaneous action, but that connection which exists betwixt flexor and extensor muscles, and which provides that the action of the one shall be attended with the relaxation of the other.

"In the diseases of the urethra, as in other parts of the body, inflammation precedes or accompanies increased sensibility. Where stricture is, there is much increased sensibility; and wherever the stricture is exquisitely sensible, there we are sure to find the function of the muscles deranged, forming the case which is called spasmodic stricture. This spasm is produced by the acrid urine coming in contact with the sensible surface of the urethra, which, being inflamed, is not imbued with its sheathing secretion; instantly the muscles are called into action; the ejaculator seminis contracts by impulse, as is its nature, when excited, and the other sphincter fibres contract firmly; so there is frequent call and frequent stoppage of the urine, with painful contractions of the fibres on the inflamed and excited parts. This action of the muscles of the urethra does not merely mechanically

obstruct the flow of urine, but by the sympathy existing betwixt these muscles and the *detrusor urinæ*, or muscular coat of the bladder, the contraction of the bladder ceases.

"Thus, out of a party of men drinking together, there will often be one who before the end of the evening cannot pass a drop of urine. On enquiry, it will be found that he has had slight disorder in the urethra, perhaps the remains of gonorrhœa. It is a mistake to suppose, in such a case, that the fulness of the vessel has closed the passage to the urine; the same cause which has inflamed his countenance adds to the inflammation and sensibility of the urethra; and the first drop of acrid urine is followed by contraction, spasm, and obstruction.

"Thus the apparent changes in the stricture of the urethra are attributable to the disorder of the neighbouring muscles, muscles which surround the stricture, if it be seated within five inches of the bladder.

"*As to spasmodic stricture, it has no existence; and the symptoms attributed to the occasional contraction of the stricture are with more truth to be ascribed to the deranged action of the surrounding muscles.*"*

Spasmodic strictures therefore may be defined as the consequences of inflammation in the urethra, or of the existence of a state of morbid sensibility and irritability of that canal, which, on micturition, produce a disordered action in the expulsive muscular system of the urinary economy, whereby is occasioned more or less impediment to the free and natural discharge of the urine. This disordered action ranges through every degree of intensity, from a mere slight hesitation in voiding urine, to a total retention.

In many instances the first attack of spasmodic stricture

* Bell on Diseases of the Urethra.

is both sudden and severe. Indeed, it is so sudden and intense as to occasion a partial, if not total, retention; this constituting probably the chief reason of surgical aid being first sought.

But whether spasmodic stricture attacks the patient suddenly, or gradually, it is always preceded, or accompanied, by a degree of inflammation, more or less severe and general. In those cases, in which the spasmodic affection only gradually developes itself, the disordered action is mostly the result of a preceding acute inflammatory attack, terminating in a chronic species at one or more points of the urethra. When a patient in this state voids his urine, it produces, on its passing over the inflamed spots, an amount of pain proportionate to the intensity of the inflammation or morbid sensibility; whilst, through the sympathy existing between the urethra and the muscles surrounding it, the action of the latter becomes *instantly disordered, thereby occasioning* more or less *difficulty and irregularity in the expulsion of the water.*

We constantly see an analagous effect produced in patients, *labouring under a common inflammatory sore* throat. When they swallow any fluid (especially if it be at all stimulating), as it passes over the inflamed parts, pain is created; a simultaneous difficulty is experienced in swallowing; and an irregular action of the muscles of deglutition, and of those surrounding the throat, is produced. Could we, under these circumstances observe the downward flow of the fluid, as we can that of the urine as it passes from the urethra when spasmodically affected, there can be no doubt but that we should find it was contracted and irregular. Fortunately neither the patient nor the surgeon can do so. I say fortunately, because I fear, if it were otherwise, we should have the same erroneous

opinions formed, and the same unnecessary poking of instruments down unfortunate patients' throats, to remove imaginary strictures of the œsophagus, that we now too often have up their urethræ for the cure of equally non-existing obstructions.

To those general observations I have only to add, that in some instances every trace of inflammation disappears from the urethra; and although we may be unable to detect during life, or after death, any alteration in the natural appearances of the tissues forming the urethra, yet we constantly observe that its undue sensibility, and the irregular spasmodic action, or, in other words, spasmodic stricture, continue long after the disappearance of its primary exciting cause.

Having made these brief remarks on the causes and nature of spasmodic strictures, I shall now proceed to a more minute consideration of the different circumstances under which patients first become liable to them. Here I may conveniently divide spasmodic strictures into two varieties, viz., into those which result from sudden and severe attacks of inflammation, and those which are developed more slowly and are the consequences of chronic inflammation, or the existence of prolonged irritation in the urethra. The former we may denominate *acute inflammatory,* the latter *chronic spasmodic stricture.*

Acute inflammatory spasmodic strictures mostly attack patients labouring under some disease of the bladder, the prostate gland, or the urethra (generally the last), and the disease is more frequently gonorrhœa than any other. The circumstances, under which the spasmodic affection is superadded to the original malady are, pretty often, somewhat like the following: - A young man is attacked with gonorrhœa; but, as "he has only a clap," to use

the common and foolish language too prevalent with patients, he neither thinks it necessary to lay himself up, or worth his while to obtain regular professional advice, contenting himself with taking some of the common forms of medicine usually prescribed in these cases; and he probably obtains some relief from them. Yet more or less inflammation of the urethra remains; and the discharge still continues. In this state, either from necessity, or for his own pleasure, he dines with a mixed party of friends and others. He is asked to take wine, and, to elude observation, readily complies. Afterwards, either from a want of firmness, or from a fear of exciting suspicion, he continues during the evening to drink like his neighbours. His whole system becomes heated and excited; and the urethra, already gorged and inflamed, is quickly rendered still more so. In this state, and most likely in the midst of his debauch, he suddenly feels an urgent desire to urinate. Upon his attempting to do so, no sooner does a small quantity of urine (rendered unusually acrid by his potations) pass from the bladder into the inflamed and morbidly sensitive urethra, than he experiences the most intense scalding pain; whilst, simultaneously, violent spasms arise, and the flow of urine ceases; but not so the desire to urinate. On the contrary, every moment that passes renders it more urgent and imperious, compelling him to make the most powerful, although fruitless, straining attempts to expel his urine. At the same time, the violent spasmodic contraction of the muscles surrounding the inflamed urethra, which these attempts occasion, increases both the pain and difficulty. Occasionally these efforts are so far successful, that a small quantity is, as it were, squirted out, without, however, affording him any relief; and, in this

deplorable condition he remains, until relieved by nature or art.

In other cases, patients labouring under gonorrhœa, use powerful caustic or other astringent injections, with a view to arrest or cut short a threatened attack; and, after using them, the inflammation has been greatly aggravated, and results, similar to those above detailed, have ensued. Sometimes patients are foolish enough to go out hunting whilst suffering from acute gonorrhœa, thus producing a spasmodic retention of urine.

These are certainly very frequent causes of that form of urinary obstruction, I have denominated acute spasmodic stricture. But they sometimes arise from other sources, as, for example, from the lodgement of small calculi in the urethra, or from injury inflicted by the unskilful introduction of instruments; and I lately met with a case where the attack arose from excessive self-abuse.

The first violent attack may spontaneously subside, or be relieved by the simple use of hot baths, or fomentations to the parts, or, at all events, by the introduction of the catheter. When next the patient has occasion to urinate, after his relief with the catheter, he may be able to do so, although the stream will mostly be of less volume than before the attack; and there will always be felt a certain degree of pain as it passes along the urethra. In some instances the patient is gradually restored to the full power of urinating; in others, after he has passed his water tolerably freely for a time, he will on a sudden, and without any apparent fresh cause, be again attacked with retention. Occasionally, he will for a succession of days be seized with a retention of urine once in every twenty-four hours, and, singular to say, always at the same hour.

These attacks, after lasting for an hour or two, mostly cease of themselves; sometimes, however, it is necessary for their relief to have recourse to the catheter.

A patient, having thus suffered, may become to all appearance tolerably well in a week or two, only experiencing a slight degree of heat and pain as the water passes. When, having drunk a few glasses of wine, he is again suddenly attacked by spasms and retention, especially if he has drunk claret or champaign.

These cases are for the most part those of young men, who seldom have the good sense or the firmness to refrain (at least for the necessary time to effect a complete cure) from hunting, shooting, wine, illicit intercourse with the other sex, and other nearly innumerable modes of indulgence and excitement. The result is, that their urethræ, under the combined effects of disease and imprudent excesses, are kept in a constant state of irritation; and, besides being at all times unable to evacuate their urine properly, they are harassed by repeated sudden attacks of more severe spasms, which occasion still greater difficulty in urinating, or even total retention. In addition to these symptoms, they always experience a more frequent than natural, and at times an almost incessant, desire to make water.

This prolonged existence of inflammation and irritation in the urethra leads at length to more or less thickening of its coats; and as this occurs, it generally happens that the inflammatory spasmodic attacks become both less frequent and violent; whilst the urine is voided with comparatively little pain, and in a more uniform stream, though in a less volume than natural. This mitigation of the hitherto urgent and painful symptoms too often lulls the patient into a false security. Thus whilst the progress of an

ultimately more serious disorder is slowly and imperceptibly going on, he fancies, from the comparative ease and comfort with which he voids his urine, that he has nothing more to fear; that nature is gradually accomplishing his restoration; and, in some cases, if his future mode of life be regular, years may elapse before he is aware of the error into which he has fallen. In this way he is led to think lightly of the formidable disease that has in the meantime been so insidiously invading his urethra, in the form of one or more permanent strictures.

The preceding observations will, it is hoped, not only fully illustrate the origin of inflammatory or acute spasmodic stricture, but its progress through its different phases, until it terminates in a permanent contraction of the urethra.

I will now offer a few remarks upon that form of spasmodic stricture I have termed chronic. It often happens, under the earlier circumstances mentioned above, that by judicious and prompt treatment, conjoined with care on the part of the patient, the acute inflammation of the urethra, and the retention thereby caused, are in due time removed; and the patient is afterwards hardly sensible of any alteration in the manner of voiding his urine. Nevertheless, if his attention be particularly directed to the point, he will then become sensible that, on the urine passing over certain parts of the urinary canal, there is increased sensation at those parts, with some degree of hesitation, if not positive difficulty, in its further progress.

Sometimes the patient will tell us that he feels the water stopped for a second, and then that something, as he expresses himself, appears suddenly to give way, after which the urine passes freely.

Although these details may serve to illustrate the origin

and progress of a vast number of cases, they do not apply to all, perhaps not even to the majority; it being certain that, of the number of individuals who have laboured under gonorrhœa, very many never suffered from attacks of spasmodic retention of urine, as a consequence of the inflammation which always more or less accompanies that disorder. It is true that this disease occasions great pain and scalding as the urine is voided, especially at the commencement of the attack; and, in consequence, some degree of involuntary spasmodic contraction occurs. This, added to the diminution in the natural diameter of the urethra, resulting from the swollen state of its vessels, for a time causes the urine to be voided with great pain in a diminished, forked, and interrupted stream. But as the gonorrhœa yields to proper treatment, these symptoms gradually subside, and the patient is not only entirely relieved from his disease, but also from future predisposition to stricture, or other disorder of the urethra.

In other instances (arising chiefly from neglect, but, occasionally, in spite of every care), the diffused inflammation, attendant on the gonorrhœal attack, subsides into a species of chronic at one or more points of the canal; and, when the urine passes over them, there results (in proportion to their morbid sensibility) more or less spasmodic impediment to the expulsion of the urine, as explained in my remarks on inflammatory spasmodic stricture. Likewise, if an instrument be introduced along the urethra of a patient in this state, upon the point of it reaching those portions that are the seat of the chronic inflammation, the patient will complain that it causes him extreme pain; whilst, at the same time, the surgeon

feels the instrument spasmodically grasped, and its progress stopped. Occasionally, after a few moments pressure on the part with the instrument, the spasm will yield, and the instrument may then be passed on to the bladder. But, in severe cases, its progress is altogether arrested, and it is only after long and proper treatment that the spasmodic impediment is overcome.

In this phase of his disease the patient no longer suffers acutely; indeed, he can hardly be said to suffer at all. The sensations he experiences have merely a sort of vague character of uneasiness—a kind of titillation or itchiness in portions of the canal, and these not always perceptible. Even when they are perceptible, and whilst they serve to indicate to the experienced surgeon that the urethra is not in its normal state, they are not likely to produce any serious impression on the patient's mind. At times, however, he will most probably have some sensation of smarting and pain when he urinates, especially after drinking, or after any excess. On these occasions, his attention will most likely be attracted to the way in which he passes his water. He will hardly fail to remark that the stream is less than it formerly was; that a longer time is occupied, and greater exertion required, to empty the bladder. He will also observe that, after he has ceased to urinate, his linen is wetted by a few drops of urine which have dribbled from the urethra. He will find that, conjoined to these symptoms, there is a slight mucous discharge. This discharge is very apt, after the patient has been drinking freely, or indulging in sexual intercourse, to assume the yellow appearance of gonorrhœal matter, thereby occasioning unfounded alarm, and sometimes unjust suspicions. The

previous symptoms, and its appearing almost immediately after connection, will enable us to dististinguish one from the other.

This condition of the urethra may exist for months, and even years, without producing any further or more urgent symptoms, especially if the patient be of regular and moderate habits of living. On the other hand, I met with cases in which, not only spasmodic, but permanent strictures, have been completely developed in a short space of time; whilst, again, cases occur where the disease has remained in an incipient state with scarcely any inconvenience to the patient, or any increase for years,—in fact, until the application of some fresh irritant has excited it into action. But, in the ordinary course, this prolonged morbid condition of the urethra terminates, sooner or later, in the gradual and imperceptible merging of the chronic spasmodic stricture into a permanent one; and this conclusion naturally leads me to the consideration of the formation and growth of that kind of urinary obstruction.

It is hoped that the foregoing observations will enable the reader duly to estimate the various exciting causes of spasmodic strictures, also the symptoms, progress, and consequences produced in the urethra, up to a certain point, by an attack of inflammation, no matter what may be the cause. It now, therefore, only remains for me to trace the onward progress of the inflammatory action and its consequent spasmodic stricture, as they gradually merge into, or become complicated with, that organic change in the urethral coats denominated permanent stricture.

CHAPTER III.

ON PERMANENT STRICTURES, THEIR PATHOLOGY, SYMPTOMS, AND VARIETIES.

PERMANENT, like spasmodic, strictures, are either the consequences of a previous inflammation, or of the existence of a morbid sensibility, in the urethra. But whilst the obstructions the latter occasion may be only temporary, and are, at least, always unaccompanied by any organic alteration, the former, as being permanent, necessarily involve, more or less, organic disease.

We have seen, from the preceding observations, that various causes are sufficient to excite in the urethra an attack of acute inflammation, which, although subdued in its original intensity, has, from different circumstances, not been completely removed, but, on the contrary, kept up, or has degenerated into a chronic affection, or, at all events, has left the urethra in a preternatural state of sensibility.

Now the effect of the existence of long continued inflammation, or irritation, in any part of the body, is mostly to cause an alteration in its structure. In like manner, when the urethra is exposed to violent, acute, or long continued chronic inflammation or irritation, it loses its fine elastic characteristic, becomes gradually unyielding, thick, indurated (sometimes even cartilaginous), at the seat or seats of the attack. Whilst the amount of pain and difficulty, in the expulsion of the urine, thereby occasioned, is in proportion to the extent and number of the contractions thus formed.

Further, whilst the existence of even the slightest permanent obstruction to the expulsion of the urine could

hardly fail, did it exist alone, to excite considerable derangement in the urethra, it becomes still more injurious when it is superadded to other maladies. When the urethra is the seat of inflammation and morbid sensibility, or of permanent stricture, separately or conjointly, the natural and vital act of micturition then becomes a proportionately prolific source of increased suffering and disease. In the first place, the acrid urine in its passage acts on the now too-susceptible surface of the urethra as a powerful irritant. And, in the second, the increased exertion, required on the part of the bladder and of the muscles, employed in the evacuation of the urine, to force it through the stricture, occasions the water to be propelled with additional power against the unyielding and morbidly sensitive portion of the urethra. Thus more irritation ensues; whilst the result of this continued undue excitement and straining is to increase the stricture both in extent and density.

In the foregoing account of the origin of spasmodic and permanent strictures, I gave a description of the circumstances under which these disorders for the most part arise. But I must not omit to state that, in some instances, nearly all the primary symptoms, above detailed, are altogether wanting. Thus, I sometimes met with patients suffering from severe permanent stricture, who scarcely ever had any symptoms indicative of its approach. In such cases the patients are mostly married-men of regular habits, and between the ages of thirty-five and fifty. In answer to my enquiries, they generally tell me that, when young men, they suffered more or less from attacks of gonorrhœa, but being cured, they continued apparently well for years; that they subsequently married; and that it was only within such and such a time they first became conscious of any difficulty in voiding urine. They

further tell me that they were at length fully aware they did not make water in a natural manner; but, being wholly unable to account for the difficulty, they neglected to obtain surgical advice, under the impression that it arose from some slight, temporary, and unimportant cause, and would spontaneously cease, as it seemed to them to have arisen. It was only, after finding the difficulty increase, that they became undeceived.

It only remains to be observed, that it is an indisputable fact, that permanent stricture, however slight, can never of itself disappear. On the contrary, unless promptly, and, above all, skilfully treated, it invariably pursues an onward course, not merely feeding itself, but causing an accumulation of agonising diseases in other parts of the urinary and genital organs.

With respect to the symptoms of permanent stricture, they naturally vary according to the extent of the contraction. They are also influenced by the amount of spasmodic action, or irritability that exists in the urethra, either as a permanent effect of the disorder, or as the occasional result of some temporary exciting cause. When, also, after an attack of acute inflammation, producing spasmodic coactations of the urethra, coagulable lymph is at once deposited and rapidly organised (which sometimes occurs), then the symptoms will be more immediately developed, and, from their commencement, more strongly marked. But when (as in the majority of instances) the disease arises from the existence of a subacute inflammation in the urethra (as already explained), the earlier symptoms are rarely so defined as to attract the patient's notice; although it is obvious, that from the very first commencement of the formation of permanent stricture, the stream of urine must have diminished.

Nevertheless, this diminution is often so slight as, in the first instance, to escape notice; whilst the future contraction so slowly increases, and the stream of urine, at the same time, so gradually lessens, as to be nearly imperceptible. Thus the patient slowly and insensibly loses all recollection of the natural size of the stream of water; and it is only when the stricture is removed that he fully estimates the diminution it had occasioned.

It may, then, be stated (bearing in mind the fact I have already mentioned, that as induration succeeds, or is superadded to the existing inflammatory or chronic irritation, the more painful and urgent spasmodic symptoms, which previously harassed the patient, in a great measure subside) that the earlier symptoms of permanent strictures do not amount to more than trifling sensations of uneasiness in voiding urine, or to a kind of tingling heat and itchy feeling. There is mostly, also, a slight mucous discharge from the urethra, which either encrustates its external orifice, or, if it increase in quantity, stains the linen with a gummy colourless mark. These symptoms sometimes remain stationary for an indefinite period, and sometimes disappear and recur at intervals. Any irregularity in diet, any excess in drinking, in coition, or, indeed, any cause of super-excitement, reproduces, or increases them. As the symptoms reappear, or become permanent, more or less pain is felt in the urethra, especially in the region of the stricture, at the moment of urinating, and for some time after. The mucous discharge (when it exists) is increased in quantity, and the stain it leaves upon the linen assumes a slight yellow tinge. The stream of urine loses its rounded form, becomes flattened, forked, or twisted; and after the act of micturition is apparently finished, a few drops of water dribble from the

canal; the desire to urinate becomes more frequent; and now again indications of increased sensibility, of renewed inflammatory action and spasms, appear. These, in every way, augment the disease; add to the patient's suffering; and if they fail to excite notice, and the adoption of surgical treatment, they are all aggravated in proportion to the neglect with which they are treated.

The pain, now experienced, is not only more prolonged, but becomes most acute; the discharge, too, is more abundant and acrid; the stream of urine is much lessened in diameter; greater muscular exertion is necessary for its expulsion; a longer time is required to empty the bladder of its contents; the desire to urinate becomes more frequent; the power of retention, if not in a situation to evacuate it the moment the desire to do so is felt, is nearly lost, and, under any circumstances, can only be exercised at the expense of much pain. Moreover, the external orifice of the urethra and the glans penis become red and inflamed. When the patient urinates, he is often observed to stretch the penis forwards to assist the escape of urine, and this more especially at the commencement and termination of the act. Should he still foolishly neglect obtaining the necessary surgical assistance, the stricture continues its onward course, embittering every moment of his life, for he is harassed, day and night, by an almost incessant and agonising desire to urinate; whilst the quantity he voids at each time is exceedingly small, and causes the most intense scalding pain. The bladder is never emptied; and if he expel his urine in a stream, it is scarcely larger than a straw, and it frequently only passes guttatim.

The existence of these symptoms (unless the patient be advanced in life, and approaching that period when pros-

tatic diseases mostly develope themselves) cannot fail to indicate the disorder with which we have to contend; whilst, even in the exceptional case I have just stated, it requires only a very slight enquiry to set the question at rest. For instance, if the patient is advanced in years, and tells us that all through life, and up to a recent period, he expelled his urine naturally, we may then feel assured that the cause of the difficulty he experiences arises from prostatic disease, and not from stricture.

The extent, thickness, and consistency of permanent strictures vary considerably. They range through all the intermediate grades between the most simple (the thread-like, which, when a soft wax bougie is introduced, marks it with the appearance as if it were tied with a ligature or fine thread) and those occupying at intervals nearly an inch of the urethra, of great density, horny hardness, of such an extent, too, as to involve not only the urethral coats, but the surrounding tissues, and thus frequently occasioning so considerable an enlargement in the perinæum, as to be perceptible both to the eye and touch.

The following details, extracted from the *Lancet*, page 463, for May 1st, 1847, of a post-mortem examination of a patient who died in Guy's Hospital, affords a very melancholy illustration of the extent of the obstructions sometimes formed in the urethra by permanent stricture, and, at the same time, of the morbid effects produced by it in the other urinary organs.

"The left kidney was three or four times larger than the right, which was about one third the natural size. It presented a very distended pelvis, filled with puriform fluid and small depôts of pus, both within the cortical and between the tubes of the tubular portion of that organ. Pus might be pressed from the papillæ. The tubular

portion was coarse. The right kidney, likewise, filled with puriform fluid, presented little cortical or tubular structure. The pelvis was greatly distended. The ureters were both greatly distended with puriform fluid. The bladder contracted, the parietes exceedingly thickened, and it contained a little purulent urine; its mucous membrane red, and in patches ecchymosed and rugose. The power of the ureters was unable to overcome this violent contraction. Hence their great distension. The membraneous portion of urethra distended, and the surface covered with puriform lymph not easily detached. In front of this the caliber of the urethra was closely contracted, so much so, as only to admit the entrance of a very fine probe. This constriction was half an inch in length. The tissues forming the constriction were of cartilaginous firmness. The urethra in front of the stricture appeared natural. The specimen was taken from a man aged twenty-eight, who had had stricture for five or six years. The symptoms he had, while in Guy's Hospital, under Mr. Morgan, were dribbling away of the urine, which was alkaline, and loaded with puriform mucus; great pain over the pubis, the bladder being distended. No instrument could be passed, and it was deemed inexpedient to open the bladder; extensive disease of it and the kidneys having been diagnosed. He sank on the twelfth day after admission."

Permanent strictures are usually divided into three kinds, viz.:—the thread-like, the broad or ribbon, and the irregular. The first, I believe, is also called, by French surgeons and by Sir Charles Bell, the "bridle stricture," and is the least severe form of the disease. The second, as its name implies, is of greater extent than the first, either from the first attack of inflammation being more

acute and extensive, or from its gradual increase. The irregular stricture, like the preceding ones, is the result of attacks of inflammation, which, instead of producing, as in the broad, a uniform contraction, occasions irregular indurations of the urethra, with slight intervening spaces free from contraction, or being only slightly contracted.

In addition to these divisions, permanent strictures are subdivided, by some authors, into such as are permeable to instruments and such as are impermeable; also into the inflammatory, the irritable, and the bleeding. But as there are really very few severe permanent strictures that do not present some or all of those symptoms at certain stages of their progress, I do not think it necessary to amplify and complicate the subject by making so many divisions, as the classification of these merely prominent symptoms would require, if treated separately.

With respect to the situation of permanent strictures, they may occur in every part of the urethra. Some authors except the prostatic portions, whilst others make no exceptions. For my own part, whilst I should not like positively to assert that strictures never occur at the prostatic portion of the urethra, yet I feel fully convinced that such is rarely the case, and that a diseased prostate has been frequently mistaken for stricture. Be this, however, as it may, its most common situation is about the juncture of the membraneous and bulbous portions of the urethra. Other strictures are more frequently found before than behind these portions of the canal, although some are occasionally detected in the latter.

In the preceding observations, I have adverted to the most usual forms of permanent stricture; but there remains a species which demands our special attention, first, in consequence of its serious and eminently

dangerous complications; secondly, because of its deviation, at its origin, from the ordinary symptoms of stricture; and, lastly, because the treatment, it requires at the commencement of the attack, differs considerably from that of other varieties of the disease: the species I allude to owes its origin to mechanical injuries.

Mechanical injury to the urethra may be inflicted internally or externally. Internal injury can mostly only arise from the unskilful introduction of bougies, which subject I have already noticed. I shall, therefore, confine myself here to external injuries, as an exciting cause of morbid contractions of the urethra.

External injuries may be incurred by falling astride a gate or beam, or in any other way whereby a blow may be struck on the perinæum, such as a kick, or by a rider on a horse being thrown suddenly forward on a saddle, and striking the perinæum against the pummel.

In some instances, the injury resulting from blows merely amounts to a contusion of the urethra and the rupture of some of its vessels, but without any evident injury to the external parts. In others, in addition to the injury sustained by the urethra, the vessels of the external parts are likewise ruptured, thereby occasioning more or less effusion, which, if absorption does not take place, terminates in induration of the perinæum, often extending to and involving the urethra.

When the violence has been very great, the urethra is often ruptured; in which case, if the accident is not immediately detected, and means quickly taken to counteract its consequences, when next the patient urinates, extravasation of urine occurs, which at once leads to the formation of abscesses, terminating in fistula in perinæo. Should the rupture, however, be slight, perhaps only

a trifling infiltration of urine results. In this case, the progress and termination of the abscess will be retarded, or it may happen that the effusion of lymph, and its rapid organization under the influence of adhesive inflammation, so far repair the mischief, as to prevent any further or continued infiltration of urine; whilst that which escaped, in the first instance, is absorbed, and the patient thereby saved from the more immediate and dangerous consequences ever attendant on extravasation of urine. However, although he is so far fortunate, yet, as the ruptured urethra heals, the cicatrix thereby formed almost invariably becomes an obstruction to the expulsion of the urine, and is more severe, unyielding, and difficult of cure, than most strictures arising from other causes.

An eminent surgeon, speaking of the difficulty of these cases, and having given some direction as to their treatment, says:—

"But it may be that these measures of precaution have not been adopted in the first instance, and that you are not consulted until after the lapse of a considerable time, when the wound or laceration of the urethra is already healed, leaving the urethra contracted in the situation of the cicatrix. Here you may, perhaps, succeed in gradually dilating the urethra, as where there is an ordinary stricture. But, in a case which I have already mentioned, I have stated that 'this was not accomplished without a great deal of local and constitutional disturbance;' and so it has been in all cases of this kind which have fallen under my observation. Nor will the occurrence of such difficulties be a matter of surprise to any one who bears in mind that here the object is to dilate not a genuine stricture, but a cicatrix of the

urethra; and who has observed how the cicatrix of an old sore leg inflames and cracks when the subjacent muscles begin to increase in bulk from exercise; or how the endeavour to extend forcibly the contraction after an extensive burn produces the same result. It may be that these difficulties are insuperable under the method of treatment by simple dilatation; and, under these circumstances, a small staff having been introduced into the bladder, the cicatrix of the urethra should be divided by an incision from the perinæum, a gum catheter being introduced afterwards, and allowed to remain until the wound is healed over it. But even then much remains to be accomplished. The cicatrix has still a greater disposition to contract than an ordinary stricture; the bougie or catheter must be had recourse to almost daily, and the patient must be contented, if he can persevere in the use of instruments of a moderate diameter, as the urethra will invariably resent the attempt to keep it dilated by those of large dimensions."*

The preceding remarks are, I most readily agree, well founded, where the treatment of such cases has been confined to simple attempts to dilate the contracted part of the urethra; but, when other means are resorted to, I have no reason to think that these cases are so unyielding as above represented, and that any necessity exists for having recourse to so severe an operation as the one suggested—at all events, until milder methods have failed. Be this as it may, the following case of stricture, arising from the infliction of an injury on the perinæum, will serve the threefold purpose of illustrating the immediate symptoms and consequences resulting from

*Brodie's Lectures.

injury to the urethra; the inefficacy of simple dilatation by the bougie, or the more prolonged dilatation by the retention of the catheter; and, lastly, the efficacy of the potassa fusa in removing the stricture.

"James Derby, who applied to me June 9th, 1836, stated that on the 19th of August, 1835, as he was walking up Drury Lane, he fell, one leg dropping through an aperture in the pavement, whilst the other was bent underneath him. In the fall, the perinæum came in violent contact with the edge of the aperture. He experienced at the time intense pain, which, however, subsided, and he proceeded on his way. An hour or so afterwards, as he was walking along Tottenham Court Road, he felt a desire to urinate. On his attempting to do so, he found, to his great alarm, that he could not pass a drop; and he now discovered, from the marks on his linen, that there had been considerable hæmorrhage from the urethra. He immediately applied to a medical man residing close by, who recommended him to apply at once at a neighbouring hospital. There the house surgeon endeavoured to introduce a catheter, but failed in the attempt. He was thereupon admitted into the hospital; ordered a warm bath, and leeches were applied to the perinæum in the course of the evening. On the 21st, he was able to pass his water, but with great pain and difficulty. After this, he continued to improve daily; and at the end of a fortnight was discharged, voiding at that time his urine pretty freely, though not so well as before the accident. After leaving the hospital, he continued tolerably well for five or six weeks. At the expiration of this period, he remarked that the stream of urine had gradually become less, and that he required to void his urine more frequently than formerly. Happening,

about this time, to meet the house surgeon of the hospital above alluded to; he informed him of the difficulty he had in passing his water. Mr. ——— recommended him to become again an in-patient. Accordingly, a few weeks afterwards, finding the stricture was rapidly increasing, he applied at the hospital, and again became an in-patient under Mr. ———, who succeeded in introducing a small silver catheter, which he desired to be kept in forty-eight hours. The patient suffered considerable pain from the retention of the instrument, which kept increasing, accompanied by great irritation in the passage. After the instrument had been retained forty hours, excessive constitutional disturbance arose. He was seized with frequent and violent fits of shivering, which were succeeded by a severe febrile attack. The catheter was now wi hdrawn, and the requisite treatment adopted to correct the constitutional disturbance. For a month from this time, his general health was so much disturbed, that, in the interval, all treatment for the stricture was abandoned. At the expiration of that time his health was in some degree restored, and the treatment of the stricture was resumed by the occasional introduction of bougies. He was gradually improving under this treatment, when, unfortunately, Mr. ———, regardless of the previous disastrous effects that had resulted from the retention of the catheter, again ordered one to be passed, and kept in forty-eight hours. At the expiration of the allotted time, the catheter was withdrawn, and a larger one immediately introduced. This was retained twenty-four hours, and then taken out. A few hours afterwards, he was attacked as before, with rigors, and for three weeks all treatment was again suspended. His health being once more somewhat

restored, the treatment was resumed by the occasional introduction of bougies. They were, however, much smaller than any that had been formerly used, from the stricture having greatly increased during the suspension of the treatment. This treatment of simple dilatation, was pursued for a fortnight, when a bougie, No. 5, could be passed. At the next operation, a larger instrument was passed than had ever before been introduced. He experienced great pain from the force used, and fancied the urethra was thereby injured. The same system was pursued at the next operation. When, finding that the stream of urine did not improve (notwithstanding the passing of a larger bougie), that his general health was again failing, 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 probable result of the case; and, despairing of a cure, he left the Institution.

After an interval of some months, during which the difficulty of voiding his urine had become greater than ever, he applied again at the hospital as an out-patient. On different occasions, attempts were made to pass an instrument through the stricture, but they all failed. Upon his return home one day, after he had been operated upon, he was attacked as before with rigors. Abandoning now all hopes of obtaining relief, he discontinued altogether his attendance at the hospital.

Some time after this, chancing to meet a patient who had been cured at the infirmary to which I was surgeon, he determined on applying at the Institution.

Upon examination of the urethra, I found a stricture six inches and a half from the external orifice, through which I could not pass even the smallest bougie. The perinæum was much swollen and indurated. Upon the

slightest exertion his urine escaped involuntarily; and when he had occasion to urinate, he could only do so guttatim. He was much emaciated and debilitated.

June 10th.—Reported he felt no inconvenience from yesterday's examination. I therefore applied the kali to the stricture.

June 13th.—I was this morning called up to see a man who, my servant informed me, appeared to be in great pain. I found him to be Derby, whom I had not seen since the 10th. He now told me that after he had left me on that day he was attacked by rigors, the shivering fits continuing, at intervals, till the 11th. On the morning of the twelfth he began to experience great and increased difficulty in passing his water, and towards the middle of the day a total retention ensued, which still continued. I remonstrated with him for not having come or sent to me before, and he excused himself by saying he did not like to trouble me. He was in great pain; and the distended bladder could be distinctly felt above the pubis. I determined upon trying to relieve him by the catheter. After some little difficulty, I succeeded in passing it through the stricture into the bladder, and drew off about four pints of water. I ordered him some medicine, and bade him come to me the next day, if he was sufficiently well to come out.

June 14th.—He came to the infirmary, and said he was much better.

June 15th—Stated he had not voided his urine so well as he now did for several months. I applied the kali, and admitted him as an in-patient.

June 17th.—He reported that he had felt yesterday a slight disposition to shivering, but that it had gone off on his going to bed. I applied the kali.

June 23rd.—He continued improving since last report, and bougie No. 9 could be passed.

June 24th.—Applied the kali. June 27th.—Passed No. 12. His general health was much improved. The indurations in the perinæum had nearly disappeared; and he urinated as well as at any former period of his life.

July 1.—He was discharged cured. His general health was completely restored; and altogether he was quite a different man.

October 10th.—He called at the infirmary, and said that he continued perfectly well.

After the declaration of the eminent surgeon (whose remarks are above quoted) respecting the difficulty, nay the all but impossibility, of curing this variety of stricture, the successful results of the treatment of this case by the kali must, to every unprejudiced mind, carry the strongest conviction of its great value as a remedial agent in the treatment of strictures.

The first and principal symptom, which accompanies a rupture of the urethra from external injury, is the occurrence of more or less hæmorrhage therefrom, as occurred in Derby's case. But this alone will scarcely afford any clue to determine at the first onset the exact nature or extent of injury the urethra has sustained. Even if the hæmorrhage from the urethra be accompanied or quickly succeeded by effusion and tumefaction in the perinæum, we are scarcely in a better position towards forming a conclusive opinion. For, although these circumstances would very clearly denote that the vessels of the urethra and external parts had experienced considerable and extensive læsion, yet, inasmuch as all these symptoms might arise without any actual rupture of the urethra having occurred, it is almost impossible for any one, in the first instance, cor-

rectly to estimate the extent of injury the urinary canal may have sustained. But if, after exposure of the urethra to any kind of violence, one or both of these symptoms appear, and further (no treatment having in the meantime been adopted), the patient, when he urinates, experiences acute pain in the perinæum, with a sensation of scalding and burning in that region as the water passes along the urethra; if, at the same time, the penis becomes swollen, or in a semi-erect state, these additional symptoms, conjointly with the others, afford a tolerably decisive indication that the urethra has been ruptured. Moreover, if those are succeeded by increased swelling in the perinæum, or contiguous parts, then scarcely a doubt can remain on the subject.

With respect to the treatment of these cases, the future comfort, nay, perhaps, the life of the patient, depends on its being prompt and judicious; for when the urethra has been exposed to external violence, followed by more or less hæmorrhage, it is not the ultimate formation of stricture which is alone to be feared, nor is the hæmorrhage itself the only source of the imminent danger which threatens the patient. The evil to be immediately dreaded is, in truth, neither the hæmorrhage nor the subsequent formation of stricture. The great subject of apprehension is, that, the urethra being ruptured, the water, when the patient urinates, will escape from the canal, through the laceration, into the surrounding tissues, become extravasated, and thus place the patient's life in jeopardy, or at least lay the foundation of great and protracted suffering.

With this awful liability suspended over the patient, superadded to the difficulty of assuredly judging whether the urethra has been ruptured or not, until after the serious

consequences of a rupture have commenced, I think that in these cases no one should hesitate, to take at once measures, by the introduction and retention of the catheter, for preventing extravasation. The perfect security, this treatment will immediately afford the patient against the agonies and dangers resulting from extravasation, will amply repay him for any slight and temporary inconvenience, he may incur by the retention of the catheter, even although it should ultimately appear that the precaution was unnecessary. If we do not see a patient till some time after the accident, and find that he has passed his urine in the interval, and that no urgent symptoms have followed, we may, in this case, perhaps, venture on contenting ourselves with watching the case before adopting this treatment. But if symptoms of extravasation already exist, we should not hesitate for a moment to introduce and retain a catheter.

This being accomplished, the further treatment of the case will resolve itself into that adopted in other cases of extravasation of urine.

CHAPTER IV.

ON THE CONSEQUENCES OF PERMANENT STRICTURES—PARTIAL RELAXATION OF THE SPHINCTER OF THE BLADDER—DILATATION OF THE URETHRA POSTERIOR TO THE STRICTURE—RETENTION OF URINE—RUPTURE OF THE URETHRA—FISTULA IN PERINÆO—CONTRACTED BLADDER—ENLARGED BLADDER—CATARRH, PARTIAL PARALYSIS, AND CYSTS OR POUCHES OF THE BLADDER—RIGORS, ETC. ETC.

In detailing the symptoms of strictures, I necessarily noticed some of their more immediate consequences. I shall therefore now merely observe, that whatever may be the species 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 is 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 only do so by the most painful straining. As the disease continues, the water no longer flows in a stream, but is voided drop by drop, or perhaps half a tea-spoonful may, by great straining, be, as it were, squirted out. An ounce or two is all that 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, superadded to the fear not alone of failure, but of the pain which he too-well knows the attempt will cause him; whilst, if he even succeed in the attempt, it does not relieve him from the continual inclination which 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 fearful degree of intensity. The urine now passed is not sufficient to free the bladder from distention; consequently that viscus becomes over distended. The sphincter at its neck no longer retains its power of preventing the escape of the urine, which is consequently only stopped by the stricture. At the same time, the urethra, behind the contracted part of the canal, becomes dilated, and forms, as it were, a second bladder. The urine, that thus involuntarily escapes from the bladder, is constantly dripping from the urinary passage, and when 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 and, in some instances, excoriated, from the continual dribbling of the urine over them. The patient's clothes and linen are 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 fœtid 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.

The sufferings of the patient, already great as they are, may be thus aggravated by a complete retention of urine. In this case, the agonising pain which he endures is only equalled 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; the face flushed. Cold clammy sweats break out at every attempt to micturate. In short, his whole system is frightfully deranged. Should the retention remain long unrelieved, delirium ensues, and the patient's state is at once alarming and imminently critical. Further, the large quantity of urine, accumulated in the bladder, prevents the escape of that secretion from the ureters, which, 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 distention of the urethra behind the stricture, occasioned by the accumulated urine, together with the violent efforts that are made to force it through the stricture, causes the sudden rupture of the urethra behind the obstruction. By whichever of these two circumstances the coherence of the membranes of the urethra is destroyed, the result is the same; namely, extravasation of urine, with all its frightful consequences.

In the preceding remarks, I treated the attack of retention of urine rather as the result of permanent, than of spasmodic, stricture. It is, therefore, necessary to state that, in the latter case, the retention is seldom so urgent, whilst it is also more easily removed. Indeed, there are but few cases of retention from spasmodic stricture that

may not be relieved; and, from my own experience, I am disposed to think that those few cases more frequently resulted from improper treatment, than from the severity of the attack itself.

Another consequence of stricture (which I shall now notice) is fistula in perinæo. This complication of stricture may arise from extravasation of urine, occurring under the circumstances above detailed. However, it not unfrequently happens, that it is less rapid in its progress, commencing, too, whilst the patient is suffering, comparatively speaking, but slight inconvenience.

Its origin and progress, under the latter circumstances, may be traced as follows:—That part of the urethra behind the stricture receives a greater quantity of water than can pass through the obstruction. The aperture is not adequate to the column of urine to be expelled from the bladder. The consequence is, that all that portion of the canal, between the bladder and the stricture, is unnaturally distended; and, as the greatest resistance is at the stricture, so the greatest force is employed there to overcome the impediment. But the force is not sufficient to compel the firm stricture to yield, whilst the consequence of this distention and undue straining is gradually to dilate that portion of the urethra, posterior to the obstruction, until at length a sac is formed, in which more or less urine is always collected. But, as the highly sensitive urethra cannot very long endure with impunity this state of distension, the result is the occurrence, in the first place, of active inflammation, terminating in gangrene. At other times, ulceration occurs, by which process the membranes, forming the urinary conduit, are destroyed; and the urine, no longer retained in the natural channel, escapes into the surrounding cellular

tissues and adjacent parts. Under these circumstances, the scrotum, penis, and perinæum are enormously enlarged. It also occasionally happens that the infiltration extends to the groin and lower part of the abdomen, thereby forming altogether a complicated and formidable mass of disease. For, wherever the urine infiltrates, it carries with it destruction to the parts exposed to its action.

In other instances, the escape of urine is more circumscribed, causing only a tumour in the perinæum. However, in either case, but especially in the former, the situation of the patient is truly awful; and, if he is not quickly relieved by the interposition of art, death is almost inevitable.

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

With respect to the morbid effects of stricture on the urinary bladder, that viscus is mostly the first of the genito-urinary organs, sympathetically and symptomatically, affected by morbid contractions of the urethra. This is shown by the simple fact, that one of the primary symptoms of stricture is an increased frequency of desire to empty the bladder. This frequent desire first arises from what may be termed a sympathetic irritability of the bladder; but, if this diseased action be long continued, it sometimes gives rise to a permanent morbid contraction of that viscus, whereby it altogether loses the power of retaining any but an exceedingly small quantity of urine.

In other instances the opposite of this occurs. For example, the bladder, accommodating itself to the distension resulting from the inability of the patient to

expel his urine, gradually enlarges, until nearly double the natural quantity of water can be retained in it. One of the ultimate consequences, as already stated, of this state is, that the sphincter at the neck of the bladder loses its power of fully retaining the urine, and it is therefore constantly and involuntarily dribbling from the patient.

This accumulation of urine almost always gives rise to chronic inflammation of the mucous coat of the bladder, from which results a profuse, slimy, and tenacious mucous discharge, which, in passing through the constricted part of the urethra, not unfrequently, from its thickness, stops it up, and occasions severe and dangerous attacks of retention.

This morbid secretion, if allowed to remain some time, is deposited in the urinal; and if the urine be poured off, it will be found to adhere 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 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 it sometimes supervenes on an attack of retention of urine.

Further, it often happens, when the stricture or strictures are removed, that the bladder, in consequence of the distended state in which it has been kept, has lost its contractile powers to such an extent, as to be unable completely to empty itself. Thus we are frequently, on passing a catheter immediately after the patient has voided his urine, and apparently emptied the bladder, able to draw off a considerable quantity of urine. The details of a case, to which I shall hereafter have to allude, will very aptly illustrate this fact.

Further, in severe and protracted cases of stricture, the bladder is constantly over-distended by the accumulated urine. The powerful muscular contractions, required for the expulsion of the water from the proper muscular coat of the bladder, and from the abdominal muscles, are so great, that the internal or mucous coat of the bladder slips, or is protruded, as it were, between the fibres forming the external or muscular coat of that viscus. Thus a pouch is gradually formed. Sometimes two or three of these cysts or sacculi are found in one bladder, capable of holding from one to six ounces of fluid.

Finally, another very frequent, distressing, and (to the patient) alarming complication, in cases of stricture, is rigors. I say alarming to the patient, because, although the symptoms, accompanying an attack, are urgent and harassing, I have never known them to prove serious, or terminate fatally. Their symptoms strongly resemble an attack of intermittent fever; and some patients are exceedingly liable to them, the attacks coming on without any very traceable cause, beyond the stricture. In other cases they succeed the first introduction of an instrument through the stricture. They also almost constantly follow the employment of any violence in passing a bougie. For instance, the following cases are not uncommon:—A patient has a severe stricture, through which the surgeon, after some time, succeeds in passing a bougie; but, to accomplish this, he has had recourse to force, which produces more or less bleeding from the urethra. When next the patient makes water, after the operation, he experiences, upon the urine reaching the stricture, a most acute, lancinating, and burning pain in that part, as well as a considerable degree of uneasiness along the whole canal. The pain *thrills all over him*, as

he expresses himself; and, simultaneously, a slight shivering fit occurs, which is rapidly succeeded by another and another. The rigors having thus commenced, the patient presents 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. On a sudden he experiences a chilly creeping sensation pervading every part of his body; a rigor ensues, which is repeated at brief intervals, until the sufferer becomes exceedingly hot; and, finally, a profuse perspiration occurring, he is relieved; thus presenting, and passing through, all the stages of an attack of ague. If the attack has not been very severe, the patient, in twenty-four hours, is restored to his previous health, with the exception that he is somewhat debilitated, and in this state he continues a few days. In other instances, weeks elapse before the patient is restored to his previous health. Further, when rigors have once occurred, they are exceedingly prone to return, even upon the slightest cause. Lastly, I have seen patients, who never had any symptoms of the malady in question, who were almost instantaneously attacked by them upon making water *directly after* an operation that had caused hæmorrhage. I have also remarked, that in proportion to the time that elapsed between the operation and the patient's making water, the chances of the attack of rigors increased or diminished. On this account, in these cases, I generally operate with the catheter. By this means the bladder is emptied at the time of the operation, and the patient being, consequently, able to remain longer without voiding his urine, is less liable to an attack than he otherwise would be. But it must be confessed that, in spite of every precaution, attacks of rigors will, in some cases, be a

frequent and alarming accompaniment of strictures of the urethra.

Having thus brought under the reader's notice, somewhat in detail, most of the ordinary maladies, induced by strictures of the urethra, in other organs of the genito-urinary system, I shall now, and this only summarily, mention some other morbid consequences incidental to them. Amongst these are disorders of the prostate gland, enlargement of the urethers, and fatal diseases of the kidney, also severe maladies of the testicles, hernia, and a varicose state of the blood vessels of the lower extremities.

There are two other concomitants of stricture of such importance, as to demand particular notice—I allude to false passages and hæmorrhages, though I have considerable doubts whether I can fairly class them among the consequences of stricture. However, be this as it may, it will not be out of place to treat here of these complications of the disease, after having referred to its natural or usual consequences. The subject of the formation of false passages is a most difficult one to *discuss, without,* on the one hand, alarming the non-professional reader, or, on the other, appearing to assail the character and talents of the general body of the members of the medical profession. But, as truth must ever be paramount to all other considerations, I am compelled to assert that the formation of false passages, in cases of stricture of the urethra, is of daily occurrence. Startling as this assertion will doubtless appear to some readers, I have before me, in corroboration of it, no less than three, out of four, strictured urethræ, that were brought to me from the dead house of one of our largest metropolitan hospitals, in each of which this accident had occurred, and death had

been the result. I should state, however, that the injuries had been inflicted previously to the patient's admission to the hospital. In one of these, there are no fewer than six false passages about the bulbous portion of the canal, forming complete holes in the urethra around the stricture, which does not appear to have been a severe one, and was situated at the junction of the bulbous and membranous portions of the canal. The membranes of the urethra are perforated and lacerated in every direction.

The first of the six is at the right side of the canal, about half an inch BEFORE THE SEAT OF STRICTURE; the second about a quarter of an inch BEFORE. The first runs on into the second, and they are then continued onwards in common for about two lines, after which there is another opening into the right passage, *just before the stricture*. The false passage, however, continues to advance at the side of the urethra for nearly a quarter of an inch, and then again breaks into the right channel just *behind the stricture*. But, notwithstanding this communication with the right passage, the false one is continued onwards (inclining outwards from the urethra) for a little more than an inch, and then terminates in a cul-de-sac. Just where this false passage inclines outwards, another one is formed, inclining inwards towards the centre of the canal, and this, after passing forward under the membranes of the urethra for about an inch, enters through them into the right passage. The instrument, taking this route, appears to have been then carried forward about half an inch, and again made to deviate from the right course by penetrating the mucous membrane just at the commencement of the prostatic portion of the urethra; it is then carried forward between the walls of the urethra and the right lobe of the prostate, till it again passes

through the urethral membranes, and enters the bladder just at its neck. Besides these, there is another, commencing in common with those just described, but branching off still more towards the central line of the urethra. In this case, the instrument appears to have been carried forward, under the membranes of the canal, nearly through the whole course of the membranous portion, and then to have been made to enter the urethra at the centre of its prostatic part. These false passages all arise on the right side of the urethra, looking down it from the glans penis.

Turning now to the left side, we first observe an opening at the side of the urethra *exactly opposite the second*, already described on the right side; and it appears as though an instrument had, after forming the first part of the false passage on the right, been pressed forward as before stated, when tracing the course of the false passages on that side, then made to enter the urethra at the second opening already mentioned on the right side, across the canal, where it formed this first opening on the left, thus, as it were, completely transfixing the two sides of the urethra. There is another false passage on the same side of the canal, just at the junction of the bulbous and membranous parts. There are also indications of the commencement of other false routes; but to give a minute description of the frightful evidence of gross mal-practice which the appearances of this unfortunate creature's urethra presented, would, I imagine, be no more possible, than it is in the power of language to describe the agonising sufferings, which he must have endured during the course of their perpetration.

That we have, in the preceding statement, the strongest and most lamentable evidence of ignorance and rashness,

cannot for a moment be doubted, especially *as the first three false passages actually occurred in a healthy part of the urethra, where no impediment existed to the advance of an instrument in the right direction.* How frightful a picture is this to contemplate! Indeed, it would almost, at first sight, appear incredible that injury so extensive could be inflicted on one man's urethra. Yet I have too much reason to fear that this is by no means an isolated case; and I much doubt, if a true record were kept of the consequences resulting from rash or ignorant attempts to pass instruments into the bladder, whether numerous and equally deplorable instances of the dangers resulting from ignorant or rash manipulation of urethral instruments might not easily be found.

That a false passage may be formed, notwithstanding the greatest care and skill on the part of the surgeon, I readily admit; but I deny that they bear any proportion whatever to those which result from rashness, violence, and ignorance. When such an accident occurs, where the greatest caution is used, the operator can hardly fail to blame himself. How much more then should he reproach himself, who, in a fit of impatience at being foiled in his attempts to overcome the obstruction, rashly and, I may say, brutally thrusts his instruments onwards at all hazards, thereby exposing his unfortunate patient to the risk of incurring the most terrific agony and the most imminent danger; all this, too, without the possibility of any benefit arising therefrom, in the slightest degree, commensurate with the serious injury that is likely to be inflicted.

At what stage of stricture a false passage is most liable to be made, is a question that at once suggests itself to the mind of every inquirer interested in the treatment of

this disease? From my own experience, I should say that there are only two states of stricture, in which it is at all probable that a false passage will be formed, unless the operator be either grossly ignorant or careless. The first is, when the contracted urethra is only permeable to an exceedingly small instrument—the smallest, in fact, that is made; the second, when it is impermeable to all instruments. In either of these cases, it is possible that the most skilful surgeon, in attempting to effect a cure by the ordinary means of dilatation, may make a false passage. But when a surgeon makes a false passage, where a stricture is permeable to a No. 1 or 2 bougie, nothing can extenuate so gross an act of mal-practice. The greater probability of a false passage being made in these two stages of stricture (apart from the reason that a stricture when it has reached either of these points is mostly at its worst) appears to me to arise from the line of practice usually adopted to effect the cure. The common mode of cure, recommended by the majority of surgeons, is that called dilatation. By this is meant the gradual dilatation of the strictured portion of the urethra with variously sized wax, gum-elastic, or metallic bougies. The ordinary direction given, is to commence the treatment with an instrument of such a size as it is thought will pass through the stricture; but, if it does not, then to use one corresponding as nearly as possible to the size of the stream of urine that is voided. Now if we follow these rules in the cases above mentioned, we can only employ a very small instrument; and a flexible one of this size, a gum-elastic for instance, will be so weak, as to be nearly useless. Whereas, on the other hand, if we attempt to give it firmness by inserting into it a wire stilett, its point will be so sharp, as to make it a matter of the *greatest difficulty to prevent* its lacerating the urethra,

even when the slightest pressure only is used; and if any force be employed, then laceration is sure to occur. Independently of this danger from the instrument, the urethra, from its prolonged state of irritation, and the repeated attacks of inflammation under which it has suffered, is much firmer and thicker at the seat of stricture than are the membranes, (forming, as it were, the walls of the canal,) both before and behind the contracted part. As a natural consequence, the fine point of such an instrument, as we are now alluding to, is much more easily forced through the naturally delicate and healthy urethral membrane, than the hard and diseased part. When this occurs, the usual result is, that the instrument, instead of passing through the stricture, passes below and behind it, and is pressed onward into the cellular tissues between the rectum and urethra,—in some cases passing upwards between the former on the one side, and the prostate gland and bladder on the other. In others, again entering the urethra behind the stricture, it is carried forward along the remaining portion of the urethra into the bladder; and, in some few instances, it has been thrust into the rectum! Whenever the first or last accident occurs, the surgeon, on a careful examination per anum, can hardly fail to detect his error. Should the other take place, then both surgeon and patient may be deceived; but frequently, before they have ceased to congratulate each other on the success of their *coup-de-main* treatment, symptoms appear which turn their joy into disappointment and sorrow!

In most cases the primary symptoms, arising from the formation of a false passage, are profuse hæmorrhage, violent scaldings on urinating, and rigors. These, in some cases, are followed, in a shorter or longer time, by the forma-

tion of abscess in the perinæum, and, ultimately, by the establishment of a fistulous communication between the urethra and perinæum. As it, however, occasionally happens, that notwithstanding the laceration of the urethra, the patient escapes without any of the foregoing symptoms appearing, the operations in this case are continued, and the unnatural communication is dilated to the size of the external orifice of the urethra. The patient and surgeon then think the stricture is cured, notwithstanding that the flow of urine continues smaller than could be expected (regard being had to the size of the instrument passed); and that the act of micturition is accompanied by considerable irritation and scalding. But as they are ignorant of the true cause of these circumstances, they attribute them to the irritation arising from the passing of the bougies, or whatever other instruments are used; and when the full sized one can be passed, they imagine that if the instrument be discontinued, the urethra "will recover its tone," and all will be well. The use of the instrument is consequently discontinued; but, in a very short time, the unnatural passage contracts; and then the surgeon and patient both exclaim, "There is no cure for strictures—it is not safe when once a stricture has been dilated, to leave off the instrument—it should always be passed once or twice a week." From the opportunities, I have long enjoyed, of obtaining a great variety of information on this subject, I feel well assured, that a great many of these supposed "incurable strictures," are no other than cases of false passages.

From the serious nature of this accident, it is of great importance to be able at once to detect, when the instrument has taken, or is taking, a wrong direction. The symptoms, most likely to indicate this, are, first, a sensation, communicated both to the surgeon and patient, of tearing.

when the instrument is pressed against the stricture; and next, a continued resistance to its progress as it advances, which rarely, if ever, occurs, when it is passed through a stricture. In this last case, the instrument nearly always continues its course without interruption, either into the bladder, or, at all events, until its further advance is impeded by another stricture. But when a false passage is being formed, the resistance to the progress of the instrument is *continuous*, no matter how far it is made to advance. It must be also observed, that when an instrument has been forced in a wrong direction, on its withdrawal it is never felt to be grasped and retained, as it almost invariably is, when it has been first made to pass through a stricture of the urethra.

There will also occur, upon the removal of the instrument, more or less bleeding, succeeded by violent scalding, when next the patient has occasion to void his urine, and followed, in some cases, by a severe attack of rigors; whilst the apparent passage of the instrument through the stricture is *unaccompanied by any relief to the patient*, or by any *improvement in the power of expelling his urine*. Indeed, the last is the most certain indication of the formation of a false passage. If, therefore, when an instrument is supposed to have passed through a stricture, the foregoing symptoms arise, and *no improvement in the power of voiding the urine* follows—these constitute very strong reasons for suspecting that the instrument has taken a wrong direction. I must, however, remark that I do not mean that the stream of urine is *immediately* to improve; because it very often happens, after an instrument has been passed through a stricture, that, *at first*, the water is voided with more difficulty and pain; and it is only in the course of a day or so, that the size of the

stream is materially increased. When an instrument has been passed through a stricture, without the employment of force, and without the patient's experiencing much pain or bleeding, we mostly find that a marked improvement in all the symptoms of the disease occurs within the next twenty-four hours. Therefore, when the contrary is the case, it behoves the surgeon to be exceedingly cautious in his next proceedings, as it behoves the patient seriously to consider the probable amount of experience and skill which the surgeon possesses. Indeed, the next steps, that are taken, may determine whether a case of stricture, originally a simple one, may not assume a complicated character, in consequence of a false passage being formed with all its accompanying evils. Nay more, they may determine whether the patient shall be restored to health and happiness, or be doomed to a premature and agonising death!

Therefore, when an instrument passes beyond the original seat of obstruction, although not into the bladder, and no improvement occurs in the symptoms, we have just reason to doubt that we are in the right course.

However, this must be taken with some reservation, inasmuch as there may be another stricture behind the first, which equally impedes the escape of the urine; or, if there be no stricture, there may be an enlargement of the prostate gland. Thus, we see how uncertain are the landmarks, so to speak, which we have for our guidance in these cases! This uncertainty is another fruitful source of many of the errors that are committed, because the surgeon, (being far more apt, when no improvement takes place, to attribute it to these causes, rather than to any mistake on his own part,) continues the operations, till a false passage is made of such extent, that a

catheter is passed up, the whole length of the instrument; and it is only then, from no urine being voided through it, that all doubt, as to the injury inflicted, is removed. But however difficult it may occasionally be to offer a determined opinion on the course which an instrument is taking; yet, to one experienced in the introduction of instruments into the bladder, there are sensations conveyed to the fingers, at the time of the manipulation, difficult to describe, but easily detected and appreciated by the experienced operator, which prevent him from continuing in a wrong course, should he be so unfortunate as to have commenced one. Thus, whilst one man may go blundering on in the wrong direction, another, with more experience in the exploration of the urethra, will at once detect the error. I will therefore only add, that unless the surgeon feels himself justified by past experience, in taking on himself the responsibility of the case, he is bound, for his patient's sake, nay, for his own, to seek the aid of a more competent judge. If he will not do this, and the patient himself feels any doubt on the subject, I advise the latter not to allow any notions of false delicacy to prevent his seeking further advice—for health and life are no such trifles as to permit us to risk them, through fear of wounding the self-love of another. It has been truly remarked, that no man should employ a physician, or lawyer, from motives of friendship; as in the one case, it may cost him his life, and in the other, his cause.

Hæmorrhage from the urethra, according to my experience, is rarely (I had almost said, never), the result of stricture itself. At all events, I never met with, or heard of, more than two cases in my own practice, in which it had occurred spontaneously to any extent; and,

I consequently look upon it as an exceedingly rare occurrence. Be this, however, as it may, the most common cause is—either laceration of the urethra; rupture of some of its vessels in the introduction of instruments; any other mechanical injury; or the application of caustic to strictures of that canal. When it arises from either of these causes, it is often exceedingly profuse, and always very alarming to the patient, though it can hardly be regarded as dangerous in itself—that is to say, as far as the loss of blood is concerned. But, nevertheless, it is (notwithstanding that many surgeons are apt to treat it lightly, and say that it will do good by *relieving* the stricture) an untoward symptom, and one I never like to meet with in my own practice; as I am perfectly convinced that a *bloodless* cure of stricture is always the best, though, unfortunately, not always to be obtained, even with the greatest care.

CHAPTER V.

ON THE EVILS RESULTING FROM THE INDIFFERENCE OF MEDICAL PUPILS TO THE ACQUISITION OF A KNOWLEDGE OF THE PATHOLOGY AND TREATMENT OF STRICTURES, WHILST PURSUING THEIR PRELIMINARY STUDIES AT THE HOSPITALS—ON THE ERRONEOUS DIAGNOSIS THEY CONSEQUENTLY FORM IN THEIR AFTER CAREER IN RESPECT TO THESE DISEASES—ON THE ABUSE OF INSTRUMENTS IN THE TREATMENT THEREOF—AND ON THE DANGER OF EMPLOYING FORCE IN THEIR INTRODUCTION — THE WHOLE INTERSPERSED WITH ILLUSTRATIVE CASES AND REMARKS.

In the preceding remarks I defined spasmodic stricture to be the effect of the existence of inflammation, or morbid sensibility, in the urethra, producing a deranged action of the muscles employed in the expulsion of the urine.

I described permanent stricture to be an obliteration of the natural diameter of the urethra, resulting from a morbid contraction or thickening of its coats.

If these definitions be correct (as I believe they are), the indications of treatment and cure are at once obvious and simple. We must, in the one case, endeavour to remove the morbid sensibility which creates the spasmodic derangement; in the other, procure the dilatation, or removal, of the contracted or indurated portions of the urethral membranes. Notwithstanding these clear and precise indications as to the aim, object, and end, we should have in view in our treatment, yet nothing can be more diversified, both theoretically and practically, than the means that have been suggested and sometimes adopted.

Before I proceed further; let us consider the case of a young medical man, who has just finished his studies,

visiting a surgical instrument-maker, with the view of providing himself with urethral instruments. Can he be otherwise than completely perplexed, when he sees the various bougies and catheters, both solid and flexible, which are presented to his view? This solid one, with scarcely any curve, he is told, is that used by Mr. ———, the eminent surgeon; whilst another, with a curve more than equal to half a circle, he is informed, is used by Mr. ———, an equally eminent man. When, in addition, he beholds the various instruments, invented or revived by ingenious and bold experimentalists, for incising, or scooping out the indurated portions of the urethra; as also the several complicated instruments employed for the application of caustic; and, again, the really ingenious and harmless, although not very practicable one, for the dilatation of the urethra by fluid pressure; and, lastly, the dangerous steel dilator, invented by a surgeon some time since—to say that he would be perplexed, would, indeed, only faintly express his state of feeling!

To a young surgeon who has not availed himself of the opportunities always more or less presented at our metropolitan hospitals, of acquiring a practical knowledge of the treatment of strictures, and whose knowledge is confined to his mere gleanings from lectures, or books, nothing, I imagine, can be more perplexing than to have to make a selection from the miscellaneous heap just mentioned. The recollections of his anatomical studies and researches will afford him, I suspect, no data on which to determine the merits of the opposing curves, (already alluded to,) through all their intermediate degrees. Further, if he seek to resolve his doubts by the perusal of the numerous works published on the treatment of

these diseases, how conflicting and contradictory will he find them! And could he see the practice of some of their authors, he would, I have reason to think, find a vast discrepancy between it and their published theories.

It is a strange and startling fact, and one imperatively demanding, in my opinion, the serious attention of the profession, that, whilst there is no disease, the pathology of which is more clearly understood, there is scarcely one for which, from time to time, more diversified modes of treatment have been proposed. Notwithstanding, too, this complete knowledge, and these numerous methods of treatment, it is painful to think that there is hardly any disorder that so often baffles the surgeon, and subjects the patient to such protracted and severe suffering. If, as it is said, "the knowledge of a disease be half the cure," it is not merely a disgrace to the profession, that so many patients for years suffer under all the agonising symptoms and consequences of stricture; but a tolerably convincing proof is thereby obtained that, either in the methods of cure recommended, or in the way in which they are carried out, there is some great deficiency. For my own part, I am fully of opinion that, with the exception of the dangerous and barbarous incising and scooping modes, and the harmless dilator one, the other methods of cure recommended by different surgeons, if *rationally* carried out, and selected with care and judgment, as also with a due regard to the symptoms and specialities of each case, will always be found adequate to the end proposed, however severe the disease may be.

If then, I be asked, how it happens that, with this alleged complete knowledge of efficient means of cure, so many strictures remain not only uncured, but frequently

assume, under these asserted sufficient means of cure, a more obstinate and alarming character?—I am forced, in vindication of my own opinion, to prefer very grave charges of error, both of omission and commission, against a vast number of the members of the profession. To be compelled to this is exceedingly painful to me; and did I consult my own feelings alone, I would have gladly avoided the performance of so disagreeable a duty. But I feel, that in offering to the notice of the profession my views, and the results of my experience and observation, I owe it equally to them and myself, not to shrink from fully and explicitly bringing under their notice the principal sources from which, as it appears to me, this want of success arises.

I am the more reconciled to the discharge of this painful duty, by the fervent hope that, should these remarks be perused by the junior members of the profession, they may be the means of inducing them to avoid the mal-*practices I propose* laying bare, and to substitute for them those rational modes of treatment, which, whilst they effect a cure with comparatively little suffering to the patient, will redound to their own credit for skill and humanity.

I shall now, without further preface or apology, proceed to point out the different causes which appear to me to give rise to such lamentably *irrational* conduct on the part of some surgeons, in their treatment of patients labouring under stricture. To this end it will be necessary to carry our enquiries back to that period of the surgeon's life when he is, as it is termed, "walking the hospitals." At this time, being young, inexperienced, and enthusiastic, he is naturally attracted by the brilliancy and éclât ever attendant on the performance of what are termed the "capital operations."

His attention is also more readily directed to the numerous, and what (in the eyes of the uninformed or casual observer) will appear the more important diseases, which every where meet his view.

Thus it too often happens, that the study of the nature, and especially the treatment, of strictures of the urethra, if not altogether neglected, is but slightly attended to. This, in the young student, is (as I have already said) natural, and, in some degree, excusable; particularly, if those who are his instructors, and ought to be his guides, fail to impress on him the deep importance and necessity of his making himself, not merely conversant with the anatomy of the urethra, and theoretically with the pathology of its diseases, but, *practically*, with the performance of such operations as they require for their cure.

Now, in most of the lectures I have heard or read, as also in the more elaborate and systematic works on strictures, it appears to me that the serious difficulties and complications, against which we have so frequently to contend, are not, with sufficient perspicuity and strength, brought under the student's notice.

Most lecturers and writers on this subject, after giving very ample and correct details of the causes, symptoms, progress, and consequences of stricture, seem to me afterwards to express themselves on the treatment they recommend (that by dilatation in general) in such a manner as must have the effect of creating, in the minds of their hearers or readers, a notion that the cure of strictures is exceedingly simple and easy. This naturally begets carelessness in the pupil; who thus falls into what may properly be termed the mere routine practice of dilatation by bougies. This practice, although very well

adapted to the cure of *slight* cases, will too often, in the more grave ones, be found totally inadequate. Again they do not sufficiently warn their pupils, or readers, against using even the slightest force, when attempting to introduce their instruments. It is true that they, in general terms, give some caution on this head; but it is often marred by some preceding or subsequent directions. For example, they advise, upon an instrument not passing through the stricture, that it should be "firmly pressed against the obstruction for ten or fifteen minutes." This pressure they say, should be "*as much as could be made without lacerating the urethra, or causing any great amount of pain.*" All this sounds very well in theory; but, upon his attempting to put it into practice, the operator quickly finds, that it is exceedingly difficult to measure the amount of *firm pressure* the urethra will bear without being lacerated, or the comparative degree of pain the patient experiences from "firm pressure" against the stricture, and from laceration of the urethra.

That surgeons, having had great experience, may be able to form a correct judgment of the amount of pressure they can with safety employ, and, at the same time, keep the point of their instrument in the right direction, is perfectly possible. Nevertheless, we have the testimony of daily experience, that the greatest skill, even when conjoined with considerable experience, is not always sufficient to prevent the operator from making false passages, or, even when this error is not committed, from inflicting great pain, and causing profuse hæmorrhage. I cannot, therefore, but think, whatever they may chose to do in private, that they should take especial care not to afford, either by their writings, or by their public preformances at the hospitals, the slightest grounds to the

less experienced and skilful for being guilty of a course of treatment, so often attended with such serious consequences.

As a general principle, it would appear to me much more judicious, were these lecturers or writers to lay it down as an absolute rule, that the instrument should only be lightly pressed against the stricture, or so gently introduced into it, as to avoid all painful pressure or violence.

But I must notice here another evil, resulting from the professional man in his early career neglecting to acquire, not merely a knowledge of the nature of strictures, but that practical experience, so essentially necessary to the proper manipulation and successful introduction of the instruments employed in their cure. Thus, when called upon to make an examination of the urethra with an instrument, in order to determine the existence of a stricture, he is led by his want of this practical experience into constant errors; pronouncing stricture to exist when in reality there is none; and thus subjecting his patients to a course of operations as injurious as they are unnecessary. These mistakes very commonly occur under circumstances somewhat like the following:—

A patient, after an attack of gonorrhœa, experiences slight irritation and heat, not only when urinating, but for some minutes afterwards. He also imagines he does not expel his urine as freely, as he ought to do. This supposition, and the preceding symptoms, alarm him; and he fancies he either has stricture, or that one is forming. Under this false impression, he applies to a surgeon, belonging to this unfortunate and too numerous category, telling him that "he fears he has a stricture." The surgeon, on this declaration, suggests the propriety

of an examination with a bougie, in order to determine the question. The patient consents, at the same time, earnestly requests that "a large instrument" may not be employed, as he is sure it will not pass. To this request the surgeon readily accedes; and thus, instead of examining the urethra with a full-sized bougie (which, if there be no stricture, would pass with comparative ease), one, not half the size of its natural diameter, is employed. Should it further happen, as I have just suggested, that the surgeon, from want of practice in this branch of surgery, is not very expert in the manipulation of his instrument, the bougie will, in all probability, hitch at some one of the "natural obstructions" (as they were very properly termed by the late Sir Charles Bell), existing in the urinary canal. The passage of the instrument being thus impeded, the patient is immediately assured he has a stricture, and must submit to a course of bougies. Let me here add, by way of parenthesis, that there are three points in the urethra, at which these natural obstructions exist; and I have known them to be actually converted, by a bungling operator, into as many strictures.

The more fortunate termination of such an error, as this, is that, as the surgeon, from the repeated use of instruments, acquires tact in their introduction, he overcomes the supposed stricture. But this apparent success is, after all, achieved at the expense of much unnecessary mental and bodily suffering to the patient, arising solely from the operator having neglected his duty in early life. Indeed, for the first time, he has now acquired that knowledge and dexterity which the sufferer, at the commencement of the operations, gave him the credit of possessing. The error remaining to the end undetected, they

probably felicitate each other on the successful removal of a disease, which in truth never existed!

All cases, however, do not terminate so happily. In many instances, it has happened, that the point of the instrument has again and again been poked against one of the natural obstructions, until the urethra has been at that point lacerated. Moreover, by the pressure being prolonged in the same direction, a false passage has been made. But, even should the latter calamity not occur, the least mischief, that can result from the repeated pressure of the point of the bougie against one spot of the canal, is more or less irritation and inflammation, succeeded by an effusion and organization of lymph, thereby causing induration and stricture. Thus we see the treatment, erroneously adopted, gives rise to the very disease it was intended to cure.

The foregoing is a very brief, but accurate, outline of the ill consequences, that are almost certain to result from a want of *practical* knowledge on the part of the surgeon; and the consequent erroneous diagnosis it leads him to form. Serious as these consequences are, even in the case just stated, they by no means exceed the amount of suffering created by the use, or rather abuse, of urethral instruments, in cases where there was no doubt as to the existence of stricture.

In the course of my enquiries into the history of the origin and progress of many cases of stricture, that had come under my care, it often appeared to me, that no inconsiderable portion of the severe and prolonged sufferings, endured by patients, had arisen from one of two causes, viz.:—either from the treatment, adopted in the earlier stage of the disease, having been too mechanical;—or, at a later period, from the employment

of force to overcome the morbid contractions. With respect to the former, I shall now remark, that when the patient's attention is called to the first, or premonitory, symptoms of approaching urinary obstruction, they are rarely produced by any alteration in the structure of the urethra, but are mostly the result of some lurking irritation, or chronic inflammation, as already explained. Therefore, instead of introducing bougies every, or every other, day (as is too generally the case), the surgeon should prescribe mild aperients, emollient drinks, frequent warm fomentations of the perinæum, spare diet, a total abstinence from all wine, beer, or spirits, as also from all sexual intercourse, and content himself with the introduction of the bougie once a-week. Thus the irritation, that always, more or less, follows the introduction of instruments, would be allowed to subside before another operation; and the probability is, that the patient would be relieved, with the most perfect ease, from his incipient symptoms of stricture, and altogether escape the formation of a permanent contraction.

How foreign is the treatment, above indicated, to that generally adopted! Judging from what I daily see and hear, it would appear to me, that the idea had never entered the head of either the surgeon, or the patient, that anything more was necessary than to pass instruments. They seem also to think, that the oftener the instruments are passed, the quicker will be the cure. The disease being local, they deem the only treatment required, is the mechanical dilatation of the part. Thus bougies are introduced daily, or on alternate days; whilst, at the same time, the patient is taught to pay little or no attention to the state of his general health, his diet, the character, healthy or

otherwise, of his urine, exercise, &c., &c.; and consequently he eats, drinks, walks, indulges in sexual intercourse, and other habits of excitement, without the slightest restraint; as though these were matters of no importance whatever; whereas they are really of the very utmost moment. It must, therefore, excite no astonishment that, under such a course of treatment, the disease is aggravated rather than relieved; as the continual passing of bougies keeps up a perpetual irritation and excitement throughout the whole course of the urethra, and at the same time aggravates such as previously existed at only one particular point.

I presume it will appear strange to some of my readers, that I have thus spoken of the *daily* introduction of bougies in cases of slight stricture, or, indeed, in any cases at all. Yet, I assure them, I have known it to be repeatedly done; with what effects the following instance will show:—A gentleman came from the north of England to consult me, on what he thought an obstinate case of stricture. He informed me, that three years before our interview, he had contracted a gonorrhœa, from which he had suffered very severely, though, after some months, the more urgent symptoms had subsided. There remained, however, a slight discharge, as well as some degree of heat and irritation on his voiding urine. During this latter period, he was travelling. On his return to the town where he resided, he consulted a gentleman of considerable local eminence. This gentleman thought the symptoms denoted the existence of stricture, and suggested the propriety of an examination of the urethra. A moderate sized bougie was introduced, and, after some difficulty, passed into the bladder. In consequence of this difficulty, the

case was pronounced to be one of stricture. Bougies were now introduced daily, for a whole fortnight, when the irritation, caused by their frequent use, became so great, as to render the most active antiphlogistic measures absolutely necessary. Under the employment of these remedies, the irritation, which had resulted from the use (abuse?) of the bougie, was removed; and the patient then found himself in much the same state, as he had been in, when the treatment first commenced. Recourse was again had to instruments, but this time they were only passed on alternate days. The treatment was continued for two months, the size of the instruments being very gradually increased, and although, at the expiration of this period, a large instrument could be passed, and with more ease than at first, still it always appeared to catch and meet with some impediment in its passage. The discharge too still existed, as well as slight heat on urinating. As these symptoms continued during a period of two years, the patient again and again consulted the same surgeon, who, as he invariably pronounced them to be caused by the presence of a stricture, had uniformly recourse to the treatment described above, and with the same results.

For some months previous to my seeing the patient, all treatment had been discontinued; but the discharge still existed, and he was labouring under much mental uneasiness, in consequence of the unyielding nature of the supposed stricture. Having learnt these particulars, I proposed to examine the urethra with a full-sized silver bougie. To this the patient at first demurred, expressing his conviction that it would be impossible to pass it, for he said that, after the treatment had been discontinued any length of time, it had always been necessary, on its

resumption, to commence with smaller instruments, in consequence of the stricture having invariably contracted in the intervening time. However, upon my assurance that I would not, if I experienced the slightest difficulty, force it through the stricture, he consented to my making the attempt. To his utter astonishment, the instrument passed, readily and easily, into the bladder, without meeting with any impediment, or causing him any pain, compared with what he had always before suffered. In this result, we found strong grounds for concluding that the surgeon was altogether in error, in pronouncing the case to be one of permanent stricture, and that it was merely one of gleet, resulting from a relaxation of the urethral vessels. In this view of the case, it appeared to me, that the introduction of an instrument, covered with mercurial ointment, was the most likely means for removing the discharge. Acting upon this conviction, I re-introduced the instrument, besmeared with that preparation. When the patient called the following day, he informed me, that for some hours after he had left me, the discharge had considerably increased, but that, on awaking in the morning, he thought there was less collected in the urethra than there had been previously. I desired him to call the next day; and upon his doing so, he told me he had no doubt the discharge was less, and of a lighter colour. I repeated the application. But, as it is scarcely necessary to recount the results of each operation, it may suffice to state, that in a fortnight from his first consulting me, the discharge had entirely ceased, and with it every symptom of disease. I must further remark, that in the course of my operations, I ascertained that the supposed stricture, which had impeded the

progress of the instrument, was nothing more than one of the natural obstructions already alluded to.

This gentleman, coming to London six months after his cure, called upon me, and, for our mutual satisfaction, I again passed a full-sized bougie with the most perfect ease, thus again clearly demonstrating the non-existence of permanent stricture.

Can any words of mine more strongly illustrate the necessity and importance of a correct diagnosis than the case above narrated, or point out more strongly the great impropriety of the daily introduction of instruments? We here find a patient for years put to much physical and mental torture, for the cure of an imaginary disease! However, in spite of his sufferings, he may, perhaps, in some degree, deem himself fortunate, in ultimately escaping with a sound urethra; for such is not always the fate of those exposed to similar mistreatment.

In proof of the truth of this assertion, I would state that I was consulted by another gentleman from the country, whose primary symptoms resembled, as nearly as possible, those of the patient whose case I have just detailed. Like him, he had applied to a surgeon, who had also proposed an examination of the urethra with a bougie, and for this purpose had selected a middling sized one. On its introduction, its progress was stopped at the "bend of the urethra" (to use the patient's words). Upon this, considerable and continued pressure was employed to make it advance, until the patient experienced a sensation of tearing. The instrument was then partially withdrawn, again pressed onwards, and, after appearing to "jump" over some obstruction, it entered the bladder without meeting any further impediment. Upon its with-

drawal, a profuse hæmorrhage ensued; and I need scarcely add that, under these circumstances, the case was immediately pronounced to be clearly one of stricture. The first time the patient had occasion to expel his urine, after the operation, he experienced the greatest possible pain, on its passing over the part where the progress of the instrument had been stopped, accompanied by a lancinating pain in the perinæum. The penis likewise become swollen; and the water was tinged with blood. *From this period commenced undoubted symptoms of stricture.* The inflammation, which ensued upon this operation, was considerable; and as soon as it had subsided, a bougie was again introduced; but this time a *smaller one* was used. However, some difficulty was again experienced in passing it through the "bend," and, upon its withdrawal, bleeding occurred, but not in so large a quantity as at the first operation. For some time longer these operations were repeated at intervals, with nearly similar results, till, at length, it was determined to "wait a little." After this time, the stream of urine rapidly decreased in size; and the patient became subject to violent spasms, accompanied by partial retention of urine; whilst the urethra was at all times extremely irritable. There was constant scalding on urinating; as also, on pressure, uneasiness and tenderness in the perinæum. In short, he was reduced to a truly miserable condition, hardly knowing which most to fear, the consequences of the operations, or the progress of the disease. At length, with the consent of his surgeon, he purchased some small wax bougies, in the view of trying to pass them himself. Upon his making the attempt, he was so fortunate as to succeed in passing a very small one, without producing any irritation. He now contented himself

with occasionally passing an instrument, to keep (as he expressed himself) the stricture open. But, at last, it became impervious to a bougie, even of the smallest kind. Then the only means of relief he had, when spasms occurred, was to pass a bougie down to the stricture, keeping it pressed against it for a few minutes, by which means, on withdrawing it, he was enabled to void his urine.

Such was the wretched state of the patient, when he applied to me; and I think there are but few persons, who have had even the slightest experience in these matters, who will not agree with me in the opinion that, in all probability, this patient's case was not originally one of stricture. At all events, none, I imagine, will deny that, whether it was originally a stricture or not, the disease, whatever it was, had been cruelly aggravated by bad treatment. I might adduce many, very many, other instances, in further proof of the frequency of these errors; some, where false passages had been formed; others, where the lunar caustic had been actually applied to the natural obstructions, under the impression that these were morbid contractions! I shall, however, content myself with having cited these two cases, they being, I imagine, amply sufficient for the purpose of illustrating such unpardonable errors, and their frightful consequences.

If I appear to dwell too much upon these points, I am content to run the risk of being thought tedious, rather than fail in my earnest desire to impress, as emphatically as I can, on the profession generally, the immediate, as well as remote, evils, ever attendant on the employment of any kind of force in passing instruments; as also the great importance of their acquiring the most minute practical knowledge of this interesting branch of surgery; and,

finally, of their reflecting deeply on the immediate, as well as remote evils, ever attendant on the employment of any kind of force in passing instruments. I shall thus prepare them (if I may be allowed to say so), for feeling a proper horror and detestation of this most rude, irrational, and inhuman mode of treatment. The reader may be assured that, whilst there are few cases, very few indeed, however severe and of long standing, that will not yield ultimately to the combined effects of patience, care, and skill; there is not one, that will not be immediately and seriously aggravated by violence;—it matters not what amount of skill the surgeon possesses who employs it. It may be regarded as an axiom in the practice of this branch of surgery, that the moment recourse is had to force to overcome the obstruction, the most ignorant and the most skilful are pretty nearly on a perfect level, as far as the successful issue of the case is involved. Should even the knowledge and skill of the operator enable him to pass the instrument, through the obstruction, into the bladder, along the right course; yet the laceration, the consequent pain, the profuse hæmorrhage, that must result from the violent forcing of the contracted parts of the urethra, cause the patient to pay much too dearly for the success of the operation. In many instances, the severe injury, inflicted on the urethra, gives rise to the most acute inflammation and irritation, which render it imperative to discontinue all operations for days, and sometimes weeks. In the meantime coagulable lymph is deposited from, and round, the inflamed and lacerated parts, and quickly becomes organized; thus rapidly forming an obstruction, more dense than the original stricture. Therefore the patient not merely derives no benefit from these clumsy proceedings; on the contrary, he finds, after having submitted in the

first instance to great pain, and, for some time afterwards, to an aggravation of all his distressing symptoms, that he is not merely no better for the treatment and sufferings he has undergone, but in every respect much worse.

It would, probably, make a stronger impression on the reader's mind, than any observations of mine could effect, were I to relate here an instance of the evil consequences of the malpractice I wish to warn them against. I beg them, at the same time, not to imagine, because I content myself in adducing only one, that it is a solitary instance; for, unfortunately, these cases are almost innumerable.

Capt. ——, on his return with his regiment from India, early in the spring of 1847, consulted Mr. ——, one of the surgeons of the ——— Hospital, in London, in consequence of his being afflicted with a stricture of the urethra. He had laboured under this complaint for many years, and had experienced great inconvenience from it during his residence in India, especially whilst discharging his military duties in the late Sikh war. Mr. ——, having made two or three unsuccessful attempts, on as many occasions, to introduce a rather small silver catheter, desired the patient to lie down on a sofa, and then, by the employment of great force, he succeeded in introducing the instrument. The operation caused intense pain to the patient, as well as produced a considerable bleeding; and not only did no improvement in the power of voiding the urine result, but, on the contrary, the act of micturition was attended with increased difficulty and pain. After an interval of three days, the Captain called on Mr. ——, who, as before, ordered him to lie on the sofa, and again, by the employment of considerable force, passed an instrument. Though the injurious effects of this treatment were at once apparent in

the increased soreness of the urethra at the seat of the stricture (indeed, the morbid sensibility was so excessive, that the moment the point of the instrument reached the part, the patient experienced most acute pain, and violent spasms occurred); yet this most irrational mode of treatment was persevered in, until the patient was obliged to return to his regiment. Every one of these operations occasioned a more or less profuse hæmorrhage. As it was the Captain's intention to continue the treatment, by placing himself under the care of some medical gentleman resident in the town where his regiment was stationed, Mr. M—— furnished him with a letter to that gentleman, stating that the patient was labouring under a severe stricture, accompanied by great morbid sensibility of the urethra, and would therefore require great gentleness and delicacy of treatment. A strange contradiction to, as well as a severe self-condemnation of, his own line of treatment!

Whether the surgeon to whom this communication was addressed, thought he ought to place more confidence in the acts, than the recommendation of his correspondent, I know not; but it is certain that he seems to have treated the latter with the utmost contempt, whilst he implicitly followed the former. Thus, on one occasion, after an instrument had been made "to slip in somewhere" (the operator's own expression), the patient experienced the greatest pain in the perinæum and rectum. The pain and irritation in the urethra and rectum, which this operation occasioned, were so severe, that, by the advice of the assistant-surgeon of his regiment, he determined on suspending all treatment for a time. After the lapse of three weeks, the sufferings that had resulted from the operations subsided; but there was no improvement in his power of

urinating. He was therefore desirous, and at the same time fearful, to resume the treatment. Whilst in this state of oscillation between his desires and his fears, he was recommended by a surgeon, a mutual friend of his and mine, to consult me.

Upon examining his urethra, I ascertained the existence both of a stricture and a false passage: the latter passing out of the urethra immediately before, and below the former. Though I carefully abstained from using force, yet no sooner did the instrument press on the parts, than the patient cried out with pain; and a slight bleeding followed the withdrawal of the instrument.

Under these circumstances, I informed the patient that, in my opinion, the only chance he had of being cured, was to make up his mind to lay himself up, and for that purpose either to come and stay with me, or take lodgings close to me, in order that I might be able to devote due attention to his case. As he was only on leave of absence for a few days from his regiment, he could not at once follow my advice; but he left with the promise that he would do as I directed, as soon as he could obtain the necessary leave of absence.

Having, in about three weeks from this time, made the arrangements I had suggested, he came up to town, and took up his abode with our mutual friend, Mr. ——, surgeon (who resided within ten minutes walk of my house), for the purpose of submitting to such treatment as I might deem necessary.

Perfectly assured of the uselessness of the plan usually adopted—*that of making hasty attempts during a visit of a few minutes*, at the patient's lodgings, or upon his calling at my own residence—I determined on the adoption of the following plan of treatment:—I requested our

mutual friend, Mr. ——, at whose house, as I have already stated, the patient was staying, to administer to him, each day of operation (about half an hour before the time fixed for my visits), an enema, containing forty drops of Squire's Solution of Bi-meconate of Morphine. About ten minutes after the administration of the enema, the patient was to go into a warm hip-bath, and remain there till my arrival. Upon finding these preparatory arrangements carried out, I then carefully passed down to the stricture a catgut bougie; and, as soon as I felt it had entered the stricture, and was grasped therein, I at once desisted from all attempts to force it onwards, and contented myself with tying it securely in the position I had placed it. I then directed the patient either to go to bed, or to lie down on a sofa. Mr. —— now kindly undertook to watch the patient, and to withdraw the instrument, if there was any pain occasioned by its retention, or if the patient required to urinate. In this line of treatment I steadily persevered for upwards of three weeks, occasionally applying the potassa fusa to the stricture, and substituting, now and then, for the catgut bougie, a flexible catheter, in the hope that it might slip through the obstruction into the bladder, in which case I intended to retain it there—taking the greatest care, at the same time, to use only the gentlest pressure. Yet, notwithstanding my utmost care, nearly every operation was followed by a slight bleeding, as is almost invariably the case after the subjection of the urethra to violence, such as this patient had been exposed to.

After the lapse of the three weeks, a considerable improvement in the patient's power of urinating having taken place, I thought I might venture on making a more determined attempt, than any I had previously deemed it

prudent to make, to pass an instrument. I accordingly fixed a No. 4 flexible gum catheter on a firm stilett, with a handle to it, and, having carefully introduced it into the stricture, I left it there for some time. When finding that it was no longer grasped with the same force, as on its first introduction, I again gently pressed the instrument onwards, and had the satisfaction of feeling it slightly advance. After a pause of a few minutes, I again carefully and gently pressed the instrument forward; and I then felt it pass completely through the stricture; but, after advancing about half an inch, its further progress was altogether stopped. After another pause of some minutes, I renewed my attempt to pass it into the bladder, but without success. I now determined on withdrawing the firm stilett, and at the same time to push the flexible catheter forwards. By this manœuvre, a surgeon is often enabled to pass an instrument, after having failed in his previous attempts; and such was its result in the present instance. The catheter, thus introduced, was fixed in, and retained for twenty-four hours, and then replaced by one of a larger size, which was, in like manner, retained for the same period.

From this time, I was able, by the occasional retention of catheters, for periods varying from twenty-four to forty-eight hours, and by the occasional application, for six weeks, of the potassa fusa, to pass a full-size metallic bougie. However, there still remained a great degree of urethral soreness in the region of the stricture, as also the previous disposition to bleeding. It is true, the bleeding did not occur to any great extent; but still there was, after every operation, a tinge of blood mixed with the mucus of the urethra; whilst sometimes a few drops of blood followed the withdrawal of the instruments.

After two months more, the patient's state was so greatly improved, that he married. As he went abroad after his marriage, I have not since heard how he has fared; but I much fear that his relief will not be of a permanent character, and that the injury inflicted on the urethra, by the force that was used, may yet become a source of great annoyance, if not of positive suffering and danger.

Entertaining such sentiments as I have, I fear too feebly, expressed, I cannot too often, or too strongly, impress on lecturers and writers, the paramount duty of discountenancing the employment of force in the treatment of morbid contractions of the urethra. But they should not confine themselves to mere precept; they should, practically, enforce it by abstaining from those deeds of violence and blood, they too often enact themselves at our hospitals. However successfully they may attempt to weaken the effects of such harrowing proceedings on the minds of spectators (to say nothing of the unfortunate patients), by coolly saying, that the bleeding will keep down inflammation; yet, upon being recounted out of the precincts of the hospital, they reflect little credit on their character, either for skill or humanity. People, in general, are apt to think, that if bleeding were necessary to keep down the inflammation, it would be more in accordance with common sense, not to say science, to have recourse to the lancet, or leeches, for that purpose. The mode, just suggested, would certainly be, as far as regards the patient, a far less painful one of obtaining the end desired; whilst the other has the further objection, that it furnishes an example which others may be too ready to follow at the cost of their patients, and (what is really a very

subordinate consideration), at the sacrifice of their own reputation.

Having made these observations on the important duties and serious responsibility of both teachers and pupils, as also on the evils resulting from the diseases of the urethra, and on their practical treatment not being made the subject of due study—I shall notice the mischiefs, not less serious, inflicted on patients labouring under strictures, both by their own inconsiderateness, and the irrational conduct of surgeons.

With respect to patients, it often happens that, although labouring under most severe strictures (so bad, indeed, as to allow them only to void their urine in an exceedingly fine stream, and, through which no instrument will pass), yet they do not materially suffer in their general health. At all events, they do not suffer to such an extent as to confine them to the house, or altogether prevent the pursuit of their usual avocations. At the same time, most patients of this class are exceedingly reluctant to let even their most intimate acquaintances know that they are suffering from stricture. Indeed, this desire to conceal their state is often carried so far, as to induce them to keep it a secret from their own families. From this cause, it frequently occurs that consequences arise, as unpleasant to the surgeon, as they are disastrous to the patient. For instance, a patient labours under stricture so severe, and of so long standing, as to be impervious to instruments. In this situation, and under the influence of the feelings I have just mentioned, he resolves to seek the aid of some surgeon, whom he only knows from his name being connected with some public hospital, or some other equally accidental coincidence. To this end, he waits

upon the surgeon at his private residence, at the usual hours of reception, where, according to common usage, he finds collected, some dozen or more patients, who are hurried in and out in their respective turns. At length his own turn arrives; his case is briefly stated; instantaneously his back is fixed against the wall, and the surgeon at once proceeds to explore his urethra with a bougie. The existence of an impervious stricture is readily ascertained; and after some attempts, occupying a few minutes, have been made in vain to pass the instrument beyond the stricture, the patient is informed that he must submit to a regular course of operations. Thereupon he is dismissed, with injunctions to repeat his visit in two or three days. He accordingly keeps the appointment; again an instrument is passed down to the stricture; *firm pressure* is made, whereupon the instrument partially enters the stricture, in which it is felt to be firmly fixed and grasped.

The surgeon, having so far accomplished his object, should, in my opinion, desist, for a time, from any further attempt to advance the instrument. He should content himself, with either gently holding it in the position in which he had placed it, or with bidding the patient to do so, for some half hour, or even more, should no pain be occasioned by its retention. The instrument should then be gently withdrawn; and, if the treatment resolved upon be that of simple dilatation, the patient should be told to call again in a few days. This would be the *rational*, though, I much fear, it is far from being the *usual* mode of procedure.

But to return to where I left off: the instrument, having been passed down to the stricture, and having partially entered it, is there spasmodically grasped.

These circumstances, instead of being regarded as conclusive reasons for discontinuing, for the present, all further attempts, are generally held as additional inducements for continuing them, and (fatal error!) with superadded force. Such attempts occupy but a few minutes, and, no time being allowed for the spasms to exhaust themselves, they are, consequently, in most cases, both unsuccessful and exceedingly painful. As other patients are waiting, the surgeon can devote no further time to this case; and the patient is therefore dismissed, with an injunction to renew his visit in a few days. Thus weeks frequently elapse, during which these brief attempts to overcome the stricture are renewed, at intervals of two or three days, but without success; and should the surgeon have abstained from resorting to force, no ill consequences will probably happen to the patient, beyond the loss of his time.

The following case of a patient, who was under my care a few months since, will fully illustrate the result of this method of treatment. He attended for six weeks, at regular intervals of two or three days, at the house of a very eminent surgeon, residing in the metropolis. At each of these visits, which never exceeded five, or at the most ten, minutes, gentle attempts were made to overcome the impediments, but without success. At length the patient, desponding of a successful issue to the treatment, discontinued his visits altogether. The surgeon, however, acted the part of a conscientious and humane man, in not having had, under these circumstances, recourse to force to overcome the obstructions; and it is only to be regretted that he did not devote a longer period to his attempts, as they would, in all probability, have been crowned with the success which

subsequently attended my own treatment of prolonged dilatation of the stricture, with catgut bougies, and the occasional application of the potassæ fusa.

Whilst these sheets were in the press, I received the following letter from this gentleman, who, I should have stated, is a Captain in a cavalry regiment:—

"———, Ireland, Oct. 13, 1847.

"My dear Courtenay,

"Knowing the interest you take in your old patients, and as some time has elapsed since I last wrote to you, a short account of my progress may not be uninteresting. I have continued well, and quite free from any annoyance, although I have ridden on horseback almost daily; have drank my usual quantity of wine; and, in short, led precisely the same sort of life that I ever did, without any inconvenience to my power of urinating, * * * *

"Believe me, very truly yours,

"C. L."

But this careful avoidance of force is, I fear, a rare exception to the general method. Thus, after several visits have been made to the surgeon, and, on his part, as many fruitless attempts to overcome the obstruction, annoyed at his want of success, and, at the same time, knowing that others are waiting to see him, he determines, when the instrument is again fixed in the grasp of the stricture, to carry his firm pressure a *little farther*, and thus endeavour, by a species of *coup de main*, to overcome the obstruction. The moment this determination is acted upon, the patient experiences the most excruciating pain;—he feels the point of the instrument pressing against the stricture; and simultaneously increased spasmodic grasping ensues. At the same instant (to use his own expression), "something appeared to give way,

and the instrument, with a jump, passed onward into the bladder." Should it be a catheter that is used, as the water flows through it, small clots of blood are observed to escape, and the urine itself is more or less tinged with it. As soon as the bladder is emptied, the instrument is withdrawn, and, as it passes over the strictured portion of the canal, increased pain is experienced, accompanied by a "tearing sensation;" whilst, after it has been completely withdrawn, more or less bleeding ensues. The patient is now congratulated on the successful introduction of the instrument, and is told, the bleeding resulting from the operation is not merely of no consequence, but advantageous. This assurance, conjoined with the success which has attended the operation, in a great measure reconciles him to the sufferings he has undergone. He is then dismissed, with the usual directions as to his next visit. On his way home, he suffers more or less pain, and is conscious that a discharge of some kind is taking place from the urethra. Upon his arrival, he immediately proceeds to examine his linen, when he experiences no little alarm at finding it nearly covered with blood, and that a discharge of that fluid from the urethra still continues. But this is not all; for when he next has occasion to urinate, the moment the urine passes over the strictured portion of the urethra to which force has been employed, he experiences so acute and agonizing a pain, as no language can adequately describe. The pain, to use his own words, "thrills through him," and instantaneously a shivering pervades his whole frame; his teeth chatter; his limbs tremble, and severe rigors ensue. Thus he offers the most complete picture of human misery! In some instances, however, the attack of rigors is less sudden. Should such be the

case, the patient, instead of being at once attacked with a fit of shivering, after he has ceased to urinate, merely experiences what he will describe, as a "cold, creeping sensation." Gradually this feeling however increases, and is accompanied by great depression of vital power and nervous energy, succeeded by violent fits of shivering. But, even when no attacks of rigors supervene, still the patient invariably suffers increased pain and difficulty in urinating; and, in some instances, a total and alarming retention of urine occurs. However, under any circumstances, the effect of the violence used is mostly to cause a total cessation of all further attempts for some days, at least, and frequently to render necessary, in the interval, the application of leeches, and the employment of warm baths. Upon the operations being renewed, the surgeon, on attempting to pass an instrument through the stricture, finds the impediment as firm as ever; and he has now to contend against such a degree of increased morbid sensibility, at the strictured portion of the urethra, as to inflict, upon the slightest pressure, intolerable pain on the patient; and, lastly, when the instrument is withdrawn, although the greatest possible gentleness has been used, a slight bleeding takes place. Again and again are similar attempts made, with the like results; till, at last, the surgeon, growing once more impatient, and regardless of the previous dire results of his rashness, again forcibly thrusts his instrument through the stricture, producing anew evils similar to those already recounted; or he becomes so alarmed and embarrassed, as not to have the courage to make even that amount of pressure which, under different circumstances, would not merely be justifiable, but proper. The unavoidable consequence is, that both the surgeon and his patient are so disappointed

Let us, however, take the most favourable view of a case of this kind, and suppose the excitement and irritation, resulting from the force employed, to have subsided, and that, at the next operation, an instrument has been introduced into the bladder; yet, notwithstanding this success, it almost invariably occurs, that the stricture, from this time, presents indications of increased morbid sensibility to the pressure of the instrument, so as to render the necessary operations exceedingly painful. At the same time, each successive operation causes more or less bleeding; and these symptoms continue, notwithstanding that the strictured portion of the urethra is at last so completely dilated, as to admit of the introduction of a full-sized instrument. Thus, although the full-sized instrument passes, there yet remains increased sensibility of the part, together with an aptness to bleed upon the slightest pressure being made. No sooner, too, is the employment of instruments discontinued, than the contraction rapidly recurs. The reason of this disposition in the parts to re-contract may be accounted for, as already explained, by the aptness of strictures, arising from mechanical injury, to relapse, in consequence of the cicatrix formed by the healing of the ruptured urethra. The mechanical force of the bougie may equally, with that arising from external violence, rupture the membranes forming the urinary canal, thus occasioning cicatrization, and the probable reformation of stricture.

In this supposed instance, we have seen a certain amount of success, (brief, indeed!) result from the employment of force. But, in the far greater number of

cases, not only is this questionable success wanting, but the patient's life is truly placed in imminent danger. The case of Flack, which will be stated hereafter, with all its details, will serve as an illustration of, and, I hope, as a warning on, this subject. Here, I shall only briefly observe, that, at a public institution, where he applied for relief, a student employed great force in his attempts to pass an instrument; but finding these fruitless, he desisted, declaring the spasms were too strong to allow him to succeed. When the bougie was withdrawn, jets of blood spurted from the urethra. It was, with the greatest difficulty the wretched patient could crawl home; and, when he next had occasion to urinate, he was only able to pass an exceedingly small quantity of water, which occasioned him frightful pain. This partial retention, however, was relieved in a few hours by the application of warm fomentations. Three or four days afterwards, he discovered that a tumour had formed in the perinæum; and, as it continued to increase, he applied to me a few days after its discovery. Upon examination, I found a large swelling in the perinæum, and, upon introducing the finger up the rectum, considerable tumefaction of the posterior parts of the urethra, and the prostate gland enlarged. His tongue was furred; his pulse quick; and he exhibited every symptom of great constitutional disturbance. Two days afterwards, the tumour, notwithstanding the application of leeches, having considerably enlarged, I considered it necessary to make into it a deep and free incision. However, no pus or urine escaped through the opening. At my visit to him the next morning, I found the whole of the scrotum enormously enlarged and distended. I made free incisions on each side its rapha, from which urine

stopped up by a collection of mucus, a small quantity of urine had passed through the urethra, and had also escaped through the fistulous openings. I therefore withdrew the catheter, and replaced it by a larger one. The slough, already noticed, was separating, and, in other respects, the patient was going on well. He continued improving for two days, by which time the slough was completely detached, leaving the left testicle entirely exposed. During the night the catheter became completely stopped up, and he was obliged to void the urine by the urethra, which he did freely, a portion escaping through the fistulous openings in the perinæum and scrotum, as well as by the opening in the groin. For the next eight weeks he steadily improved, and the fistulous openings had completely healed. He was now able to go about, and attend to his business. About three weeks from this time he was suddenly attacked by rigors; a swelling again appeared in the groin, which was exceedingly painful. Immediately upon my seeing him, I made an incision into it, and urine escaped through the opening. After this slight relapse, he continued to improve, until he got so well, that my attendance was no longer required.

Whilst the first of the two preceding instances offers a clear illustration of the evils inseparable from the employment of force, even when successful, the last gives a fearful picture of the misery and danger resulting from the laceration of the urethra, and from the failure of forcible attempts to overcome an obstruction.

Another instance, I shall now adduce of its evil consequences is when, instead of the urethra being torn at the strictured portion, as in the last mentioned case, the instrument is, by one or more forcible attempts at the

same point, made to pass through, and out, of the urethra, into the space between it and the rectum. This had occurred to an officer of high rank and noble family, who subsequently became a patient of mine. In this case, repeated forcible attempts had been made to overcome the stricture; and, at last, from a common metallic instrument passing its whole length, it was imagined the stricture was overcome, and that it had entered the bladder. However, on introducing a silver catheter, of the ordinary length, no urine escaped, thus clearly indicating that the instrument had taken a wrong direction. Upon the patient expressing some alarm at no urine passing through the catheter, he was assured by the surgeon, that this did not arise from a false passage having been made, but from the circumstance of his bladder being "higher up" than in most men, and, consequently, requiring a longer instrument. In consequence of this sage opinion, a longer instrument was obtained, and introduced its whole length, without, however, any urine flowing through it. The patient then consulted Mr. ——, a gentleman connected with one of our metropolitan hospitals, who, on examining him, at once pronounced that the course, the instrument had been made to take, was wrong, and, consequently, that a false passage existed.

But if the patient escape the more serious evils detailed in the foregoing case, and his sufferings be confined to the slighter ones, such as hæmorrhage, partial retention, and attacks of rigors, yet the infliction of these comparatively minor injuries often, ultimately, occasions consequences, as painful and dangerous as the above related. For it often happens, that the patient is so much alarmed at the sufferings he endures from these *irrational*

modes of treatment, and, at the same time, so fearful of submitting to any other, that, although he is fully conscious the disease is daily gaining ground, he cannot make up his mind to apply for further surgical assistance. Thus he allows the disease to advance unchecked, till his existence becomes one unmitigated and unceasing course of suffering. In a word, it is only when an attack of total retention, or the formation of abscesses in the perinæum, or the development of some other dangerous concomitant of stricture takes place, that he is, as it were, driven to seek again surgical aid.

What a deplorable picture do the preceding cases present of the effects of ignorance on the one hand, and of the inutility of mere manual skill, when unaccompanied with calmness, and tempered by discretion, on the other! I hope there is not a junior member of the profession, who would not be overwhelmed with shame, to see his name blazoned forth as the attendant surgeon in any of these cases. What, then, are we to think or say of those members of the profession, who, notwithstanding their eminent position, their undoubted general surgical acquirements and operative skill, afford me the means of illustrating, by their acts, the malpractices I denounce? If these acts would disgrace the comparatively inexperienced and unskilful, what terms shall we find, sufficiently strong, to express the surprise and indignation we feel at the conduct of men, who cannot plead, in exculpation, either inexperience, or want of skill?

If the accounts I hear be true, the employment of force, in passing instruments in cases of stricture, is all but universal; not so much, too, on the part of general practitioners, as that of "pure surgeons;" and I am compelled to say, that it is not only a perfect disgrace to the parties them-

selves, but is almost a reproach to the profession. The extent to which this evil is carried is, indeed, almost incredible; and when it is called to mind, that the main causes of stricture are inflammation and irritation, and that the inevitable results of such proceedings are to excite both the one and the other, it then appears to me little short of downright infatuation, or wilful cruelty, for any man, possessing the slightest knowledge of his profession, to pursue a line of conduct, at once as unjustifiable as it is dangerous.

If I am justified in thus designating the proceedings of surgeons in those cases, where they have to contend against the difficulties, always, more or less, inseparable from the treatment of strictures, impervious to instruments, by the method of dilatation, surely there is no term in the English language sufficiently strong to express the culpability of those who, in cases where strictures are pervious to instruments, still have recourse to force in order to pass them. They are the more culpable, as in the majority of such cases, the careful and gradual dilatation of the contractions is all that is required for the patient's cure, or, at all events, relief. What a reckless disregard of their patients' welfare, as of their own character, do they therefore evince, in having recourse to force, rather than patiently follow that treatment, which reason and experience alike point out as *rational* and efficacious!

Having adduced, by way of illustration and confirmation of my remarks, some instances of the evils resulting from the employment of force in cases of stricture, impervious to instruments, I shall now state one or two, in order to illustrate and confirm my last observations.

Major H., on his return from India, labouring under stricture of the urethra, consulted Mr. ——, surgeon to

——— hospital, in London. The treatment this gentleman adopted was that of simple dilatation, under which the Major was gradually improving. Happening one day to arrive later than usual at Mr. ———'s house, he found him with his hat on, and on the point of going out. On seeing him, Mr. ——— immediately exclaimed, "Oh! you are just in time; come, fall in;" and hurriedly taking an instrument, passed it rapidly down to the stricture, where its further progress was stopped. Regardless of the impediment, he forced the instrument on, and passed it into the bladder. The patient experienced more pain from this operation, than from any previous one. The passage of the instrument through the impediment was accompanied by a sensation of tearing; and, immediately after its withdrawal, a profuse hæmorrhage occurred. The Major could not refrain from expressing considerable alarm at these results; but Mr. ——— assured him there was no occasion for uneasiness, and that, as to the bleeding, it would "do good;" coolly adding, "come, march; I am going out." Being thus summarily dismissed, he attempted to walk home; but the agony he endured was so great, that, to use his own expression, he "could only manage to crawl along." As this case is fully detailed in a subsequent place, I shall here only add, that the effects of this operation were, to cause not only a profuse hæmorrhage, intense pain, and a partial retention, when he next had occasion to urinate, but so severe an attack of rigors, and such constitutional disturbance, as to confine him to the house for a fortnight. At the expiration of this time, when he attempted to resume the treatment, the nervous debility under which he laboured was so great, that the mere sight of the instrument produced so painful an im-

pression, that he could not make up his mind to submit again to its introduction. In fact, he was still so ill, that Mr. ——, at his suggestion, consented to abandon, for the present, all treatment; and he even recommended the patient to go into the country, with a view to recruit his general health.

I shall only relate here one more instance on this subject. A gentleman, who was under my care, about the year 1843, for the cure of an obstinate gleet, which was removed by the treatment I adopted, had, after he had left me, a relapse. He, in consequence, determined to try the effect of the "cold water cure." The only result of this treatment was to add to the existing disease, another in the form of a severe pain in the chest, accompanied by a cough. He now determined to try the homœopathic system, and returned to London to place himself under the care of Mr. ——. After being under this gentleman's care some weeks, and no benefit being derived from the treatment, Mr. —— suggested that probably the discharge arose solely from the existence of stricture of the urethra, and expressed a wish for him to call upon a friend of his, Mr. ——, surgeon to ——— hospital, in order that the existence or non-existence of stricture might be ascertained. The patient agreeing, he was furnished by the homœopathist with a letter of introduction to the surgeon, who, on examining the patient's urethra with a middling sized instrument, said: "Yes, you have a slight stricture; but the introduction of a bougie a few times will put you to rights." Accordingly, after an interval of two or three days, he again waited upon Mr. ——, who readily passed a larger instrument than at first. At a subsequent visit, another instrument

was passed with equal facility; and on the next, Mr. —— introduced a much larger than any he had hitherto used. On its arriving at the bulbous and membranous portions of the urethra, some difficulty to its further progress was experienced. This, however, was overcome, and the instrument passed on to the bladder. When it was withdrawn, the patient observed a discharge of blood from the urethra, and felt considerable uneasiness in the parts. When he returned to his lodgings, and had occasion to urinate, he found that the discharge of blood still continued, and that his urine was highly tinged with it; whilst the scalding pain he experienced, as the water passed through the urethra, was agonizing. During the whole of the day, small quantities of blood continued to escape; and, whenever he had occasion to urinate, the pain and difficulty progressively increased. In the evening, feeling exceedingly ill, he retired at an early hour, and shortly fell asleep. About midnight, he was awoke by an urgent desire to make water; and, on his attempting to do so, only a few drops escaped, which, in passing, caused him intolerable pain. The desire to urinate was, however, so intense, as to compel him to make most violent straining attempts to expel the urine, the only effect of which was, to cause an alarmingly profuse discharge of blood whenever he strained. In this miserable condition he remained nearly an hour. The sole remedy he tried for his relief was dashing the parts with cold water, but without obtaining it. At length, seriously alarmed at the continuance of the retention, and, perhaps, more so at the profuse hæmorrhage going on (for, by this time, not only were his towels saturated with blood, but the chamber-utensil and wash-hand basin were also besmeared, as well as the floor of his room), he determined, not liking to call

up the persons in the house, upon coming to me. As he was lodging in Vere-street, Cavendish-square, he was quickly in Oxford-street, where, getting into a cab, he directed the driver to my former residence, in Great Marlborough-street. He hoped that I should be able to receive him in my house as an in-patient, as I had done on a former occasion. It, however, so happened, I was at that time changing my residence, and had taken temporary lodgings in Argyle-place, Regent-street, and thither he immediately drove. Disturbed by the loud knocking, I opened my window, and suspected at once that something serious had happened to my old patient, from the earnest tone in which he entreated me to come down. I need scarcely say I lost no time in admitting him, when I soon had from him an outline of the particulars I have just related. He then begged me to give him a utensil, in order that he might attempt to empty his bladder. On his trying to do so, no urine, but a considerable quantity of blood, was discharged. Under these circumstances, I thought it advisable to endeavour to draw off the urine, and thereby so far relieve the patient, as to prevent the continued straining attempts he was making, and which had the effect of aggravating the hæmorrhage without relieving the bladder. At the same time, I was fully aware that I incurred some risk in thus attempting to introduce any instrument, so soon after one had been passed with such untoward results. However, of the two evils, I thought it best to select what I deemed the lesser one. Accordingly, I determined upon trying to relieve the retention by the introduction of an instrument, and, for this purpose, I chose a flexible catheter, about No. 6 in size. I was able to pass it into the bladder; it, however, almost immediately became so stopped up with

coagulated blood, that after a very small quantity of urine had passed through, no more could escape. I tried in vain, by the introduction of the stilett, to clear the catheter, so as to admit of the urine passing. I was, therefore, obliged to withdraw the instrument, and, after cleaning it, re-introduce it. Three times, in consequence of the catheter being each time stopped up with blood, I was obliged to do this before I could empty the bladder, and completely relieve the patient. I then suggested to him the propriety of his returning home, and offered to accompany him. He, however, expressed so much disappointment at the idea of my not being (as he had hoped) able to receive him in my house, at the same time so much alarm at not being under my immediate charge, and such an earnest wish that I should make arrangements for him to remain in my lodgings, that, under these urgent circumstances, I saw no other way left but to give him up my own bed, which I accordingly did. In about two hours from this time, he again experienced an urgent desire to void his urine, and, on attempting to do so, he was again unable to void a drop. Having in the meantime ordered a fire in the adjoining sitting-room, and procured hot water in anticipation of its being required, I had now recourse to the application of hot fomentations to the parts, with a view to relieve the spasm and retention. I did not, on this occasion, as I had done on the first, have recourse to the instrument. So much blood had attended the introduction and withdrawal of the catheters, that I was loath to run the risk of further increasing the hæmorrhage, especially as from the relief so recently afforded to the bladder, I had no reason to fear that there was any great accumulation of urine in it. Under the soothing influence of the warm fomentations, conjoined

with that of an opiate, the violent spasms and urgent desire to urinate considerably decreased, although not a drop could be evacuated. In this manner passed the hours until morning, the patient every now and then making painful and fruitless attempts to urinate. In the meantime, I administered a strong opiate enema, and, at intervals, applied warm fomentations. About nine o'clock, the desire to expel the urine increased to a frightful degree, and, as the opiates had failed to produce the desired effect, I determined upon administering a copious enema of warm water and castor oil. The effect of this was, that the patient was enabled to pass a considerable quantity of urine. The pain he experienced on the urine first passing was so intense, that he nearly fainted; and I was obliged to support him on the seat of the water-closet to prevent his falling off. From this time he was able to void his urine, although with difficulty; whilst the pain he suffered was extreme. In the evening, he was so much better, that we had time to think. Recollecting the strange and abrupt way in which he had left his lodgings the night before, and the alarm it must have created in the minds of the owners, on finding them not only vacant, but the basin, chamber-pot, towels, and sheets of his bed besmeared with blood, we immediately resolved to send and apprize the landlord. He, in consequence, quickly called upon me. The poor man was so agitated, although now assured of Mr. ——'s safety, that I could not but reproach myself for not having sent to him sooner. He informed me that they had been greatly alarmed, on going into Mr. ——'s room, to find it in the state it was; that they concluded he had burst a blood vessel, and, that, not liking to disturb them, had gone out to seek some surgeon's aid. They had carried their fears farther, by

supposing that he had either fainted, or dropped down dead in the streets, and, in the former case, had been carried to some hospital. Under this apprehension, he had been engaged the whole day in going about to the different hospitals. His inquiries proving unsuccessful, he had already sent to a friend of Mr. ——'s, to apprize him of his sudden and alarming disappearance, and was about to seek the advice of some magistrate, when my messenger fortunately arrived.

Mr. —— having continued gradually to improve, returned to his lodgings, after having remained with me ten days. When all the ill consequences had apparently subsided, he was very anxious that I should introduce an instrument, to ascertain the state of the urethra. I, however, recommended him not to have an instrument passed, but rather run the risk of stricture from the injury inflicted on the urethra, than incur the danger of another hæmorrhage. He therefore left for the country, with the understanding that should (as was most probable) any symptoms of stricture occur, he would at once come to me.

About three months afterwards, he returned to London, and informed me that, having lately experienced some little difficulty in urinating, accompanied by a considerable disposition to spasm, he was therefore determined to lose no time in consulting me. Upon examination of the urethra, I found a stricture just at the part where the injury had been inflicted. The stricture, however, was not so contracted but that I could pass a No. 5 instrument. There was a considerable degree of spasmodic irritability—so much so, that when the instrument was allowed to remain in some time, it was firmly grasped. I now recommended the patient to submit to a proper

course of treatment, and he accordingly took up his residence with me. In six weeks, I could pass, with the greatest ease, a full sized metallic instrument, No. 10; and he left me in August, 1844, perfectly cured. At intervals of a month, he paid me one or two visits, in order that I might examine the urethra, and see that there was no disposition to relapse. Seeing there was none, he prolonged the intervals between his visits; and the last time I saw him was after an interval of six months, when I was able, with perfect ease, to introduce the same sized instrument that I could when he had left my care. He informed me that he had not, in the interval, discovered the slightest symptom of stricture, nor had he experienced any inconvenience, and that he had regularly hunted the last two seasons.

There are other instances of irrational conduct, both as regards the patient and the surgeon; and of these I know none more reprehensible than that of patients, labouring under severe strictures, accompanied, as they frequently are, by irritability and spasm, going and submitting to a five minutes attempt to pass instruments, and afterwards returning home in all kinds of weather. It is to this attempt to do in a few minutes, and, as it were, by a species of *coup de main,* that which time, patience, and care will alone, in a great majority of cases, enable us to accomplish, that is to be attributed a vast proportion of the dreadful cases of stricture, complicated with false passages, fistula, &c., &c., we meet with. It may be urged, as some justification on the part of these surgeons, that their engagements are so numerous, that it is impossible for them, consistently, to give up hours, or even half hours, to individual patients. With respect to such a plea, it appears to me, that if they cannot devote the full

time such cases require, it would be more humane, not to say more honest, on their parts, to tell their patients so at once, rather than to leave them to find it out themselves by such bitter experience.

In concluding these observations, I can only repeat, I have thus denounced, and held up to the execration of the profession, these irrational, cruel, and dishonest proceedings, with no view of attacking individuals or a class, but of exposing a vicious and too prevalent system, as injurious to the patient as it is disgraceful to the operator.

At the same time, I may be allowed, without presumption, to hope, that the junior members of the profession will attentively peruse the cases I shall presently adduce, as not only justifying the tone of censure I have used, but fully confirming the opinion I have repeatedly expressed, that by patience, care, and ordinary skill, the most apparently hopeless cases can, in many instances, be cured, and nearly in all, be relieved.

CHAPTER VI.

ON THE DIFFERENT METHODS OF TREATMENT ADOPTED FOR THE CURE OF STRICTURES OF THE URETHRA.

THE modes of treatment usually adopted are,—first, the dilatation of the stricture by wax, flexible gum, or solid metallic bougies; which is the treatment commonly pursued by English practitioners. Secondly, the dilatation of the stricture, by the introduction and retention of catheters in the urethra, until a full-sized instrument can be passed: this method is more practised in France than in this country. Thirdly, the application of the lunar caustic, conjointly with dilatation. Fourthly, the division of strictures by means of cutting instruments, termed lancetted stiletts, (a barbarous and exploded method, attempted to be revived by Mr. Stafford). Fifthly, fluid pressure, by means of an ingenious instrument, invented by Mr. Arnott, for the dilatation of stricture. And, lastly, the application of the potassa fusa.

The treatment by simple dilatation consists in the gradual dilatation of the stricture, by the introduction of solid or flexible bougies. These operations are performed at intervals of two or three days; the size of the instruments being increased in proportion as the contractions yield, and until an instrument of the full diameter of the patient's urethra can be passed. The time the bougie is allowed to remain at each operation varies; some surgeons recommending that it be kept in for a few minutes only; others, for a much longer period. The most general practice, however, is to allow it to be retained from five to fifteen minutes; the difference in the time depending

more upon the caprice or convenience of the surgeon, than upon any fixed rule.

Considerable difference of opinion exists as to the specific action of the bougie on a stricture. Some assert that its action is purely mechanical; that, like a wedge, it stretches or dilates the stricture, but does not remove the indurations constituting the disease. Others, on the contrary, maintain that its action is not so limited, but that, by its pressure on the indurated tissues of the urethra, an increased action of the absorbent vessels is excited; that thus the morbid deposits are absorbed, or removed, and that the canal is thereby restored to its natural and healthy state. The advocates of each of these opinions adduce many plausible arguments in support of their respective views; but as it is a question that will not admit of our arriving at a positive conclusion, from our inability of obtaining ocular demonstration of the state of the parts when contracted, or whilst under the influence of our treatment, its discussion here would lead to no practical advantage. I shall, therefore, merely remark, that I incline to the former opinion. In doing so, I am mainly influenced by my experience of the little permanent benefit derived from the use of bougies alone. Were the theory of absorption correct, the cure effected by them would be of a permanent character; whereas, all that is obtained by this method, except in very slight cases, is a shorter or longer intermission, and not a complete eradication, of the disease; as it never fails, after a shorter or longer period, to reappear in all its former virulence. In addition to this fact, it must be considered that the stricture, in its primary formation, was slow in its progress, and that it is only, on the discontinuance of the treatment by dilatation, that it becomes,

with comparative rapidity, reformed. This last fact is, in my humble opinion, all but fatal to the theory, by showing that it is, if not absolutely and altogether erroneous, at least exceedingly doubtful.

This want of permanency in the cure of stricture, by the method of dilatation alone, offers an almost invincible objection to our implicitly trusting to it, even in the less severe forms of the disease. But, in such as are impervious to instruments, the objections to it are of a still stronger, or. more correctly speaking, of an insuperable character. Let us take a case of the latter description, —one, for instance, that will not admit of the passage of even the smallest instrument,—and what is the course which the advocates of this method recommend? They first tell us to note the size of the stream of urine the patient voids; next, to select a corresponding instrument; then endeavour to pass it into the stricture, and so dilate it. Now, if we act upon this advice, and employ a firm metallic instrument, we shall, from the fineness of its point, incur the greatest risk of piercing the urethral membrane, especially if we use the firm pressure recommended by some of its advocates. In this case, the indurated stricture resisting, as it probably will, the further progress of the instrument, the unindurated portions, immediately anterior to the contractions, will run the greatest risk of being ruptured. As the point of the instrument is moved about in order to insinuate it into the stricture, it is most liable to slip into the superior, inferior, or lateral parts of the urethra, by which it is surrounded. Should it be pressed forward in any of these erroneous directions, its fine point would readily make its way through, and out of, the urethra, thus forming a false passage, with all its attendant evils. Gum catheters, with stiletts, are equally dan-

gerous; whilst, on the other hand, wax, or flexible gum bougies of this size, are so weak, that, when pressure is used, they immediately bend in all directions, giving the operator no control over, or even knowledge of, the direction they have taken.

I feel well assured it is in attempts, such as these, to dilate impervious strictures with small instruments, that two-thirds of the false passages, we meet with in practice, have their origin. But, were the foregoing objections wholly groundless, yet there would remain another, and this a very strong one, against our relying on the bougie alone for the cure of severe strictures,—I mean, the length of time required to effect a cure; three or four months frequently elapsing before it can be accomplished.

The objections against the sole employment of the method of dilatation, for the cure of severe strictures, may be thus summarily stated: firstly, the little permanent benefit it affords; secondly, the risk it involves of lacerating the urethra, and thus forming false passages; and, lastly, the length of time it requires to effect a cure. If we superadd to them the fact, that months are frequently spent in unsuccessful attempts to dilate a stricture, we shall have pretty conclusive reasons for our not relying on this mode of treatment alone. In a subsequent part of this work, I shall suggest some improvements on the present system of treatment by dilatation, whenever recourse to it may be deemed advisable. Let us now proceed to the consideration of the treatment with catheters.

The treatment of strictures with catheters is held in high estimation by French surgeons. The method they adopt, is to pass through the stricture, 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 quite loose, upon which it is withdrawn, and replaced by a larger one. The catheter is thus, from time to time, changed, until one of the full diameter of the patient's urethra can be freely passed. The retention of the catheter is then discontinued; and the remaining treatment consists in the occasional introduction of the catheter, or bougie, as long as the surgeon thinks it necessary.

The chief advantage of the foregoing mode of treatment is the expedition, with which strictures may sometimes be thereby removed. However, the objections to its employment are so strong, as altogether to outweigh this solitary and uncertain advantage. The objections against this method of treatment are; first, the confinement to which it subjects the patient; next, the pain and severe irritation, the prolonged retention of the catheter excites in the urethra, the prostate gland, and bladder; and, lastly, the necessity, thus arising, for administering large doses of some opiate preparation, in order to allay, or keep in check, the local, as also the constitutional, disturbance. It sometimes happens, too, notwithstanding the employment of these precautionary remedies, that severe irritative fever is produced.

But those are not all the evils that might arise from this treatment. For example, the inflammation and irritation, produced in the urethra, may extend to the cellular tissues surrounding it, and lead to the formation of perinæal abscesses. And even when the inflammation does not terminate in suppuration, there is left, more or less,

thickening and induration, which hereafter may prove exceedingly troublesome to the patient.

From what I have just stated, the reader will readily imagine that, upon the whole, I am no advocate for this method of treatment. Yet I fully admit there are some cases in which it becomes absolutely necessary, and many more in which, if judiciously employed in a modified form, it is highly beneficial. Among the former are those in which false passages exist, and in which the instrument has been passed for the first time, with great difficulty, and, after many failures, in the right course. In such cases, the benefit that will result by the enlargement of the natural passage, from the prolonged retention of the catheter, justifies the incurring some risk. Again, where fistula exists in connection with the urethra, it is highly advantageous to retain the catheter, in order to prevent the escape of the urine through the fistulous openings, and thereby increase the prospect of their healing. Among the latter, are cases of permanent stricture, accompanied by great irritability of the contracted part of the urethra, and by violent spasms. In such cases, although the permanent stricture be pervious to an instrument, yet it is so irritable and sensitive, that the moment the bougie reaches the contraction, violent spasmodic coarctations arise, and the passage through the stricture is thereby completely closed.

In the last mentioned case, if, half an hour before we operate, we administer an anodyne enema, the irritability and spasm will often be so much lessened, that we may succeed in passing through the stricture a small flexible catheter. If we can do this, and retain the catheter twenty-four hours, we shall find we have made considerable progress towards a cure. But I shall reserve any further remarks on the advantages of this treatment, in a

modified form, for a future chapter, wherein I shall suggest an improved plan of carrying out the treatment of dilatation, both with the common bougie, and with catheters.

ON THE TREATMENT WITH LUNAR CAUSTIC.

Caustic applications have been employed for the cure of strictures from time immemorial. The only one, however, that ever attained even an ephemeral repute, was the lunar caustic; but it was nearly totally abandoned, when it was revived by the late John Hunter, and afterwards by the late Sir Everard Home. Since their time it has, however, again fallen into desuetude. But it is a question well deserving serious consideration, whether the discredit into which it has fallen, both with the profession and the public, be well merited. Though I am an advocate for the application of escharotics, as the most speedy and effectual mode of curing certain kinds of strictures, and though I do not use the nitrate of silver myself, as I think the potassa fusa a much better remedy, yet, I am persuaded, that the evils said to have resulted from the application of lunar caustic have, in a great majority of cases, rather been the effects, either of a want of experience on the part of the surgeon, or of foolhardiness and indiscretion in his application of this powerful remedy. The works of Sir Everard Home on this subject afford many incontestable proofs of the indiscreet, not to say reckless, manner in which he indiscriminately employed the nitrate of silver. Now, if so eminent a surgeon evinced so little discretion, is it to be wondered at that his disciples were at least equally indiscreet? But as the latter could not hope for the same impunity as Sir Everard, with his high reputation, or were more open to conviction,

it is in either case no matter of surprise that, appalled by the sufferings of their patients, they should, after altogether discarding this mode of treating strictures, denounce it with such unmitigated violence.

It must be confessed, however, that the application of nitrate of silver to strictures frequently gives rise both to severe attacks of retention and alarming hæmorrhage. It is for these reasons, coupled with the fact, that I have never known such results happen from the application of the kali, that I rarely employ it myself.

ON THE TREATMENT WITH CUTTING INSTRUMENTS.

This barbarous method of treatment was first employed three centuries ago. The amount of surgical knowledge in those days, relating to the nature and treatment of diseases of the urinary organs, was so limited, that no one can feel surprised that this method should be then pursued. But that, in the present day, surgeons should be found advocating, and almost indiscriminately following, such a dangerous practice, is, indeed, a matter of both surprise and regret. Revived at different periods, it was as often abandoned, in consequence of the disastrous effects which resulted from its employment, such as alarming hæmorrhages, division of the urethra, extravasation of urine, formation of false passages, and fistula in perinæo. To those must be superadded, the intense pain caused by the operation, and the subsequent agony the patient endures, on his urine passing over the incised portion of the urethra. In short, of all the methods of treatment for the cure of strictures, this is the most irrational and dangerous. In almost every instance of stricture, pervious to instruments,

all that is required for its cure is patience on the part of the patient, and gentleness on that of the surgeon. In cases impervious to instruments, the danger of a false passage being made is greatly increased by attempting to push through the stricture a cutting instrument. Should the attempt partially succeed, and it be found necessary to repeat the operation in a few days, what means in this case would the surgeon possess, to direct a cutting instrument in such a way, as to make his next incision in a direct line with the former? If he cannot do this (which he *assuredly* cannot), it would follow, that instead of obtaining a direct and straight passage through the stricture, he would make an irregular and jagged one. But these considerations, serious as they are, would not constitute the only objections; for, let any man look at these cutting instruments, and he will perceive at once, that the incision, to be made by the stilett contained at the point, can bear no proportion to the size of the instrument itself. If the stricture is not completely divided by the first incision, it will be necessary to repeat it, in which case the larger point of the instrument must be forcibly thrust through the part first incised, consequently causing more or less tearing.* But, in short, the objections to this treatment are so multitudinous, that the only source of wonder is, how any surgeon can be found rash and reckless enough to adopt it! I know well enough, that this treatment has occasionally

* The point is three or four times larger in circumference than the stilett, with which the opening is effected, and through which it must advance before another incision can be made. Consequently, if the operation is to be continued, the large blunt point of the instrument must be forced through the minute incision made by the lancetted stilett. Thus the stricture must *first be cut*, and then *the edges of the wound forcibly torn asunder*, before the operation can be completed.

succeeded; but I hold that the successful performance of a dangerous operation, in a few instances, affords no justification for its indiscriminate use, in cases that might be cured by less painful and, I might say, desperate means. I shall, hereafter, whilst detailing the history of a few cases, have occasion to notice some of the appalling consequences resulting from this mode of treatment.

ON THE TREATMENT WITH ARNOTT'S FLUID DILATOR.

Mr. Arnott has invented an ingenious instrument, for the purpose of dilating stricture by means of fluid pressure. Although, in theory, this method of treatment is a very plausible one, it is found, when attempted to be carried into practice, to be utterly useless, and I believe the instruments are no longer made. I need, therefore, devote no further time to its consideration, as it may be regarded as abandoned and obsolete.

ON THE TREATMENT WITH THE KALI PURUM, OR POTASSA FUSA.

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, proceeding to explain the mode of its action on the disease, offers the following remarks and explanations on this subject:—"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 the 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 liquefies, 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 liquefy 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, enclosed 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 inquire 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 favour 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, 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 time 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 every day saw yielding rapidly to this mode of treatment under my father's care, without producing any of those violent symptoms which 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 thraldom of prejudice;* and to this I ascribe my great success in the 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 reputation. I say it with the sole view of illustrating the safety and efficacy of the treatment by the kali, against which so much ill-founded prejudice still exists in the minds of many of the profession, resulting. I am well convinced, from speculative crotchets, wholly unsupported by practical experience. 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 of Mr. Abernethy on the subject:—"The practice 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

* As an illustration of the timidity shown 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 the following passage from the published lectures of an "hospital surgeon:"—"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."

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 forms 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, who to the highest skill united the greatest caution, and 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, which 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 everywhere expresses himself against any violent mode of treating the disease. Having, from the foregoing authorities, adduced at least strong presumptive evidence in favour of the treatment by the kali, and presented sufficient inducements to the profession to extend their inquiries on this head, I shall now make some practical remarks on its application in different kinds of stricture.

CHAPTER VII.

ON THE APPLICATION OF THE POTASSA FUSA TO SPASMODIC AND PERMANENT STRICTURES OF THE URETHRA.

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 it arise. Fortunately this operation can be effected in most cases. Should the stricture, however, remain impervious 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 if possible than when an instrument can be passed. Before applying the kali, we introduce a soft wax or model 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, as also the probable diameter of that opening. By this means we shall be enabled to direct the point of the bougie, upon its next introduction, towards the aperture. For instance, after having in vain endeavoured to pass a bougie

of any description, I have, after taking this impression, not unfrequently succeeded. I recollect a case in point, that of a man labouring under severe stricture, who had been eighteen months at a dispensary, and six months at one of the metropolitan hospitals, without a bougie having in the interval passed beyond the stricture. He was at length told that the only means which remained was an operation for the division of the stricture. This he would not consent to, and in consequence applied to me. After taking an impression, I succeeded 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, in this way, obtained the requisite information, we arm the bougie with the kali, cover its point 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* is 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 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 after two or three days. However, the proper intervals between the

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

Such are brief general directions for the employment of this powerful and most valuable remedy. As the numerous cases annexed will serve to illustrate the modifications necessary to be observed in the treatment of the varieties of stricture, I shall, therefore, confine myself to a few general remarks on the treatment of spasmodic and permanent stricture by the kali, as they will not be misplaced here.

ON THE TREATMENT OF ACUTE AND CHRONIC SPASMODIC STRICTURES.

The treatment of acute or inflammatory spasmodic stricture may be stated in a few words:—the administration of aperients, followed by opiates, the application of leeches, warm baths, spare diet, copious emollient drinks, &c.; in short, the whole treatment may be comprised in these two words:—*strictly antiphlogistic.*

But the treatment of chronic spasmodic stricture requires from me a more detailed notice. Here it may be necessary to remind the reader, that I have already described chronic spasmodic stricture to be the effect of inflammation, or of the existence of a greater or lesser amount of morbid sensibility in the urethra, producing a deranged action of the muscles, employed in the expulsion of the urine. I further remarked, that the object of our treatment was at once obvious; namely, the removal of the morbid sensibility, whereby the deranged muscular action is caused. Now, in the treatment of morbidly sensitive surfaces, we find that the application of

caustic not merely removes their irritability, but it excites a healthy action of the parts. The frequent observation of this fact, in cases of irritable chronic ulcers, naturally led to the conclusion, that the application of caustic to the irritable surface of the urethra would produce similar beneficial results—a conclusion which was verified to some extent. But from the impossibility of obtaining the same control over its action on the urethra, as on parts accessible to the touch and the eye, it was found that its application was followed by many untoward symptoms, such as sloughing of the urethra, and profuse hæmorrhage. It was also found that the dissolved caustic did not only act on the parts to which it was applied, but affected, more or less, the whole of the urethra anterior to the stricture,—thus forming an all but insurmountable objection to its employment in any case. It thus happened, that the treatment of spasmodic stricture was almost uniformly confined to the introduction of bougies, under the notion that the pressure of the instrument acted on the chronic inflammation as a mechanical stimulus, or, as Sir C. Bell expresses it,—" that the more acute excitement, resulting from the introduction of the instrument, would disturb and supersede the low chronic inflammation that exists."

In the potassa fusa, however, we have an agent which enables us to produce all the effects which the bougie alone, or when to it is added the lunar caustic, is capable of producing. At the same time, it offers the further great advantage, that in its application we do not incur the slightest risk of producing the ill consequences that have been very generally found to arise from the employment of the simple, or armed, bougie. An additional recommendation of the kali is, that by it we are enabled to

produce, *ad libitum*, as powerful an effect as with the lunar caustic; for from its property of commingling both with the lard with which it is covered, and with the mucous secretion of the urethra, we are able, at the same time, to modify its action to any extent we may deem necessary,—in fact, from the most powerful caustic, to the mildest stimulant.

Sir C. Bell, speaking of the treatment with bougies, offers the following remarks and instructions:—

"In the use of the bougie, we have the means of applying pressure, and at the same time distending the inflamed membrane; by which the low chronic inflammation is disturbed and remedied.

"Being assured that the violence of inflammatory action is gone, if it ever was violent, take a large-sized bougie, introduce it, and press it, until it passes the stricture: let it remain there two or three minutes. On the fourth day introduce it again; and this is to be repeated every other day, until the bougie passes without pain, and the stream of urine is full. But the use of the bougie in this state of the canal is a painful remedy. Sometimes the inflammation does not diminish, but is greatly increased, with frequent spasms, and there follow swelled testicle, and all the train of distressing symptoms which delay the cure, and irritate the patient.

"But sometimes, as has been already said, this severe practice is attended with good results, and the explanation of it is this,—that it is the pressure on the inflamed surface, and, most of all, the stretching of the inflamed membrane, which disturbs the chronic inflammation of the part. Pain, even swelling, and an increased soreness, are the effects of this practice; but with this new disturb-

ance, the peculiar irritability depending on the former morbid state is diminished. The following is a daily occurrence:—N—— complained, that although the violence of his gonorrhœa was subdued, and he had been comparatively well for some time, there yet remained a clear gleety discharge. He was prevailed on to allow the introduction of the bougie. One of the largest size was passed: he fainted during the operation, from that indescribable nervous sensation, which will sometimes creep over a man, who has a bougie introduced for the first time. The resistance to the bougie was only such, as indicated that the membrane of the urethra was fully on the stretch. There succeeded to this, a copious purulent discharge, which subsiding, left him free of all complaint: repeated experience establishes this fact. D—— came with symptoms of stricture: a resistance was felt near the bulb to the introduction of the bougie, and there was extreme tenderness. Notwithstanding the sufferings of the patient, the bougie was forced in. A similar operation was performed on the third day after, on the seventh, and on the twelfth: when the bougie passed without pain, and the urine flowed freely, without heat or spasm.* "

We have here the important admission that this treatment is "*a painful remedy*," that "sometimes the inflammation *does not diminish,* but is greatly increased, with frequent spasms; and then follow *swelled testicle*, with all the train of distressing symptoms, which delay the cure, and irritate the patient."

With such admissions on the part of the surgeon, I presume there are few patients who would feel inclined to submit to this mode of treatment, and I would fain hope

* Bell, on the Urethra.

that there are fewer surgeons who would adopt it, notwithstanding any success that may have attended it.

For my own part, I have so often seen every painful symptom, aggravated to a most distressing and alarming degree, by the adoption of methods similar to those above recommended, that it is only the great respect I entertain for that justly celebrated surgeon, that could induce me to give momentary credit to his assertion, that any patient was ever benefited by a mode of treatment, as cruel as it is dangerous. At all events, it is a mode of treatment I should neither recommend, nor adopt myself, especially as we possess in the kali both a safe and speedy means of cure. With this strong conviction of the efficacy of the kali, I would recommend the following treatment:—The situation of the stricture having been ascertained, a wax bougie, armed with the kali, and its point well covered with lard, should be rapidly passed down the urethra, to the seat of the stricture. It should then be allowed to remain there a few moments, to permit the lard to dissolve, and spread over the urethra around the stricture. It should next be gently drawn backwards and forwards over the seat of the disease, for the space of a few minutes, or until the patient felt a sensation of heat. In the latter case it should be withdrawn; whilst the application should never be so prolonged as to occasion a *burning sensation.* This operation, repeated at intervals of three or four days, will suffice to remove the disease, without subjecting the patient to the slightest risk of being put to the painful consequences, so graphically described by Sir C. Bell, as the occasional concomitants of the method which has been ushered into the world under the auspices of his name.

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 than 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 their motives would not bear inquiry, and that they merely accommodate themselves to the strong dislike which all feel, at first, to submit to any sort of operation. They thus consult their own petty and sordid interests, without the least regard to the sufferings which they may eventually entail on their dupes. I have the concurrent testimony of all the eminent and respectable members 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 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 an instrument hastily into the bladder is sure in almost every case to aggravate the symptoms, by superadding to them a re-

tention of urine. It becomes, therefore, necessary to inquire into the state of the patient's stomach and bowels, and if they are 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 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 alone be 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 by two or three applications of this remedy, I frequently removed spasmodic strictures, which had for months baffled all other modes of treatment.

ON 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 my objections fairly and candidly—objections founded on experience, and some of them admitted by the profession; though, in treating the disease, the latter still retain them. I shall now state my own method of treating permanent stricture; but 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 again in two days. 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, and, except in very aggravated cases, discon-

tention it as soon as that sensation becomes *painful.* ing. 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, that the patient experiences 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; always, however, 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 the obstruction or stricture. I proceed in this way, until the stricture is removed, only occasionally passing bougies, 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; on the contrary, I have found the cure hastened by this treatment. 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 improper, as likely to cause the too early separation of the slough, and thus give rise, in all probability, to considerable hæmorrhage, 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 which I recommend and employ, 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: in this case, as in every other, rashness, instead of promoting, marring 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 quite as safe as it is efficacious.* My opinion in this respect is not lightly taken up, but founded upon years of extensive, and, I may say, most successful practice; and how differently remedies act, according to the manner in which 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 prepa-

* If the non-professional reader, upon consulting an individual, no matter what may be his station in the profession, or his celebrity in the eyes of the public, find that in the preparatory examination, a want of dexterity in the use of the bougie, or more especially, the slightest disposition to resort to force, in order to pass an instrument into the bladder, be evinced, he should quit him at once; for he may rest assured that the individual is either grossly ignorant, or utterly reckless.

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

CHAPTER VIII.

ON DISEASES, WHOSE SYMPTOMS RESEMBLE THOSE OF STRICTURE.

As there are many diseases of the urinary organs, the symptoms of which resemble those of stricture, it may be desirable to notice them, were it only to prevent the inexperienced practitioner from being led by this similarity into an erroneous diagnosis on the subject. The diseases 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.

ON IRRITABLE URETHRA.

The membrane of the urethra possesses so high a degree of sensibility, that the slightest causes are often sufficient to excite a diseased action in it; and, when once excited, it is often extremely difficult and tedious to restore the canal to its natural and healthy state. 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 analogous to those of stricture, from which, however, they may be distinguished by the following signs. Although in both cases, there may be a discharge of mucus from the urethra, and pain be felt in voiding the urine and in the emission of semen, there is yet this difference,—that in the former case, but never in the latter, the difficulty gradually diminishes, as the water passes; and before one half of the bladder is emptied, the stream of urine acquires its natural diameter. When any doubts exist, respecting the nature of the malady, nothing more is necessary than to examine the canal with a bougie, in order to remove them at once. 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 (and this not unfrequently) to the very malady which it is intended to remove. For the purpose of illustrating this, we will suppose a case, which, I need scarcely, after the facts I have related, assure my readers is of no unfrequent occurrence. A patient, labouring under the symptoms 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 likely, if he has not seen many of these cases, at once coincides in the patient's views, and proceeds to examine the urethra. Here generally commences the first fault. Instead of taking a full-sized instrument for the purpose of examining the canal, the surgeon will most probably select a small one, under the mistaken notion that it will pass more easily, and with less pain to the

patient. In its passage down the urethra, the small point of the instrument will most likely get into one of the lacunæ, or become entangled in the folds of the urethra, or, if it escape these "natural impediments," it may be arrested in the sinus of the bulb, or in the slight narrowing of the urethra 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 the impediment may occur, the patient and the surgeon may be alike deceived into the belief of the existence of a stricture. Under this erroneous impression bougies are employed, and the result is sometimes the laceration of a lacuna or abrasion of the urethra. If the patient escape these evils, it too frequently happens, I fear, that a stricture results from the unnecessary and improper employment of the bougie. I could adduce here, in addition to those elsewhere related, many instances confirmatory of this; but that I may not multiply cases, I shall content myself with stating, from my note-book, that in the course of one year, I *have* been consulted in twenty cases of irritable urethra, which were erroneously supposed to be strictures. For an explanation of the causes which 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 the means of avoiding them. I shall consequently content myself with 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 in-

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

strument 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 magna than if we use a larger one. In passing a small bougie, should its point be arrested about three quarters of an inch down the canal, we should neither hastily conclude that the obstruction arises from stricture, nor endeavour to force the instrument forward. For if the point of the bougie be merely entangled in a lacuna, which will most likely be the case, much mischief may arise by forcing it onward. Instead, therefore, of pressing it onwards, it should be withdrawn a little; and, then giving the point a different direction, we should press it forwards, when if there is no stricture, it will most probably pass on to 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 should, as above directed, withdraw the instrument, and then pass it in a different direction, when, if there be no stricture, it will advance.

This is 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 the preceding rules and landmarks, if I may so express myself, that we must in a great degree attribute the frequent mistakes which are made with respect to the existence of stricture. I have myself little doubt that strictures have been frequently caused at these parts merely from 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. An erroneous opinion either way cannot 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 will 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 command his esteem: the ignorant alone persevere in error.

ON ENLARGED PROSTATE GLAND.

Amongst the causes 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, if much advanced, is almost of itself a protection against a wrong diagnosis. Besides, if an examination of the prostate per anum be made, there will be no difficulty in coming to a correct conclusion.

ON IRRITABLE BLADDER MISTAKEN FOR STRICTURE.

There is so intimate a connection between the whole of the urinary organs, that it is all but impossible for one to be deranged, without producing a derangement of all the others. Hence arises a complication of symptoms, not unfrequently leading to grave errors in the treatment of the diseases to which those organs are liable. There is scarcely a malady of the urethra which does not, particularly if it be of long standing, more or less derange the functions of the bladder. If unchecked, it is almost sure to produce an equal state of derangement in the ureters and kidneys; 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 these 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 the irritation. Without the presence of stricture, stone, or enlargement of the prostate gland, a derangement of the bladder, known by the name of irritable bladder, frequently occurs.

I find from my own experience that the disease last mentioned 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, in which disordered stomach and bowels have produced symptoms which have been mistaken and even treated for spasmodic stricture. We should therefore in all these diseases, as in others, direct our attention to the digestive organs. Unfortunately, this is much neglected in the treatment of stricture, and other 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, which would prove eminently successful, if they were not given (if I may so express myself) empirically.

Irritability of the bladder is often produced by a severe attack of gonorrhœa, the inflammation, from which ex-

tends along the urethra to the bladder. In other instances it arises from the employment of stimulating medicines and injections in the early stages of clap, whilst the inflammatory symptoms are urgent; or in some cases from a too powerful injection having been used to arrest a troublesome gleet. Under either of these circumstances, 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 oftener, in which case only a few drops are voided, or a little is violently ejected or squirted out, producing the most excruciating pain, both at the neck of the bladder and throughout the whole length of the urethra, but especially at the extremity of the glans penis. At the same time, there is a sensation of fulness over the pubis, and the bladder feels distended, though there is, perhaps, not an ounce of urine contained in it. Such are the symptoms in the more acute state of irritation of the bladder. In this case, leeches, tepid bathing, and regulation of the bowels must be the mode of treatment. There is, however, another state of irritation, more insidious, but scarcely less dangerous than the former, and presenting, though in a lesser degree, all the foregoing symptoms. The desire, however, 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 also occasionally a kind of chalk and water secretion, which is not less irritating, and, if allowed to dry, may be brushed off like dry chalk. 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 glans, to relieve which, the patient forcibly pinches it. These symptoms continue with more or less intensity, occasionally, nearly or totally, disappearing, but making their re-appearance 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 distention. In consequence, the inner membrane is thrown into rugæ, which 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, if unrelieved, makes rapid progress; 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, plain diet and drink, 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 mucopurulent secretion from the bladder, the injection of warm water into that organ 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 IX.

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

RETENTION OF URINE.

This is a very frequent attendant on every form of stricture. 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. Although, in most cases, its causes are similar, and, in all, its symptoms are alike, yet the treatment of this disorder is far from being uniform. Therefore, before we adopt any line of treatment for the relief of a patient labouring under an attack of retention of urine, it is of essential importance to learn, if possible, the previous condition of the urinary conduit. On the information the patient may give will depend, in a great degree, the mode of treatment to be pursued for his relief. In my opinion, there is a wide difference, in the treatment to be adopted in cases of retention, according as they are dependent upon one or the other form of stricture. Thus in retention of urine in a case of spasmodic stricture, we may, fearlessly and at once, 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 in considering the treatment of retention under the former circumstances, it becomes necessary briefly to recapitulate the observations already made on the nature of spasmodic obstructions in the urinary canal.

In the preceding pages I stated spasmodic stricture to be an inflammation of the urethral membrane, inducing an irregular or undue action in the muscles employed in the excretion of urine.

A patient, whose urethra is in this state, perhaps joins a dinner party; drinks freely of wine, and commits all kinds of imprudent acts. His whole system is in consequence very quickly in a state of excitement; and the causes that thus heat his blood give additional intensity to the inflammation or irritation pre-existing in the urethra; producing in its turn a corresponding increase of irregular action in the muscles of urinary expulsion: the result of which is a retention of urine. This is a very common way in which retention is produced. It may, however, arise from 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, as a necessary consequence, remove the spasmodic affection dependent on it.

This view of the case would lead us to employ local, or perhaps general, bleeding, warm baths, aperients, espe-

cially in the form of clysters, and, after the evacuation of the bowels, opiate enemas, &c. But, advantageous as such a mode of treatment would undoubtedly be, there are insurmountable objections to our confining ourselves to it, of which the principal one is the time that must elapse before its beneficial effects can be experienced, and the consequent prolongation of the intense suffering to which the patient is put by this mode of treatment. This is, however, not the sole objection to its adoption. There is another, fully as strong, in the continued straining of the parts, from the patient's fruitless attempts to void his urine, which are almost certain to increase the violence of the retention, and perchance render these means abortive. These circumstances constitute, in my opinion, insurmountable objections to our confining our attempts at relief to antiphlogistic means. I say this with all due deference to those gentlemen who are of a contrary opinion, and who, in their practice, pursue a course opposed to the one 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. This being the case, the question now suggests itself: can we remove the irregular spasmodic action, and thereby at once relieve the patient, leaving the inflammation to be treated as a matter of after-consideration? To this I reply, from experience, that we can; as we are able, in most cases, by the mere introduction of a bougie into the urethra as far down as the stricture, to bring on that consent of the parts which is only wanted to cause the urine to flow.

Therefore, 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, instead of consigning him to the prolonged suffering attendant upon the adoption of the antiphlogistic treatment alone.

Conformably to the foregoing opinion, I adopt the following method of treatment:—I, first, attempt to relieve the patient by the use of the catheter. If it pass 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 with 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 must wait a few minutes, and then again urge the instrument 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. In this case, immediately after the patient has emptied the bladder, we should adopt active antiphlogistic measures, in order to relieve the inflammation and irritation, and thus prevent the recurrence of the retention. But if the retention continue, notwithstanding the employment of the catheter, we should without further loss of time, adopt the most active antiphlogistic treatment. Having thus given our patient a chance of immediate relief, we must, in case of failure, be content to wait the result of more tardy means.

In retention of urine complicated with permanent stricture, it is very questionable whether we ought to attempt the relief of the patient by having immediate

recourse to the catheter or not, especially, if the stricture be impervious to an instrument. If, only a few days before the attack, a moderate-sized bougie could have been passed, I should then be inclined to attempt the immediate relief of the patient by the catheter, from the great probability that the retention arises from spasm. But if no instrument could be passed, previous to the attack, I should not attempt to relieve the patient by the catheter, till all other means, such as general and local bleeding, aperients, anodynes, warm baths, fomentations, &c., had failed.

But in retention, arising from permanent stricture, it will sometimes happen that all these means for relieving the patient will prove abortive. Then arises the important question: what is next to be done? We see the patient labouring under the most acute agony,—the bladder reaching up to the umbilicus, and tense as a ball. At the same time, words are feeble in depicting the intensity and severity of his sufferings; whilst his life hangs on a thread. Great as his sufferings are, and appalling as the danger is that threatens him, we must not, however, despair, but rather calmly look around for means of relief. What are they? Shall we attempt by force to break down the stricture; carry a catheter on to the bladder, and thereby at once overcome the retention and stricture? The idea is a plausible one, and withal has the merit of dispatch, so attractive to the young and inexperienced. But, nevertheless, it is a most dangerous mode of practice, and one that, with all due deference to those who recommend and practise it, I am apt to think no circumstances can justify. Force a stricture! the patient cured by a *coup-de-main!* Where is the young

surgeon that would not rather boldly attempt to cure his patient in this summary way, than by the slow process of 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 consequences of using violence in the urethra with instruments. Let us suppose the catheter fixed against the obstruction; that it advances; that it is going in; that a tear is felt; that blood flows copiously; that the catheter is at last inserted its whole length; still the great question remains to be answered: has it entered the bladder? No; the catheter has passed through 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 is, in my opinion, in every way preferable to any other. The risk of forming false passages, is an insurmountable objection to the employment of force, even by the most skilful hands. The injury to the bladder from its puncture is a serious objection to that line of treatment; whilst the only objection to the other is its difficulty. But this is not a legitimate objection; as the difficulty attendant on an operation is no justification for the surgeon substituting another, 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 to which I have alluded.

ON FISTULA IN PERINEO.

When this disease arises from stricture, our first object must be to remove the impediment to the free passage of the water along the natural canal. Until this be done, it will be in vain to expect the fistulous openings to heal 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 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 fistulous openings, prevents their healing), it becomes necessary to adopt the occasional introduction of the instrument. When these means fail, and the fistulous openings appear indolent, stimulating ointments and caustic applications should be

employed to excite a healing process. Should these last means also prove ineffectual, it would be then advisable to try to lay the sinuses completely open, and treat them as common wounds.

ON 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 prevention is better than cure, to keep him well under the influence of some opiate preparation, whilst he is under a course of operations. Attention to this point will very generally prevent the attack, or, at any rate, very much lessen its severity.

When rigors occur, notwithstanding these precautions, we should immediately administer a full dose of some opiate preparation, conjointly with diaphoretics and salines. The effects of these medicines may be increased by the use of the warm-bath, or, if this cannot be provided, by the immersion of the feet in warm water, and the application of bottles of warm water to them afterwards, when the patient is in bed, these being an excellent substitute for the warm bath. You must never bleed, it having proved a fatal error. In the more chronic attacks of rigors, quinine and opium are of great service, especially the latter, which is the most valuable remedy of all.

ON CATARRH OF THE BLADDER.

In the treatment of this disease, when dependent on stricture, we must of course direct our attention to removing

the obstruction to the free exit of the urine. But, in doing so, we may try, at least, to relieve the more urgent symptoms of the malady in question. There are very many remedies highly extolled for their effects in this disease, all of which, according to my experience, are very uncertain. I have successively tried them in different cases; in some, I 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 warm water into that viscus. 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 used with care and discernment, it cannot prove injurious, even if it fail. At the same time, there can be no objection to trying some one of the medicines above-mentioned, in addition to the injection.

ON CYSTS OR POUCHES OF THE BLADDER.

This is a state of the urinary bladder which, when once formed, cannot I fear be removed. The cure of the stricture will prevent its increase, and probably render it of no serious consequence to the patient.

ON THE TREATMENT OF CASES OF STRICTURE COMPLICATED WITH FALSE PASSAGES.

If the surgeon has been so unfortunate as to make a false passage, or is consulted directly after the accident has occurred, he should order the patient to remain perfectly quiet, and to suspend all operations (unless the symptoms of urinary obstruction are so urgent as imperatively to demand immediate relief), for such a length of time as will allow the lacerated urethra to heal. After an interval, which must, in a great measure, be regulated by the circumstances of each case, the operations may be resumed: the operator bearing in mind the situation of his former mischance, and being careful not to direct the point of his instrument in the same direction again.

In some cases of false passage, it is often not at first discovered, that the instrument has taken a wrong route. When this is the case, the operations are continued till the unnatural opening is dilated to a considerable extent, and the error remains undiscovered till the patient, in consequence of not merely not receiving any benefit from the treatment, but from positively feeling himself worse, applies to another surgeon, who probably upon examination, at once detects the mischief that has been done.

In all cases in which we know, or suspect, from the patient's account of his symptoms, that he has had a false passage formed, we should, before we attempt to introduce an instrument, administer an enema, containing sixty drops of Squire's solution of the bi-meconate of morphia. As soon as this has produced an effect on the patient, we may gently try to pass a flexible gum

catheter (without the wire in it) into the bladder. Should we be successful, and there are no acute signs of inflammation or irritation either in the bladder or prostate gland, we must retain the catheter for twenty-four hours, when it may be withdrawn. If no increased irritation has resulted from the retention of the catheter, another of larger size should be passed, and there fixed as in the former case. Another anodyne enema should also be administered, containing perhaps only twenty or forty drops of Squire's solution.* After an interval of twenty-four hours the catheter should be withdrawn; and as the opiate will most likely have constipated the bowels, instead of again introducing the instrument, we should order the patient an active purge. In about three days we may again introduce the catheter, and if it pass without difficulty, treat the case as a common stricture. But if the passage has contracted, and there is any difficulty in introducing an instrument, we must again retain it when it is in, and adopt a similar line of treatment to that detailed above, till, by the constant retention of the catheter, the stricture is completely dilated.

But in some instances it is not possible to adopt this mode of treatment, in consequence of the great irritability induced by the previous operations in the urethra. When this is unfortunately the case, I content myself with recommending the patient to adopt such local and general measures, as are calculated to remove the urgent symptoms of irritation, produced by the abuse of the bougie; and as soon as this is effected, I adopt the plan just indicated.

* I have found this preparation of opium to answer better than any other, and I would strongly recommend it in all cases of stricture, in which it is necessary to give opiates.

ON HÆMORRHAGE FROM THE URETHRA.

On the treatment of this accident I have no practical remarks of my own to offer, as I never had it occur to any extent in my own practice. When it occurs, I should imagine the best plan of treatment would be the application of ice to the perinæum, pressure on the urethra at the region from which the bleeding arises, and probably some astringent and acid medicines administered internally.

CHAPTER X.

SUGGESTIONS FOR THE MORE RATIONAL TREATMENT OF STRICTURES OF THE URETHRA, BY THE METHODS OF DILATATION WITH THE COMMON BOUGIES, WITH THE CAT-GUT BOUGIE, AND BY THE RETENTION OF THE CATHETER.

I HAVE already noticed the methods of cure by simple dilatation, the retention of the catheter, the application of the nitrate of silver, the employment of cutting instruments, and Arnott's fluid dilator. To all of these, I have, without, I hope, prejudice, and with perfect candour, made such objections as they appeared to me to merit. Further, I have given an account of the mode of cure by the employment of the potassæ fusa, which, from my own experience and observation, I look upon, in the vast majority of cases, as the most safe, speedy, and effica-

cious. But, in making this assertion, I am most anxious to guard myself against the imputation of being desirous of holding up this remedy as infallible, or as alone adapted to the cure of every variety of stricture.

In a former part of this work, I stated, "that, with the exception of the dangerous and barbarous excising and scooping modes, and the harmless fluid dilator, the other methods of cure, recommended by different surgeons, if *rationally* carried out, selected with care and judgment, and with a due regard to the symptoms and specialities of each case, will, one and all, be very generally found adequate to the end proposed, however severe the disease may be."

I therefore propose, in this chapter, to offer some practical observations on what I conceive to be the *rational* mode of carrying out some of these different methods of cure, as contradistinguished, in a great degree, from those usually adopted.

To this end, I will first consider a case of simple stricture, pervious to an instrument—for instance, to a bougie of size No. 2—which it is proposed to treat by the ordinary mode of dilatation.

I have already observed that, in the vast majority of instances of hæmorrhage, torn urethra, and false passages, occurring in cases of stricture, they arise from attempts to dilate the morbid urethral contractions with *small instruments.* In the case already supposed, a bougie of a size corresponding to a No. 2 having passed, the stricture therefore belongs to the category of pervious ones. Nevertheless, in a stricture of this description, although we may readily, at one time, pass an instrument through it, yet, at another, either from spasms, or some

other temporary cause, we can do so only with great difficulty, and sometimes, not at all.

When either this increased difficulty, or total inability, occurs, and the treatment is by dilatation, the inexperienced surgeon, perhaps encouraged by his previous success in having passed an instrument, is too apt to prolong his attempts to introduce the bougie, and thus produce hæmorrhage and pain, and, sometimes, more serious evils; whilst the least effect of this course of proceeding, is to excite or aggravate any existing irritability. But, even when there is no more difficulty in passing the instruments, than is ordinarily met with in such a case, I have generally found, from my own experience, and from that of others that, in spite of the greatest care, the small instruments, used in the treatment by dilatation, as it is commonly carried out, will occasion more or less bleeding. Besides, their points are very liable to be caught in the folds of the urethra, or entangled in some of the lacunæ, thus exposing them to laceration, unless the operator quickly detect the error, and use at the same time, great gentleness in the manipulation of his instruments.

For these reasons (not to mention other and minor ones), I would recommend, that in a case of this description, as soon as the surgeon has ascertained that an instrument will pass, he should, for a time, abandon all further attempts to introduce small instruments, and employ only large ones. For example, if the patient's urethra be of the average diameter, and, therefore, capable of receiving a No. 12 bougie, the surgeon should content himself with introducing down to the stricture a No. 9 or 10 bougie, and keep it firmly, but at the same time, gently, pressed against the anterior surface of

the stricture. This pressure may be continued from five minutes to half an hour, or more, according to the patient's feelings, or the mutual convenience of the patient and surgeon. At the same time, the greatest possible care should be taken, that the pressure be not continued so long, or so firmly, as to occasion more than that slight uneasiness which the introduction and retention of an instrument naturally occasion. If this mode of treatment be perseveringly carried out for a period of two or three weeks (the operations being in the meantime repeated at intervals of two or three days according to circumstances) it will then be found, that a considerable progress has been made towards the patient's cure, and that a good sized bougie can then be passed. I will further remark, that all this may be accomplished without any bleeding, or any risk being incurred of lacerating the urethra.

The following instance will serve to illustrate the mode of dilatation I recommend:—

A gentleman, labouring under stricture, called on me to place himself under my care, with the understanding that I was to adopt the ordinary mode of treatment by dilatation, instead of applying what he was pleased to designate my remedy—the potassa fusa. Against the latter, he entertained some very silly, but very strong, prejudices, in consequence of having heard from a surgeon, that if it were applied to his stricture, it would "infallibly burn a hole in his urethra."

Foolish and ill-founded as I knew his fears to be, I of course told him that if he had so great a dread of the potassa fusa, I should not use it. Upon examination with a full sized bougie, I ascertained the existence of a stricture at the bulb. I tried to pass through it various sized

instruments, both solid and flexible; but it was only on trying with a gum catheter on a stillet (about size No. 1), that I succeeded. No bleeding had been occasioned by the first attempts with fair sized instruments. But, immediately on the withdrawal of the small catheter, a tea spoonful, or more, of blood escaped from the urethra. On the third day from this time, the patient waited on me again, and informed me that, for a few hours after the operation, a slight oozing of blood had occurred. He also said he had experienced a little increased smarting on the first three or four occasions he had to pass his water after the operation. He was at this time, however, entirely free from any, except his usual symptoms. I introduced the same catheter as I had at his previous visit. In passing it down the urethra I was, thrice, obliged, partially, to withdraw it, in consequence of the point catching in the folds of the urethra, or in some of its lacunæ. The patient complained, at the same time, of the painful pricking sensation caused by the instrument, and said that the small instrument, in passing along the unstrictured portion of the canal, occasioned much more pain than the larger ones. When the catheter was withdrawn, a few drops of blood escaped. Nearly similar results attended three or four more operations, performed at intervals of two days, without producing any material alleviation of the stricture. I therefore recommended the patient (provided he persisted in his determination, not to allow me to apply the kali), either to retain the catheter, when next introduced, for twenty-four hours, or to abandon the use of small instruments, and substitute the employment of large ones. As he preferred the latter, I discontinued all attempts to pass instruments through the stricture, contenting myself with passing, on alternate days, down to it a No. 8 bougie, which I kept

firmly pressed against its anterior surface, without attempting to force it beyond that point. *No bleeding* succeeded these operations; nor did they occasion any great amount of pain; whilst the patient was gradually enabled to pass his urine in a much better stream. After this course of treatment had been pursued for two weeks, I was able to pass, with the most perfect ease, a No. 5 metallic bougie; and at the expiration of a month from this time, the patient could himself pass, with great facility, a full sized bougie, No. 12. In the interval, between the discontinuance of the small instruments and the cure, there never was the slightest appearance of bleeding, nor did he experience any pain from the treatment.

I might adduce many other instances, all corroborative of the superior efficacy and safety of this mode of dilating strictures, to that of employing small instruments.

I could also, on the other hand, relate almost innumerable instances, in which an obstinate and ill-judged persistance, in vain attempts to dilate pervious strictures with small instruments, ended in laceration of the urethra, the formation of false passages, extravasation of urine, and a host of other evils, if I were not withheld by the fear of extending these observations beyond their just limits. In cases of impervious strictures, should the patient object to the treatment of them by the kali, or it should be determined, from some other cause, to attempt the cure by the method of dilatation, the surgeon, after having satisfied himself, by a careful exploration of the urethra with differently sized instruments, both solid and flexible, that the stricture is of this description, should for a time refrain from all attempts to pass a small instrument. He should content himself with passing down to the obstruction an average sized one, according to the

rules above laid down for the treatment of pervious stricture.

This method of treatment, if *rationally* carried out, and the employment of force be rigidly avoided, will, in many cases, both of pervious and impervious permanent strictures, provided they are of limited extent, and are unaccompanied by any considerable morbid sensibility or spasms, suffice to effect the patient's cure, or, at all events, to procure him great relief.

But in strictures of great density, accompanied by greatly increased sensibility and spasms, their brief dilatation by this mode of treatment (to say nothing of the length of time required), rarely produces any material benefit to the patient. Consequently, if, either in the more simple case first alluded to, or under the more aggravated form just referred to, no progress is made towards the patient's cure, and if the attempt to remove the stricture, by the dilating power of the bougie be persevered in, I say that, in this case, the surgeon, instead of becoming impatient, and under that feeling having recourse to violence, should on the contrary adopt a system of more continuous permanent pressure. To this end the patient's bowels should, either the night before the intended treatment, or early in the morning, be well opened by the administration of a brisk dose of castor oil. When the action of the aperient has ceased, an opiate enema, containing from forty to sixty minims of the solution of bi-meconate of morphine, should be given; and, about half an hour afterwards, a cat-gut bougie, of such a size as would partially enter it, should be passed down to the stricture, and properly secured in that position. In the meantime, the patient must remain in bed, and retain the instrument until he has occasion to urinate. Upon the instrument being

taken out, it will be observed that, in consequence of the moisture it has imbibed from the secretions of the urethra, it is nearly twice the size it was when first introduced. This property of expansion in the cat-gut bougie gives it, in the treatment I am now describing, a decided advantage over the common wax, or solid bougies. When a solid or wax one is introduced, it can only dilate to the extent of its size; whereas a No. 3 cat-gut bougie, if it enter the stricture, and be retained there, will, in all probability, before it is withdrawn, have swollen to a size equal to a No. 5 or 6 bougie, and of course have proportionately dilated the contraction.

To revert to the directions I gave above: when the patient desires to urinate, and the instrument has been withdrawn, we must in about ten minutes or so, again pass a fresh cat-gut bougie, either of the size of the first, or a little larger. This, as at first, must be retained till the patient has again occasion to urinate, when it should be withdrawn.

In this manner a constant dilating pressure may be directed against the stricture, for a period varying, according to circumstances, from twenty-four to forty-eight hours. The only precaution, to be observed, is to keep the patient in bed, and well under the influence of some opiate. Thus, during the retention of the bougie, I always administer, every twelve hours, an opiate enema of from twenty to forty minims of the above-mentioned solution.

If the stricture still remains impervious to an instrument, we may then, after a lapse of some days, resume a similar mode of treatment to the former, and continue it at intervals till the stricture is overcome. Should there be considerable difficulty in overcoming the stricture, and

at the same time, great spasmodic irritability exist, then, upon the stricture becoming pervious to an instrument, it would much expedite and facilitate the cure, if a flexible catheter were immediately passed into the bladder, and retained forty-eight hours. When, by these means, the stricture has been so far removed, as to admit a moderate sized bougie (say a No. 4), the ordinary mode of dilatation is all that the case may then require.

It may be thought, by the inexperienced in this method of treatment, that the prolonged retention of the bougie would excite considerable irritation. This, however, I can affirm, from much practical experience, is not the case.

The usual effects of this treatment may be stated as follows:—For the first three or four hours, the patient experiences a greater or less accession of pain, arising from the dilatation of the stricture by the swelling of the cat-gut bougie. Then a considerable and continuous secretion of mucus from the urethra takes place, which gradually assumes the yellow colour of a gonorrhœal discharge; and, lastly, in proportion as this discharge increases, the pain decreases, whilst the grasp on the instrument in the stricture becomes less powerful. On the final withdrawal of the bougie, the patient will immediately make water in a greatly improved stream, without any pain, and continue to do so for some hours (say about twelve). The stream then gradually lessens, and there will be also a slight increased sensibility, besides other symptoms of reaction. These, after lasting from twelve to twenty-four hours, likewise gradually subside; whereupon the patient finds a permanent improvement in his power of urinating.

This method of treatment, in conjunction with the occasional application of the potassa fusa, I have found

exceedingly advantageous. I have also found it very beneficial in cases of strictures, complicated with false passages, or fistulous openings, which forbade the use of the armed bougie.

The following cases will serve to show under what circumstances this mode of treatment may be most advisable:—

Sometime about the year 1840, I received a letter from William Mepham, of Battle in Sussex, requesting my advice on his case of stricture. I replied to him that, in such cases it was impossible for me to do anything for a patient's relief, unless he came to London. To this he replied, that as he was only a labourer, he could not afford the expense. I then, in consequence of the deplorable nature of his case, wrote to him that if he could come to town, I should be most happy to afford him, gratuitously, all the assistance in my power. The poor fellow replied to my offer, that he could not even accomplish that; and at the same time requested me to advise him generally as to the best course for him to adopt, in order to allay his extreme sufferings. I prescribed for him such remedies as I deemed necessary, and corresponded with him occasionally. Under the treatment I had suggested, his sufferings were to a certain extent lessened. After some time I ceased to hear from him, and in the summer of 1842, I was surprised by his calling on me. He told me that, seeing no hope of being able to obtain the means of placing himself under my care, he had, at the wish of a gentleman, who was exceedingly kind to him, come to London, for the purpose of obtaining admission to Guy's Hospital, and that he was to be admitted the following day. He added, that he felt it his duty to call upon me, both to thank me for my kindness, and to

inform me of his intentions. I examined him, and found it impossible to pass any instrument through the stricture. I also observed that there was considerable induration along the course of the urethra, extending from the scrotum throughout the whole perinæum.

After the examination he left me with the promise that he would inform me of the result of any treatment that might be adopted at the hospital. He accordingly called upon me about five weeks after, in much the same state as at his first visit, excepting that his general health seemed worse. I now renewed my offer of attendance, should he at any time be able to obtain the means of staying in town. He thanked me and left. Some six months after I received a communication from him, informing me that a most humane gentleman, Mr. Martin, solicitor, of Battle, had, with great kindness and generosity, offered to be at the expense of his residence near to me, if I would afford him my services gratuitously. I immediately replied that I should have much pleasure in doing so. The patient shortly after came to London, for the purpose of placing himself under my care.

I have, unfortunately, lost the notes which I made on his case; but the following letter, in answer to my request to him to furnish me with a brief detail of his case, will, I trust, be sufficient to convey to the reader an accurate idea of the severity of his sufferings, and the great relief afforded by the mode of treatment I had adopted.

"Battle, Sussex, Feb. 18, 1843.

"Most dear and kind Sir,

"According to your request, I send you a few particulars respecting the miserable and afflicting complaint, with which I had been troubled for more than twenty

years, before I was fortunate enough to fall into your skilful and tender hands. The first time that I felt any obstruction in my water was about twenty-five years ago, as nearly as I can recollect, when wanting to make water, but not being in a convenient place for some time, I held it so long that when I tried, I could only get it away in drops. I went directly to a medical gentleman, who passed a bougie with very little difficulty, and I passed a great quantity of water as well as ever, and continued to do so for some time; but, by degrees, I found the stream get smaller. It continued so to do for some years; but not giving me much pain, I neglected to go to a doctor, not knowing the consequences. At length, however, I could not pass my water without straining, when I applied to Mr. ———, surgeon, of Battle, who was unable to pass any instrument. This was some twelve or fourteen years before I saw you. Mr. ——— told me he could cure me if I would submit to his treatment without crying "halt," which I readily agreed to. I then went to him every other day for three months, and he applied the lunar caustic. He then said that he must give me up, at least for a while, or he should quite kill me. I was then scarcely able to get out at all; but after he left off his operations, I continued to get stronger, and in a short time could pass my water better, but still very slowly. I continued to improve a little till 1830, when we had so much rioting and burning of property, that I was for some time employed as a watcher, and much exposed both night and day. I suspect that I over-exerted myself; for after that time I continued to get worse. I used to be taken with cold shivers (meaning rigors) very suddenly, so that I was unable to get home without assistance, and I then suffered so severely for twenty-four hours, that

I was unable to go to work again for many days. I now had frequent retention of urine; sometimes it would take me as long as six minutes to pass as much as a wine glassful; and at the best of times, when I called myself well, it would take me from five to ten minutes to pass even half-a-pint. You can, I assure you, have no idea of the pain I suffered in passing my water, for the last twelve years before I saw you. So great was the straining and exertion required during the whole of that time, to force the urine through the stricture, that I never passed my water without forcing down a portion of the bowel from behind, sometimes to a most alarming extent, so as to require great force to be used in returning it, which gave me severe pain.

"At length I was so worn out with my sufferings, and seeing no hope of relief from any other means, that by the wish of Mr. Martin, I made up my mind to enter Guy's Hospital. As you are aware, I did so; and after I had remained there five weeks, during which time many unsuccessful attempts were made to pass instruments, from which I endured great pain and bleeding, they told me they could not do me any good, unless I would submit to have the stricture divided, by cutting down on the passage from the outside. I consented; but as they said I was not strong enough to submit to the immediate performance of the operation, I returned, by their advice, into the country, in the hopes that my general health would improve, so that the operation might be performed. Mr. Martin's generous assistance, and your successful treatment of my case, rendered it unnecessary for me to return to the hospital; for in eight days after you first operated on me, you effected what all the other doctors could not do for twenty years—that is, you passed an instrument into my bladder, and in three weeks from the

first operation, you passed a No. 10 bougie, and I could pass my water nearly, if not quite, as well as ever I could in my life. All this you accomplished without giving me any pain at all to be compared with what I had suffered before.

"I remain, honoured Sir,

"Your very grateful servant,

"WILLIAM MEPHAM."

As the reader has, from the above statement, seen the happy results of my treatment, it only remains for me to state its nature, which I will now briefly do.

Perfectly satisfied that it would be a loss of time to attempt to dilate the stricture according to the ordinary method (for I could not even insert the finest bougie into it), I at once passed down to the obstruction a full-sized wax bougie, armed with the kali, which I kept firmly pressed against it, until the sensation of burning was rather severe. I made two similar applications during the week. On the seventh day I was about to make another, but, before doing so, I thought I would again try if I could get a small cat-gut bougie into the stricture. I made the attempt, and found that it now readily passed into it, and was firmly grasped. I hereupon determined to give the patient an opiate enema immediately, and leave the bougie in the grasp of the stricture, until I should be compelled to withdraw it by his wanting to urinate, hoping that by that time the spasm would be exhausted, or the stricture dilated by the swelling of the cat-cut bougie, sufficiently to allow of a small instrument passing. The enema had so excellent an effect, that it was some hours before he required to pass water. When he did, I gradually withdrew the bougie (which I found still firmly grasped by the stricture), directing the patient at the

same time to attempt to void his urine. Upon the withdrawal of the instrument from the stricture, the water rushed out in such a stream as the patient had not seen for years. There was not the slightest pain, bleeding, or any one symptom of irritation; and as the result was so satisfactory, I determined upon immediately fixing in another cat-gut bougie. I did so; and saw the patient late at night, when I withdrew the instrument with similar results. As there was not the slightest symptom of irritation, I resolved on fixing in another bougie, with directions not to take it out till I saw him in the morning, unless he was obliged to do so to pass water; at the same time, by way of precaution, administering another enema. The following morning he came to my house early, with the bougie still in. He informed me that he had not only not suffered the slightest inconvenience, but, on the contrary, had passed a better night than he had done for years. I withdrew the instrument, when the urine was expelled in a much larger stream, and with such force and rapidity as perfectly to astonish the patient. From the manner in which it flowed, I was convinced that the stricture was now pervious to an instrument, and I accordingly determined to try and pass a catheter. I took a No. 2 flexible gum catheter, which I found, on comparison, to be about half the diameter of the swollen cat-gut bougie that had been last withdrawn, and which, from its size, I judged would be likely to slip through the stricture, without creating any spasmodic coarctation, which I feared a larger would most likely do. In this opinion I was perfectly correct, the catheter at once gliding through the stricture into the bladder. I now determined to retain the catheter twenty-four hours, and

to that end fixed it in, and sent the patient home to bed. Upon seeing him the next day, and finding he had passed a good night, I withdrew the instrument. From this period the patient was able to void his urine with perfect freedom, and without the slightest pain. During the two following weeks he continued to progress favourably, and I could pass with ease a No. 10 bougie. He was then unfortunately attacked with a violent inflammation of the testicle, which was so severe as to confine him to his bed for more than three weeks. At the expiration of that time he was so weakened by his confinement, that I thought it best to discontinue the treatment for the stricture till his health was better, especially as he had no difficulty in voiding his urine. I therefore ordered him to return home, and remain there till his general health was re-established. He returned in about two months; when I found that I could now only pass a No. 8 bougie. However, by an application or two of the kali, the stricture was soon removed; he returned home perfectly cured; and I believe that from thence to the present time he has remained entirely free from any urinary obstruction.

In this case we see an instance of impervious stricture of many years' duration, that had resisted a three months' treatment with caustic, and for five weeks all attempts to overcome it by the surgeons of Guy's, so far removed in eight days, by the combined effects of the kali, and continued dilatation, as to admit the passage through it of an instrument, and thereby at once relieve the patient from the frightful load of sufferings that had for so many years oppressed him. But it needs no words of mine, or description of the patient, to enforce on the reader's mind

the aggravated nature of the case. The serious operation proposed for his relief by the surgeon, under whose care he was at Guy's, is a sufficient guarantee on this point.

The case I shall now adduce is one illustrative of the efficacy of continued pressure alone, when the circumstances of the case forbid the application of the kali.

"Avranches, La Manche, France, Nov. 15, 1846.

"Sir,

"I am very anxious, at the urgent recommendation of my friend, Dr. Hairby (with whom, I believe, you are acquainted), to place myself under your care.

"I have suffered for some time past from fistula in perinæo, and ought to lose no time in obtaining relief.

"May I beg you to inform me what your arrangements are for receiving patients, and whether it will be convenient for you to see me in a fortnight or three weeks, by which time I think I shall be strong enough to travel.

"I am, Sir, your obedient servant,

"J. M."

"Avranches, Dec. 6, 1846.

"Dear Sir,

"I am obliged by your letter of the 23rd November. I had hoped to be with you ere this, but have been laid up with an attack of rheumatism in my hips and loins. It is now much better, and I fully expect to be able to start on Saturday next, and, if I am lucky, to be in London on the following Monday, about mid-day.

"I hope that you will be able to receive me *in your house*, as it is in many respects most desirable; but if you have no vacancy at present, may I beg you to procure me a lodging as near you as possible.

"I shall bring my valet with me, who has been a most valuable, and at times, an indispensable nurse to me.

"Yours, very faithfully,

"J. M."

In accordance with arrangements made, the patient arrived at my house on December 16th, 1846.

Before giving an account of the deplorable condition he was in on his arrival, I shall give the history of his case, and its progress up to that time, his age being then 47.

It was twenty-five years before my seeing him, that he first experienced symptoms of stricture. They were not, however, very urgent, and for about twelve years they remained so slight, that in the interval, he did not think it necessary to obtain surgical assistance. About this period he had, at different times, two severe attacks of retention, for the relief of which a surgeon attempted to draw off the urine with a catheter, though without success. They were, however, relieved by the administration of opium and the use of hot baths. From this time the difficulty in urinating assumed so excessive and constant a character, as to convince him of the necessity of having recourse to measures for the removal of the stricture. Accordingly he came to London, and placed himself under the care of a surgeon, who, for the space of six weeks, made brief but unsuccessful attempts, on alternate days, to pass an instrument through the stricture. However, these attempts, unsuccessful as they were, enabled him to void his urine with less difficulty and pain than before.

In this state he returned home, and for a period of two years totally neglected all treatment, hunting and shooting all this time as though he had no disease. At

last he began to experience considerable uneasiness and pain in the perinæum. He also became subject to sudden and violent fits of rigors, amounting on some occasions to as many as three during the four-and-twenty hours, and causing, from the severity of the febrile symptoms and constitutional disturbance, prolonged attacks of delirium. Under medical treatment and the administration of the disulphate of quinine and opium, the attacks of rigors were mitigated in number and severity. He now resolved to submit to a regular course of operations for the removal of the stricture. These were continued for six months, only interrupted by occasional attacks of rigors. During the whole of this period, no bougie could be passed lower down the urethra, than four inches. Nevertheless, the patient, as on a former similar occasion, was able to void his urine better; and his general health was likewise improved.

He then suffered four months to elapse without adopting any further treatment, during which he remained pretty nearly in the same state. However, the attacks of rigors became once more both frequent and severe. At the same time, he remarked a slight swelling in the perinæum, and experienced, on urinating, great pain in that region. This swelling gradually increased, accompanied by attacks of rigors and such general constitutional disturbance, as to confine him to his bed, and to excite considerable alarm in the minds of his friends and medical attendant. At length, evident symptoms of suppuration appearing, it was determined to make an incision into the enlargement, on the right side of the perinæum. This operation was followed by a considerable discharge of pus; and on the patient's next urinating, the urine escaped freely by the opening. Shortly

after this, a large swelling appeared on the left side of the perinæum. This being opened, pus was discharged and urine escaped by it, as also by the opening on the right side. Thus, two fistulous openings were formed. After this, his health was somewhat improved, the difficulty of passing his water by the natural channel, had, however, augmented, occasioning the much larger portion of it to escape by the fistulous openings. In this state he remained for about a year, without having recourse to surgical treatment, though subject all this time to frequent attacks of rigors, which, for a time, confined him to his bed. He had, sometime before left England, and was now residing at Avranches, in Normandy. But, having no confidence in the local surgeons, he determined on going to Paris. There he placed himself under the care of an eminent French surgeon, to whom he had been recommended. Under this gentleman, who was surgeon to his Majesty the King of the French, he remained three months, during which time repeated attempts were made to pass instruments into the bladder. But, although they were passed down the urethra their whole length, and considerable force used, all these attempts proved abortive. In the meantime, the patient suffered the most excruciating pain, and had frequent attacks of rigors. Circumstances preventing his remaining any longer in Paris, he returned to Avranches. For some time after his return, he voided his urine much better than he had done previously to his going to Paris, and a much smaller quantity escaped by the fistulous openings. This amendment, however, was not of long duration. In urinating, all the former difficulty and pain gradually returned; and in the interval, the discharge of urine by the urethra diminished, as that by the openings

in the perinæum increased. Moreover, his sufferings were much aggravated by the successive formation of small abscesses in the perinæum and scrotum, by which, as by those previously formed, the urine escaped. At last, the indurations spread to such an extent, as to embrace the whole of the perinæum, and a great portion of the scrotum. Four or five years had now elapsed since he left Paris, during which time he had, with perverse obstinacy, refrained from seeking surgical advice; and the grave consequences, to be expected from this neglect, gradually developed themselves. The quantity of urine, passed through the urethra, decreased from day to day, until a far greater proportion of it was voided by the fistulous openings. These openings amounted to five in the perinæum, and four in the scrotum; thus making in all nine fistulous openings. The attacks of rigors were daily; and, to state in one concise sentence the dire amount of his sufferings, his life was one scene of unmitigated agony.

Deplorable as his condition now was, his sufferings did not stop there. He was doomed to have them aggravated by the extravasated urine penetrating to the left groin, where it caused a considerable swelling. The patient told me that, to give only a faint idea of the pain he henceforth experienced on urinating, would baffle all the power of language to describe. The intense pain was no longer confined to the region of the urethra, perinæum, and groin, but extended down the left thigh and leg to the sole of his foot. Reduced to this frightful state, and having no confidence in the French medical men of the place, the consolation he felt from a nephew of the distinguished Irish surgeon, Sir P. Crampton, visiting some friends at Avranches, may be more readily imagined than described.

This gentleman opened the swelling in the groin, besides kindly rendering other professional assistance to the patient. From this opening a large quantity of pus was discharged; and when he urinated the water flowed through it. His kind surgical friend, to whose skill and attention, he, in all probability, owed his life, could unfortunately not remain longer at Avranches; and so he was once more left to his own resources.

Previously to these events, he had been recommended by Dr. Hairby to visit London, and place himself under my care. Having now become seriously alarmed, he wrote to me the first of the preceding letters. Between it and the receipt of my reply, he was deprived of the use of the lower extremities, by a partial attack of paralysis. In consequence of this attack, he delayed his departure for England, hoping that it would subside. Disappointed in this hope, and determined at all hazards to make an attempt to reach me, he, accordingly, in spite of the difficulties and sufferings attending, in his deplorable state, so long a journey, set out, and succeeded in reaching my house on the evening of the 16th of December, as above stated; and he managed, with the assistance of his valet and a pair of crutches, to crawl into the house.

Such was the condition of the patient on his arrival. Upon examining him the following day, I found an enormous and somewhat pendulous tumour, occupying the whole of the perinæum and a part of the scrotum, and so large, as to prevent his closing his thighs. There was also a considerable swelling in the left groin, which extended nearly over half the inside of the thigh. The enlargement in the perinæum and scrotum, besides the nine large fistulous openings already mentioned, was perforated by innumerable small ones, from which there was

constant oozing of pus and urine, exhaling the most offensive odour. Superadded to these, were two large openings in the groin, discharging a mixture of pus and urine. Scarcely any urine passed by the natural passage, but escaped, almost exclusively, through the apertures in the perinæum, scrotum, and groin, and thence, whenever he urinated, ran down the insides of both thighs.

Upon examining the urethra with an instrument, I found it was only pervious, for an inch-and-a-half, to a flexible catheter, not so large in diameter as a good-sized straw.

A few days after his arrival, and before he had sufficiently, recovered from the fatigue of his journey, to admit of any local treatment towards the removal of the strictures, the swelling in the groin gradually extended, down the inner side of the thigh, to within two inches of the knee. There were now indications of a fresh formation of pus, accompanied by general constitutional disturbance, by convulsive twitches of the extremities, spasmodic affection of the chest, difficulty of breathing, and great nervous excitement. So severe were these symptoms, as to inspire me with very serious apprehensions for his life. The free administration of ammonia and opium checked and relieved these alarming symptoms; and, upon a free discharge of pus, both from the old openings and from a fresh one in the left thigh, they gradually subsided. For a month after his arrival, his general health prevented any treatment with a view to the cure of the strictures, beyond a few brief and unsuccessful attempts to pass instruments. At this time, his health and local state were so far improved by the administration of quinine and opium, the assiduous employment of fomentations, and the applications of linseed poultices mixed

with a small quantity of chloride of lime, as to enable me to turn my attention to the treatment of the strictures.

On a mature consideration of all the circumstances of this case (the exceedingly indurated condition of the urethra which, extending from its orifice to, and commingled with, the mass of induration existing in the scrotum and perinæum; the number of fistulous communications and openings between the perinæum, scrotum, groin, and the urethra) I determined on trusting entirely to prolonged dilatation with cat-gut bougies and flexible catheters.

I therefore passed down to the first stricture, situated at an inch and a half from the orifice, a cat-gut bougie, but made no attempt to pass it further, merely allowing it, at each operation, to press against the obstruction for upwards of an hour. By perseverance in this mode of treatment for a fortnight, three obstructions were successively removed, and an instrument could be passed down the urethra to the extent of four inches, where its progress was stopped by the original and principal stricture. On pressing an instrument against this obstruction, it was felt to be most firm, with a corresponding induration of the surrounding parts. Upon the point of an instrument being partially introduced into the stricture, it was grasped with great force; and when I attempted to withdraw it, it was held as if in a vice. On several subsequent occasions, cat-gut bougies were partially passed through the stricture, and allowed to remain therein for periods, varying from one to four hours. The patient now voided his urine much better; but, as the instruments had not penetrated the stricture any further than at first, I determined on keeping a cat-gut bougie continuously in it, for as long a period as the patient

could bear. Preparatory to my adopting this treatment, I administered an aperient over night. On the following morning, after its action had ceased, I gave an enema of forty drops of Squire's solution of the bi-meconate of morphine, and passed a cat-gut bougie into the stricture, where it was retained till the patient had occasion to void his urine. Half an hour after he had urinated, another cat-gut bougie was passed, and, like the first, retained there. In this treatment I steadily persevered thirty hours, the patient in the interval being kept under the influence of morphine, by the administration of an enema containing twenty drops of the above solution. At the expiration of this time, much larger bougies could be passed into the stricture, although none through it. The patient being now somewhat exhausted, I did not deem it prudent to continue the treatment any longer at that time. A good night's rest, however, was sufficient to remove all traces of exhaustion. He also voided his urine in a greatly improved stream, and much less escaped by the fistulous openings.

After an interval of four days, the same treatment was resumed for the space of twenty-four hours, the result of which was a marked improvement in voiding the urine, with scarcely any escaping by the unnatural openings. Still, no instrument could be passed through the stricture. After a period of five days, during which no attempts were made to pass an instrument, I succeeded in passing through the stricture a No. 2 silver catheter. After it had advanced an inch, its progress was stopped by another stricture, which resisting two or three attempts, I determined on fixing in it a flexible gum catheter, on the same plan as I had previously adopted with the cat-gut bougie. I employed the elastic catheter on this

occasion, in preference to the cat-gut bougie, in the hope that if it passed this obstruction, it would enter the bladder, in which case I could retain it a day or two, and thus insure the introduction of any instrument. The catheter was retained thirty hours, but did not pass beyond the stricture. The amendment, however, in the patient's urinating was again highly satisfactory. He voided his urine in a full and free stream, with a power, too, such as he had not experienced for very many years; whilst, at the same time, only a few drops escaped by the openings. Four days after the catheter had been withdrawn, I made an attempt to pass a silver catheter, and succeeded in doing so with perfect ease. Being unwilling to fix it in, I withdrew it, in the hope that I might now be able to pass a flexible one. But, from its flexibility, I could not direct its point over the different irregular protuberances, caused in the urethra by the indurations surrounding it, and I did not like to insert into it the wire, usually sold with the catheters, lest I should tear or otherwise injure the urethra.

I now contented myself with passing the silver catheter on alternate days, until one of a No. 5 size could pass with ease. I then firmly fixed a No. 5 flexible gum catheter on a steel stillet with a solid handle, thus giving the catheter the requisite firmness to direct it over the inequalities, caused in the canal by the surrounding indurations. Having passed this catheter, I left it in for forty-eight hours, then withdrew and replaced it by another of a larger size, which, after being kept in thirty hours, was withdrawn. From this time no urine escaped by any of the fistulous openings, and they rapidly healed.

The patient now learnt to pass the instruments himself. For nearly a month he continued, under my directions,

to pass one every second or third day, rubbing into the enlargements on the perinæum and scrotum a portion of ungt. iodinii comp. and thus reducing them, at least, to a third of their original size. At this time he passed his urine with the most perfect freedom; he improved in his general health rapidly, and gained flesh daily. A painful spasmodic affection of the rectum, with which he had been sadly afflicted during the whole course of his disease, likewise disappeared with the removal of the stricture.

On the 21st of March, 1847, he left my house on a visit to a friend, and returned in a week to stay with me a few days, before taking his final departure for the continent. I cannot give a better illustration of the completeness of the cure, than by stating, that I saw him, previously to his leaving me, ride a horse over a five-barred gate (to say nothing of hedges and ditches), in trying a hunter at Messrs. Masons' farm at Shepherd's Bush.

I have heard from him several times since he returned home, and he continues perfectly free from stricture. Writing to me on the 26th August, he says:— * * * * "I have manfully asserted the right of way into the bladder, and pass the largest catheter with certainty when I like; that is, at any rate, every third day. * * * * I am, yours very faithfully, J. M."

Mr. L., a highly respectable farmer, residing at ——, Essex, called on me in the month of July, 1844. He informed me that he had laboured under symptoms of stricture for the last twenty years, but that it was only within the last eleven he had first consulted a surgeon on his case. At this time the difficulty in his voiding urine, having increased to an alarming extent, he, by the advice

of a friend, came to London, to place himself under the care of Mr. ——, surgeon to —— hospital. This gentleman, after trying in vain to pass some common wax bougies, succeeded in introducing a No. 6 silver catheter into the bladder, though not without great difficulty, and the employment of so much force as to occasion him the greatest pain. Upon his first voiding urine, after this operation, he suffered considerable pain, and his water was mixed with blood. When he next attempted to urinate, he could not; but this retention, after lasting four hours, was suddenly relieved by the escape of some coagulated blood from the urethra. For some days subsequently, he experienced considerable difficulty in expelling his urine. On his next visit to Mr. ——, the same instrument was again passed without causing either bleeding or any great amount of pain. The patient continued his attendance on Mr. ——, once or twice a week, for a period of six weeks. But as no material improvement in voiding his urine had taken place, he discontinued his attendance altogether. However, the difficulty having in a short time become as great as ever, he resolved upon consulting Sir ——, who, at first attempted to pass a large silver instrument. Having failed in the attempt, which caused the patient great pain, he tried a smaller one, which he readily passed into the bladder. Sir —— then told the patient that the principal cause of the difficulty in expelling the urine arose from the bladder having lost the power of emptying itself. He, therefore, recommended him to pass a flexible catheter every night, in order to ensure the emptying of the bladder, at least once in the twenty-four hours, and to persevere in the use of the instrument till he could urinate naturally. The patient steadily pursued this treatment several months, with so much benefit, that, think-

ing himself perfectly cured, he relinquished the use of instruments altogether. However, in the course of a few months, the difficulty returned, which, gradually increasing, was at last succeeded by a sudden attack of total retention. In this emergency he sent for a neighbouring surgeon, who relieved him by the introduction of a catheter. After this relief, he continued to pass his urine, though with difficulty and pain; and at last he had another sudden attack of retention. A surgeon was again called in; and the patient was this time relieved by the passage of a bougie through the stricture into the bladder. As the surgeon was about to retire, the patient requested him to leave some bougies, under an apprehension that when he next had occasion to urinate, he should be unable to do so. His fears proved but too correct; and he relieved himself by passing a bougie without waiting for the surgeon. From this time he re-commenced passing instruments himself; and such was now his difficulty in urinating, and so irritable the state of his urethra, that he was often obliged to pass an instrument, four or five times, in the course of twenty-four hours. From this time he never ventured to leave home without an instrument.

In this miserable condition he remained for years, at one time passing a fair sized instrument, and at another hardly able to pass the smallest. At last he was unable to pass even the smallest. His urine now, constantly and involuntarily, dribbled from the passage; and he was only able to urinate by first passing an instrument down to the obstruction. After he had continued in this distressing state for some time, he had a sudden attack of swelled testicle—the right. By the directions of Mr. ——, a retired surgeon, leeches were applied, hot baths used, &c.,&c. Under the employment of these means, the more acute symptoms

of inflammation were reduced, without, however, removing the enlargement of the testicle. The patient now remarked that a swelling was forming in the perinæum, which gradually increased; and he felt there extreme pain whenever he voided his urine. This pain became so excruciating, that, every time he passed his water, he was obliged to lie down for half an hour. His surgical friend and attendant now insisted on his going to London, and placing himself, without further loss of time, under the immediate care of some hospital surgeon, enforcing this advice by declaring that none other was competent to treat such a case. He accordingly placed himself under the care of Mr. ——, surgeon to one of the eastern metropolitan hospitals. This gentleman, on seeing him, immediately ordered a dozen leeches to the swelled testicle, without proposing any remedy for the enlargement in the perinæum, which (strange to say) he appears not to have detected, and which (still more strange) the patient never mentioned to him. The day after the application of the leeches, Mr. —— made an unsuccessful attempt to pass a sound; and for a period of a fortnight, the attempts were repeated on alternate days, with equal want of success. In the meantime, the swelling in the perinæum, which had continued to increase, now became on pressure exceedingly tender, and the skin, covering it, was likewise inflamed. Mr. ——'s attention being now drawn to the state of the perinæum, he at once made an opening into the tumour with a lancet. A slight discharge of pus ensued; and, when next the patient passed his water, a portion of it escaped through the opening. Attempts to pass instruments were continued for another fortnight, but without success. Mr. —— now said that a false passage existed, and that the patient, pre-

viously to his visit to London, must have made it himself.

The patient, alarmed at this unexpected intelligence, and disheartened, at the same time, at the complete failure of all Mr. ——'s endeavours to pass instruments, determined on again consulting Sir ——, from whose former advice he had derived so much benefit.

On this occasion, Sir —— having passed a flexible instrument its whole length up the urethra, and apparently into the bladder, pronounced the case one of no difficulty or importance. At the next visit, Sir —— made an unsuccessful attempt to pass a metallic instrument; whereupon he remarked that the case was more serious than he had anticipated. At his third visit, the patient directed Sir ——'s attention to the state of the perinæum, which he had not detected Immediately on seeing it, he said it must be opened directly, and thereupon made a deep and free incision, upon which a fearful hæmorrhage ensued. When the bleeding had abated, and Sir —— had inserted some lint into the wound, he told the patient he might take his departure; and, in reply to his inquiry, as to whether he should remain in town, or return home, he was told "*he might please himself.*" On leaving Sir ——, he walked, in this state, to a cab-stand, where, entering a cab, he directed the driver to the Eastern Counties Railway station. During the ride to the station, as also on his journey down to —— station (the nearest to his home), he suffered the most intense pain. On arriving at the latter place, a neighbouring farmer, who chanced to be there, offered him a seat in his vehicle; and having accepted the offer, he was driven to within a mile of his own home, to which, notwithstanding the pain he suffered,

he actually walked across the fields. After a disturbed night, he arose the following morning, and withdrew the lint from the wound, which emitted a most offensive odour. For four days, during which he remained at home, he merely bathed the parts frequently with warm water. He then waited again on Sir ——, who, as before, made an unsuccessful attempt to pass an instrument. From this time, for a period of between two and three months, he came regularly to London twice a week, to Sir ——, who, on each visit, which never exceeded five minutes, made hasty and unsuccessful attempts to overcome the stricture, some of which were made with considerable force, and occasioned great pain. Notwithstanding these repeated failures, the patient certainly made water better, the urine, however, continuing to escape by the perinæum. Sir —— now said that it would be necessary to enlarge the fistulous opening in the perinæum, and advised him to return home, in order to make arrangements for his remaining some time in town.

On the patient getting home, he happened, by what is termed mere chance, to hear of a gentleman, residing in his neighbourhood, whom I had attended, with success, after other surgeons had failed in affording him relief. He waited on him, and, by his advice, he determined on seeing me. In accordance with this resolution, he called on me, and after giving me the foregoing outline of his case and treatment, he requested my opinion thereon. Considering that he might still be looked upon as a patient of Sir ——, and telling him I thought the proposed operation necessary, I advised him to remain under his care; to take lodgings in town, and submit to whatever so experienced and eminent a surgeon should propose. Thanking me,

and expressing his determination to follow my advice, he departed; and it was not till the 16th of the following October, that I again saw him.

On that day he called, and informed me that in accordance with my advice, he had taken lodgings near Sir ——, who, as soon as he had done so, came there, accompanied by Mr. ——, and performed the operation he had suggested. From the patient's account, it appears to have been a dissection of the fistulous opening, and to have occupied nearly fifteen minutes in the performance. Four days afterwards, by the employment of considerable force, a catheter was passed through the stricture into the bladder; upon which some hæmorrhage followed. On the next visit, all attempts to pass the instrument proved fruitless, though great force was employed, which caused the patient such agony as to compel him to request, in the most urgent terms, that they might be discontinued. On the withdrawal of the catheter, profuse hæmorrhage took place. As Sir —— was preparing to leave the house, the patient's daughter, who had heard her father's groans, asked his opinion of the case: to whom he replied, "*it was a dreadful one.*" On the next visit, Sir —— passed a catheter into the bladder, but not until he had used considerable force, causing, as on a former occasion, intense pain, and a slight bleeding. For a period of three weeks instruments were passed at intervals of two or three days; but never without the employment of force, and a proportionate amount of pain. There was also, invariably, at each operation, more or less bleeding. The water, however, passed more freely; yet so large a quantity continued to escape by the fistulous openings, as to compel him, whenever he urinated, to hold a large sponge to

the opening, to prevent the wetting of his clothes by the urine.

He now returned home, continuing, however, to come up regularly, twice a week, to Sir ——, who, as regularly, passed an instrument into the bladder, though he was always obliged to employ more or less force, before it could be made to pass beyond the original obstruction. Indeed, it appeared to the patient that, in the interval between the operations, the stricture became impervious to instruments, and that a passage was again only made, as at first, by the extreme force Sir —— had employed; and that, consequently, although instruments passed into the bladder, they afforded him (introduced in such a manner) no prospect of permanent benefit. In short, the instrument was passed by sheer manual force, and not from any improvement in the stricture. An opportunity of testing the correctness of this opinion was soon afforded him by the absence of Sir —— on one occasion that he called at his house. When Mr. —— (the gentleman who accompanied Sir —— on his performing the operation mentioned above), attempted to pass an instrument, using only such an amount of pressure as he could prudently employ, he failed. This satisfied the patient that no amendment was occurring from the treatment: he, however, continued his attendance till the 16th of October. On that day, Sir —— appeared to have still greater difficulty in passing the instrument through the stricture; greater force was in consequence employed; greater pain at the same time inflicted; and a more profuse bleeding from the urethra, than at any former period, followed the withdrawal of the instrument. Utterly disgusted and disheartened at this result of three months' treatment, he

determined on withdrawing himself from Sir ——'s care, and placing himself under mine. He accordingly called on me, to request that I would undertake the management of his case, stating, at the same time, the above particulars.

I felt that, under these painful circumstances, I could not object to comply with his request; and the only condition I deemed it necessary to make was, that he should come to London, and take lodgings as near me as possible. This, at first, he was disinclined to do; but on my telling him that, unless he followed my advice in this respect, I would not attend him, he promised to do as I wished. After he had established himself in lodgings, close to my residence, I proceeded to examine his urethra. I found a severe and firm stricture at the bulb, through which I could not pass an instrument. I also ascertained the existence of a false passage, commencing just anterior to the stricture, and continued into the space between the urethra and the rectum, into which an instrument could be passed, and its point, upon examination per anum, be felt pressing on the rectum.

Having ascertained these particulars, I determined to rely on the treatment by dilatation with cat-gut bougies. Accordingly, about an hour before passing an instrument, I administered an opiate enema. At the expiration of the hour, I carefully and gently passed down to the stricture a No. 2 cat-gut bougie; and as soon as I felt it grasped, I desisted from all further attempts to make it advance, allowing it to remain about an hour. But as I found, during the treatment, the patient capable of bearing it, I gradually increased the time, until I was able to retain (as I was on two occasions) the instrument for more than twenty-four hours. This method was steadily persevered in for six weeks, the operations never producing even the

slightest bleeding, and the patient experiencing scarcely any pain, and, compared with what he had endured, I might say none. He now voided urine much better, and there was considerably less irritability in the parts. In the intermediate time, two or three unsuccessful attempts had been made to pass an instrument through the stricture. As the employment of force was, however, carefully avoided, the only pain they occasioned arose from the instrument having, in spite of my utmost care, slipped now and then into the false passage. At this time, in consequence of the evident improvement in the symptoms, I made another attempt, and succeeded in passing a No. 4 silver catheter into the bladder, and retained it there twenty-four hours. At the expiration of this time, it was withdrawn, and replaced by a flexible one of a larger size, which was likewise retained twenty-four hours, and then taken out. From this time I continued to pass instruments with ease; the patient voided his urine freely, and without pain, although a portion still escaped through the perinæal opening. He now returned home, in every way greatly relieved by the treatment I had adopted, having been rather more than two months in London. For some months he passed instruments himself, and occasionally called upon me to introduce them. The principal, indeed, the sole, inconvenience he now experienced, arose from the water still escaping by the fistulous opening. Thus relieved in a great measure from his distressing malady, he most unaccountably neglected himself, and the urethra, in consequence, gradually re-contracted to such an extent, that, on November 1, 1845, no instrument could be passed. Alarmed at the effects of his inconsiderateness, he came to me, and requested me to receive him, this time, in my house, in order that he might be under my

immediate care. After an interval of three weeks, during which the same treatment, as on the previous occasion, had been adopted, I once more passed an instrument into the bladder. The patient went home for a few days, having previously expressed a wish that some means should be tried to cause the fistulous openings to heal. On his return, and conformably to his expressed wish, flexible catheters were retained, with scarcely any intermission, for three weeks, in the hope that their retention, by preventing the escape of urine into the fistulous openings, would cause them to heal. This failing, it struck me, that the more firm pressure, that would result from the prolonged retention of silver catheters, might probably stimulate the parts, and cause the openings to heal. I accordingly recommended him, as he could not remain at that time, to return to my house as soon as possible, and allow me to make the experiment. On his subsequently returning to me, I adhered to this treatment, with only a few days intermission, from the 17th December, 1845, to January 24, 1846, when he returned home, the fistulous openings having completely healed. From this time, he occasionally passed instruments himself, when fancying, one night as he was going to bed, that he did not expel his water freely, he determined to pass an instrument. With this view, he went down stairs for a bottle of oil he had in a cupboard. On his reaching his bed-room, he dipped the catheter into the bottle, and proceeded to introduce it. He immediately experienced, even before he got to the seat of the stricture, unusual pain and difficulty. He consequently withdrew the instrument, thinking he had not oiled it sufficiently. Having again dipped it into the bottle, he passed it down to the stricture, in spite of the unusual difficulty and the great pain he suffered in the attempt. Finding it would not pass

beyond the region of the stricture, and that its presence excited violent spasms and severe pain, he suddenly bethought himself that he might have made some mistake in the bottle. He instantly withdrew the instrument, and (frightful to say!) on examination, he found the bottle contained *strong oil of vitriol!!*

He suffered, as may be supposed, frightful agony during the remainder of the night; and on the following morning the orifice of the urethra was so swollen as to be nearly closed. On its lips being opened, the canal, as far as its course could be seen, presented the appearance observed after a caustic application.

By the employment of proper means, the effects of this unfortunate mistake were restricted to an increased difficulty in urinating, without, however, producing retention. When all the more acute irritation had subsided, I found that, instead of a No. 7 silver catheter passing, I could only, and that with great difficulty, introduce a No. 2. Sometime after this, I recommended the patient to retain the catheters; but as he disliked the confinement it would occasion, he refused to follow my advice. Therefore the only treatment adopted was the occasional introduction of instruments.

He called on me, Sept. 18, 1847, at which time he could pass a No. 6 silver instrument. He voided his urine with perfect freedom; and the fistulous openings remained healed. His general health had so improved that he was able to perform all the active duties of his occupation. He now rides on horseback; and, in fine, is (the dangers he has passed and his sexagenarian age being considered) as hale as most men.

It would be a work of supererogation, after the instances I have just stated, were I to have recourse to further proofs to show the vast superiority, which the

careful and prolonged method of dilatation, I employ myself, has over the hasty and violent attempts at dilatation, generally practised. The two last cases cannot fail to carry conviction to every mind, as to the superiority of prolonged dilatation, even without the aid (as in the first of them) of the potassa fusa. At the same time, the results of all three cannot fail (when the means of treatment are rationally carried out), to establish the correctness of my opinion, as to the possibility of successfully treating the most inveterate and apparently hopeless cases, and this, too, when the surgeon has to contend as much against the effects of previous mistreatment, as of disease. Indeed, it is rarely from the disease, however serious it may be, that the great complications arise, with which we have to contend. Though strictures may have existed for years, have occasioned extreme pain in the interval, and may be of great extent, yet, instead of being mistreated, if left to pursue their own unimpeded course, they yield to *rational* treatment with a rapidity which appears truly astonishing to the patient, as also to the inexperienced surgeon. I cannot do better here than relate a case, as it contains not only an illustration of my last remark, but presents a very strong contrast to the foregoing cases.

On the 20th May, 1844, I received the subjoined letter:—

"Somersetshire, May 19, 1844.

"Dear Sir,

"Having lately purchased and perused your book on '*Strictures of the Urethra*,' and as I am myself suffering from, I fear, extensive and long-standing disease in that canal, I am desirous of consulting you. I do not now enter into particulars, or give you a history of the case, as

I prefer doing that when we meet. My principal object, therefore, in now addressing you, is to ascertain, whether or not, I can have an interview with you on some early morning, and what hour will be most suitable to your convenience?

"I will now only further add, that should you be of opinion you can afford me *only partial relief*, I have made up my mind to place myself under your management and care. Hoping that you will oblige me with an immediate answer,

"I remain, dear Sir,

"Your very obedient and humble servant,

"J. M.,

"Surgeon."

Having, in reply, informed Mr. M. when he could see me, I shortly afterwards received a visit from him. At our interview I learnt, that, in hunting, about seventeen years before, he had struck his perinæum against the pummel of his saddle, and at the same time injured one of his testicles. This accident brought on an attack of "swelled testicle," and also occasioned considerable tumefaction in the perinæum. He had, at this time, a slight discharge from the urethra. Under proper treatment, the more urgent symptoms resulting from this accident had been removed. But there remained, ever after, a slight induration in the perinæum, which resisted every means adopted to cause its absorption.

It was about ten years previous to his calling on me, that he first remarked a gradually increasing difficulty in urinating. Notwithstanding this discovery, he most unaccountably neglected to adopt proper treatment for arresting the progress of the disease. Not content with the

performance of his arduous professional duties, as a general practitioner in a large agricultural district, on horse-back, in all seasons, and at all hours both day and night, he not unfrequently followed the hounds.

The natural consequences of his neglect and imprudence did not fail to become, in time, alarmingly apparent. The difficulty in expelling the urine increased to a frightful degree, whilst the act itself occasioned, both in the urethra and perinæum, intense pain. In this state, he attempted to pass a bougie; but, from the great excitement and morbid sensibility existing in the urethra, he suffered such extreme pain in the attempt, as to compel him, even before he met with any material impediment, to withdraw the instrument. From this time forth, he made no attempt to relieve himself; and, in consequence, the difficulty and pain in urinating rapidly and alarmingly increased. To complete the catalogue of his sufferings, he became subject to attacks of rigors, which, after continuing with great intensity for hours together, used to leave him in an alarming state of exhaustion. Indeed, on more than one occasion, the state of collapse they left him in was so extreme, as to induce some of his medical friends in the neighbourhood, who had met together in consultation, to entertain, on those occasions, the greatest doubts of his ultimate recovery. Still, in the interval between these attacks, he neglected to obtain surgical assistance for the relief of his stricture. The reason of this extraordinary neglect was his belief, that there was no surgeon in the country who had sufficient experience to be able to treat his case successfully. At the same time, the recollection of the violence he had witnessed, whilst a pupil, on the part of some metropolitan surgeons, in passing instruments in similar cases, inspired him with

so much dread that, although he had no doubts as to the experience and skill of many London surgeons, yet he feared to apply to them, from an apprehension of their employing a similar degree of force in their treatment of his case. Thus, though perfectly sensible that he was hourly getting worse, and that he must ultimately either submit to proper treatment, or sink into a premature grave, yet, continually haunted by this fear of violence, he postponed, from day to day, seeking surgical assistance. He now, in addition to his local sufferings, and the attacks of rigors, became subject to sudden, frequent, and violent convulsive twitchings of the arms.

His general health had now become so impaired, that he could no longer pursue his professional avocations. The induration, already mentioned as existing in the perinæum, had, in the meantime, so progressively increased, as to amount at last to a considerable tumour.

His condition, on my first seeing him, may be thus briefly described:—He had, both day and night, an incessant desire to urinate, and could only void his urine in drops, or in a very fine stream. Every act of micturition was accompanied by a violent scalding pain in the urethra, and in the tumour in the perinæum. He had constant attacks of rigors, which left him for days in a truly pitiable state of feebleness; and he was subject to frequent and painful spasmodic twitchings of his arms, which used to throw them suddenly up, as if they were exposed to an electric shock. He was, moreover, greatly emaciated; and, in fine, his whole appearance gave every indication of his having been the subject of prolonged and intense sufferings.

I at once strenuously advised him to lose no time, but make immediate arrangements for remaining in London,

and obtaining proper treatment. Finding, however, in the course of our conversation that he laboured under great anxiety lest I should employ force in my treatment, and that he entertained great doubts as to the effects of applying the potassa fusa to the stricture, I advised him, as he resided close to two former patients of mine—Admiral ——, and his son, Captain ——, and knew them personally, to call on them and ask them what they thought of the character and efficacy of my treatment? He accordingly returned home, and lost no time in calling on Captain ——. On the following day, he wrote to me, saying, that that gentleman had completely removed all his doubts and fears, and that he would at once come up to London, and place himself under my care, if I could receive him in my house. As I could not, unfortunately, receive him at that time, he postponed his journey to town till I had a vacancy in my house.

Some time thus elapsed in consequence of my not being able to receive him, in the course of which, he wrote to me two or three times, to say that he was much worse, and that the swelling in the perinæum was getting larger and more painful than ever. However, on the 16th of July, I received a communication by post, requesting me, immediately on its receipt, to proceed by train to Bath, and thence by post to ——, as Mr. M. was dangerously ill. Of course, I started at once, and reached his residence about five o'clock the same afternoon. On seeing him, I learnt that he had had rigors, and was labouring under spasmodic twitchings of the extremities. The swelling in the perinæum had greatly enlarged, and there was, besides, a considerable tumefaction, extending up the left groin and over the pubes towards the right. The tongue was foul, and there was

every symptom of great constitutional disturbance. The convulsive twitches were preceded by fits of violent gaping or yawning.

Apprehensive that the increased swelling and tumefaction were the results of extravasation of urine, I at once made a free incision into the tumour in the perinæum; but neither urine nor pus was discharged. However, as I felt convinced that one, or the other, was the occasion of the symptoms under which he laboured, I made another deep incision, upon which there was a profuse discharge of the most putrid and offensive green-coloured pus I had ever seen in the course of my life. So indescribably offensive was its odour, that both the medical gentleman, who was with him on my arrival, and myself, were obliged to drink some brandy to allay the nausea we felt. After the operation, the patient remained in a state of great exhaustion, accompanied by frequent fits of yawning, and convulsive twitches of the extremities. I ordered him some pills composed of calomel and opium, with a mixture, containing ammonia sesquicarbonas and spt. ætheris sulp. comp., &c. &c.

Notwithstanding the relief which the evacuation of the pus must have afforded the system, and the regular administration of remedies for four-and-twenty hours, the fits of yawning, and the convulsive spasms of the extremities became more frequent and violent. The convulsions, too, were no longer confined to the extremities, but affected the whole body. Whilst, after each attack, the poor sufferer, although perfectly sensible, remained in a state of such complete exhaustion, that his pulse could scarcely be felt. In this state, a sudden yawn, followed by a harrowing exclamation, would escape him; after which, his body would appear rigid, and then it

would be thrown up from the bed, as if by some resistless power; and almost simultaneously, he would be attacked by violent convulsions. As the convulsion gradually subsided, there remained only slight twitches of the arms and legs. These attacks, after lasting from five to ten minutes, left the patient motionless and nearly pulseless, with his lower jaw dropped, and his breathing scarcely perceptible. After lying for some twenty or thirty minutes in this death-like stupor, the first signs he gave of returning animation consisted in a yawn so frightful, and in an exclamation so loud and thrillingly painful, as to defy description. After this, he quickly again became fearfully convulsed. At the expiration of thirty-six hours from my arrival, not only had no improvement taken place, but the attacks had become progressively more violent, and the intervals between them shorter. He himself had now no hope of his recovery, and, at his own request, the Holy Sacrament was administered to him by the amiable and exemplary clergyman of his parish.

As the mercury now affected his mouth, it was thought better not to continue it. I ordered him three grains of the quinæ disulphas, with a grain of opium, every three hours; the ammonia mixture to be continued, and hot bottles to be applied to the feet. Still the fits increased in frequency till they became nearly incessant, scarcely five minutes elapsing between their cessation and recommencement, and leaving the sufferer in such a state of exhaustion, that after they had ceased we were often, for some moments, doubtful whether or not he continued to live.

I had now been in unceasing attendance on him for more than eight-and-forty hours; and having but very

faint hopes, I left the sick room, and sought, in the cool night and the fresh air of the garden, that moral and physical relief I myself so much needed. There, undisturbed by the sight of the patient's fearful sufferings, and the deep grief of his relatives, I could calmly think over each point of the case. The result of my reflections was a strong and firm conviction that the convulsions arose from nervous irritation, and were perfectly free from any inflammatory action. In short, I felt an irresistible assurance that they were connected with that state of the system, by which, in less serious cases, attacks of rigors are occasioned, and that, therefore, the only treatment, that could afford any prospect of success, was the free administration of stimulants, conjointly with moderate doses of opium. In this view of the case it occurred to me, that brandy might be given with great advantage, though the state of his urethra seemed to forbid its administration lest it should produce a retention of urine. Whilst I remained in this state of doubt, I received a hasty summons to the sick room, as the patient was thought to be in articulo-mortis. Upon arriving there, I found him pulseless, his extremities cold, and, in short, apparently on the verge of a fatal collapse. I consequently at once called for brandy, and poured a wine glass of it down his throat. He rallied somewhat after this, but was quickly attacked with convulsions. Immediately, on these ceasing, I gave him more brandy. It was now midnight; and after every fit I continued, for two hours, to give him a portion of brandy. In place of hot bottles, I had his feet put into a mustard bath. At the expiration of the two hours, it was perfectly evident to all in attendance that the convulsions were less violent, and the intervals between them longer. Encouraged by

these results, I determined on remaining in close attendance on the patient, and on persevering in this line of treatment. By seven in the morning (the patient, having taken in the interval nearly two-thirds of a bottle of brandy) the convulsions had become comparatively trifling, and with much longer periods intervening between them. He also had obtained some sound sleep, and had so far rallied as to be able to converse. He informed us that, with the exception of a brief interval (just about the time the brandy had been first given), he had been perfectly sensible of every occurrence; but, at the same time, felt such an utter prostration as to be unable to make the slightest sign. During the next four-and-twenty hours, he continued steadily to improve, and, at the expiration of this time, the only symptom of convulsions was occasional spasmodic twitches of the extremities. These the disulphate of quina and opium pills completely removed in another twenty-four hours, by which time he was so well that I was able to leave him and return to London. I, however, returned to him, according to arrangement, in three days, when I found him so well as to be able to sit up for a few hours. I remained with him till the following morning, and arranged with him, before I left, that, as soon as he was able to bear the journey, he should come up to town, and remain at my house during the treatment of the stricture. I should have stated, that the brandy had not the effect of increasing his difficulty in urinating, for, strange as it may appear, he voided urine more easily the following day than he had done for a long period.

In the course of a fortnight he was able to come up to London. Upon examining the urethra with a bougie, I found a stricture about three inches down the canal. I

could not pass any instrument beyond it—not even the smallest. After one or two ineffectual attempts, at different times, I was able, at last, to pass an exceedingly small flexible catheter through this stricture to a second at the bulb of the urethra, and, after a little hesitation, I was able to pass it into the bladder.

As nothing particular or unusual attended the progress of this case, I need only say, that, by the occasional application of the kali, and the retention of catheters, for periods varying from twenty-four to forty-eight hours, the strictures were completely removed in the course of eight weeks, and the patient was entirely freed from the load of suffering and misery he had so long laboured under.

He left my care on the 24th of September, 1844; and it was not till October the 8th, 1845, that I heard directly from him, although I had, in the interval, heard of him from other patients of mine, who knew him. On that day I received a letter from him, and such portions of it, as relate to his case, I now subjoin. After offering some excuses for his negligence in not having written before, he says:—"But in accordance with the old saying, that 'no news is good news,' I can, as regards myself, verify it,—the induration in the perinæum *is vanished,* and has been for many months; and as I have taken rather rough horse exercise, to wit, on the old pony, I think, and hope, I have reason to expect I shall not look upon its like again. As regards the urethra, I find no difficulty in making, or in passing, water; and, if I except the *most trifling* purulent discharge occurring, about *once a month,* and then only lasting a day or so, I should say, I *was* quite well. My motto is, 'let well alone.' I have therefore not introduced a bougie for a long, long time,

nor taken any medicine, excepting an occasional dose of colocynth and blue pill. * * * * From what —— told me, I fear you have had many difficulties to contend with in Mr. L——'s case.* * * * * * When I reflect upon what I may term the butchering treatment he had previously undergone, I cannot be *too* thankful that I *fell* into better, more scientific, and lenient hands. I trust, however, under your superior treatment, you will be able to rectify the mischief."

I paid him a visit towards the end of September last, to enjoy a few days' shooting, when he informed me that he was perfectly well, only occasionally, as a precautionary measure, passing an instrument.

The rapid cure of this severe case is an incontestable proof of the facility with which even most severe and long protracted strictures may be removed, provided the surgeon has not to contend with the irritations and complications, so frequently produced by violence in passing instruments. The case of the patient from Normandy is also another remarkable one to the same effect. The other cases, complicated as they were by previous *irrational* treatment, afford, in like manner, striking evidence of what may be accomplished by patience and gentle treatment, even in cases apparently the most hopeless.

From the conclusive testimony I have here presented to the notice of the profession, I would fain hope, as I most ardently and sincerely wish, that such members of it, as have hitherto thought they acted *secundum artem* (I am

* The preceding case is here alluded to, with which he became acquainted, from Mr. L—— having given him, whilst he was waiting to see me, the details of his case.

unwilling to put a harsh construction on their conduct), in employing force in the treatment of strictures, would for ever abandon a course as irrational, as it is eminently cruel, and substitute for it the rational, I might almost say the infallible, method of gentleness and patience. And I have that entire and unhesitating confidence in the generous feelings of youth, as to induce me implicitly to trust, that the junior members of a profession, of which humanity is as essential an attribute as skill, will, on the perusal of these cases, not only reject, but turn away with absolute loathing from, the employment of violence in such cases.

With respect to the treatment of stricture by the retention of catheters, I would briefly remark, that, in cases where there exist great irritability, spasms, and general soreness of the urethra, the retention of a catheter, from twenty-four to forty-eight hours, would be of great advantage, and do more for the removal of these symptoms, than the strictest antiphlogistic treatment could accomplish in as many weeks. When, also, there is an aptness to bleeding in the stricture, or when there is any reason to suspect that the urethra has been torn by the injudicious use of instruments (with or without a false passage being formed), the retention of a catheter will greatly simplify the treatment, and expedite the patient's cure.

I need not detain the reader, by entering into minute details of the rules by which this treatment is regulated, as the cases interspersed in the body of the work, and those in the appendix, will afford him all the information he can require on this head. It was at first my intention to offer some observations on the application of the lunar caustic; but my personal experience in this remedy is so trifling,

having only had occasion to use it twice in my practice, that, upon due consideration, I have given up the idea. I do this the more readily, from feeling assured, that, if the surgeon would steadily and carefully carry out, singly, or in combination, the modes of treatment I have here recommended, he would have as little need, as inclination, to resort to methods, of which the favourable results are as problematical, as the treatment itself is evidently one of the legacies of an exploded system.

CASES.

CASE I.

An Impermeable Stricture of thirteen years' standing, with 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, came up to London for the purpose of consulting me, and having placed himself under my care, gave me the following account 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 about three weeks, 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 had so much increased, and I had become so unwell, 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 apericnts, 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 although I persevered in it and various other remedies, I never got free of the disease: in short, a gleet remained. About eight years after this (the discharge still continuing), I was 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 volume. 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 severely from hæmorrhage 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 hæmorrhage 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 myself on the bed, and applied cold water to the perinæum, holding a tumbler 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 advice, I sat in ice for some time. The hæmorrhage, 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 hæmorrhage 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 hæmorrhage. At Sir —— ——'s 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 hæmorrhage was less violent; and he came again at two in the morning, when the bleeding had nearly ceased. At six o'clock, the hæmorrhage 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 cat-gut 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 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 that I had 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 which I used. Years thus passed on, but brought with them no diminution of my sufferings; on the contrary, my malady grew upon me so much, 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 hæmorrhage upon the instrument touching the stricture. There was also 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 moral and physical energies were 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 hæmorrhage; the slightest pressure with the bougie being sufficient to cause bleeding. The hæmorrhage, 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 had been 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 the point of a good sized bougie could be now passed into the stricture, and that it was only prevented passing through 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 yet I in vain administered 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 to confirm this surmise, 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 mode of living, and I learnt from him that my suspicions were not groundless, and that he was in the habit of partaking very freely of the good things of this 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 admitted the force of my observations, and the injury which his imprudence was calculated to inflict on himself. He, consequently, promised me that, for the future, he would be more careful; and 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, as I had found that no means so quickly removed 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 then withdrew the instrument, and immediately passed, with perfect ease, a full-sized catheter. After this had been in some minutes, it was grasped tightly, by the recurrence of the spasm. I, therefore, determined upon leaving it in, as I had done with 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 frequently had been, during the preceding period, compelled to apply leeches to this tumour, in consequence of the strong tendency, evinced in it to assume an inflammatory character of the acute kind. A fortnight elapsed, before the irritation in the tumour had been sufficiently subdued, to allow of any operation on the urethra. At the expiration of this time, I attempted to pass an instrument, but

the spasms were 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 did not pass through. I felt it firmly grasped in the contraction, and I consequently determined on leaving it fixed in the stricture. At the same time, I ordered an anodyne enema, and directed the patient in an hour or so to attempt to pass the instrument. In six hours from this, he sent for me, and, upon my arrival, I found that 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 region. The inflammation, on this occasion, was so violent as quickly to terminate in suppuration. I, therefore, lost no time in opening the tumour, 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 irritation, resulting from the stricture in the urethra, extending to the cellular tissue around it, and then terminating in suppuration; as we sometimes see occur in cases of gonorrhœa, in which the inflammation is unusually violent. Had I not felt certain on this point, I should at once have made an opening in the tumour. In the mean time, the indurations in the penis had returned, and, in a week, I was obliged to make free incisions for the escape of the matter which had there formed. From this time, the patient continued to improve rapidly; the abscesses gradually healed; his general health was greatly improved; and 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 patient and myself, without causing him 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 that he had been under my care, 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, if it contained any errors, he might correct them:—

"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,

"F. B. Courtenay, Esq." "W. W., M.D.

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

CASE II.

Case of Stricture in the Urethra of ten years' duration, in which there had been extravasation of Urine, and Fistula, caused by forcing the stricture whilst the patient was suffering under an attack of retention of urine.

On the 16th May, 1841, I received the following letter from Mr. –, a surgeon, residing in a large provincial town in the west of England; and as it fully details the history of his case, the treatment which had been adopted, and the result up to the time of his consulting me, I shall give it verbatim.

" May 15th, 1841.

" SIR,

" After an attentive perusal of your work on '*Stricture of the Urethra*,' which I purchased a few weeks since, I cannot forbear writing to you on a subject, which has been a continual source of mental and bodily suffering to me, in a greater or less degree, for these ten years past. In the autumn, please God, I shall be enabled to go to London, and place myself under your care for cure: meanwhile, you may, perhaps, kindly advise me respecting the extreme *irritability* and *sensibility* of my urethra, after troubling you with an outline of my case. About thirteen years ago, I unfortunately contracted a gonorrhœa—my first deviation from the path of virtue. The primary symptoms were extremely severe, but from shame and youthful timidity, I concealed the cause of my illness, and allowed it to 'wear itself out,' which occupied nearly twelve months. At this time, 1829, I was apprenticed to the surgeons of —— County Hospital, and during five years I was scarcely ever entirely free from gonorrhœa or gleet. As far as I can recollect, it was in 1831 I first perceived symptoms of stricture. After a wine party, being attacked with a sudden spasm, I was unable to pass my urine, but the attack abated by a cathartic. I should state, I took little or no medicine for the gonorrhœa, beyond endeavouring to abate the primary inflammation; never being able to retain copaiba on the stomach, or any such remedies. I led a very gay life amongst other students, was often inebriated, and rode much on horseback, hunting, &c. Several attempts were from time to time made by our house surgeon, to pass a bougie; but the spasm was so great it was never got through,

until, on one occasion, when I was seized with retention, a small-sized catheter was introduced into the bladder. The pain I experienced at the least attempt to pass an instrument, from extreme sensibility of the urethra, made me shrink from the operation, and submit to the inconvenience of a contracted passage, at that time, I believe, wholly spasmodic. On any irregularity or excess, these symptoms increased, and occasionally produced complete retention, which none but the scientific and steady hand of Mr. W. Wickham, one of our hospital surgeons, could relieve by the introduction of the catheter, after the use of the hot bath. In 1834, I entered as perpetual pupil at Guy's: at this time I had difficulty in making water, with contracted stream; but, in the absence of the inflammation of a gonorrhœa, or debauch, felt no further inconvenience. Mr. ——, on one occasion, attempted to pass a bougie; but from extreme sensibility of the urethra, and nervous excitement, I was unable to submit to his perseverance. In November, 1835, I was seized with retention, after dining at a party the previous evening. At that time residing near Spring Gardens, I sent for Mr. ——, who immediately attended, and attempted to pass a large-sized catheter; but so great was the spasm, that his continued efforts of more than an hour were unavailing; and he directed me to go into a hot bath, where, in the *greatest agony*, my bladder was partially relieved.

"In April, 1836, another retention coming on, immediately after Mr. ——'s lecture, I again applied to him. He accompanied me to my rooms, near Guy's, and, after *lengthened perseverance*, introduced the catheter, and temporarily relieved me. I was obliged to have recourse to the catheter the following day. I then suffered from extreme irritability of the bladder and urethra, swelling of the perinæum, extending throughout the whole length of the penis, which the application of leeches, fomentations, &c., did not abate. These symptoms were accompanied by loss of appetite, fever, and great constitutional derangement. By the advice of Dr. A., who was requested to see me, I left town for Farnham, in Surrey, for the sake of recruiting my general health. On the following day, the swellings greatly increased, extending over the scrotum and penis; leeches, fomentations, and poultices afforded no relief; gangrene rapidly followed over the whole surface, and I was fast sinking under the care of the medical practitioner, at Farnham. Providentially, however, my kind friend, and late master, Mr. W. Wickham, of Winchester, was sent for; and to his judicious treatment I owe my life. He made an extensive incision on either side of the raphe, with the scalpel; whereupon, a quantity of purulent

matter, urine, and blood escaped, nearly *filling a large hand-basin.* The application of poultices brought away much more, and afforded me the greatest relief: but in so exhausted a state did Mr. Wickham leave me, as to give but little hopes to my friends. Mr. Wickham, at his next visit, found me in every respect better. From this time I gradually improved; but the urine flowed for some weeks through the incisions in the perinæum, attended with very great pain. I was now taken home to Winchester; catheters were introduced to relieve the stricture, and by their use the urine was made to flow through the proper channel, and the fistulous openings healed. On the whole, I was confined to my bed for two months. To you, Sir, I need make no remark, either as to the cause of the extravasation and abscess, after the introduction of the catheter by a surgeon of Guy's Hospital, or the subsequent treatment of the Farnham practitioner: from the limited experience of the latter, we cannot expect much. As my health improved, I occasionally had the catheter introduced by Mr. Wickham; but the agony which I had experienced in London from its introduction, and the pain which the same treatment still occasioned, were so great, that I had not firmness sufficient to enable me to persevere in it. The use of instruments was therefore discontinued; and, by attention to diet, and abstaining from all kinds of excesses, with the occasional use of the warm bath and aperients, the irritability of the urethra was diminished.

"From 1836, to April, 1839, I continued to experience difficulty in passing my urine, and had two or three attacks of retention, which, however, were relieved by the introduction of a very small flexible catheter, after the use of the hot bath.

"At this time, I had occasion to travel by mail, but was unable to get an inside seat. On getting down to urinate at Farnham, (singular to say, the scene of my former sufferings,) I was unable to do so, nor could the surgeons there introduce ever so small an instrument. The warm bath, and every other means, assiduously employed during the night, having failed, I was again conveyed to Winchester, where Mr. Wickham, after no little difficulty, succeeded in introducing a catheter. Next day I required it again, and the irritation of the bladder was excessive. A week I continued thus, when the violent symptoms abated, and the catheter having been left in the urethra for an hour, I made water in a better stream than for many months. In the September of the same year, I resumed the duties of my profession as visiting assistant in Hertfordshire; and here I was doomed to lay the founda-

tion of sufferings which I have ever since experienced, in a greater or less degree;—viz., rigors, great irritation of the urethra and bladder, with severe pain, as well as difficulty in making water. It was a very wet winter; and I was continually on horseback, in a marshy country, and subject, on returning home, to all the domestic privations of a *mean Scotchman*. In four months, I left this situation, with my whole system deranged; rigors for two or three hours at a time, during which I could scarcely keep myself in bed, besides a constant desire to pass my urine every five or ten minutes, the quantity voided at a time being very small, and its passage attended with the greatest pain. Baths and anodynes somewhat relieved me; but continual irritation and pain remain to this day.

"I now pass my urine with very great pain and difficulty, in a thread-like stream, the pain continuing for twenty minutes after micturition. I am obliged to use the water-closet when I want to make water, as the straining in doing so often causes the involuntary expulsion of the fæces. I take the plainest diet, totally abstaining from spirits and beer, and never exceeding one glass of wine, as the least excitement increases my sufferings, and any excess would assuredly produce retention, which, thank God, I have not had since the catheter was left in the urethra for some time, now two years since. I believe my stricture to be of the *mixed kind*, situated at the connexion of the bulbous with the membranous portion of the urethra. There is also a slight impediment at the neck of the bladder; likewise a hardness at the diseased part, with considerable tenderness, which, however, is lessened after the use of the hip bath, which I use once or twice a week. I take as little fluid as possible, and accustom myself to void my urine three times a day, periodically, although, I think, I never completely empty my bladder, unless under the influence of a purge, which is always attended with pain at the seat of the stricture, and at the glans penis. I have said, I believe my stricture to be of the mixed kind; but the spasmodic action being so great, I hope but a slight degree of permanency may accompany it, particularly as the pain and difficulty are increased by exposure to cold, and mental or bodily excitement; whilst they are lessened by sitting with the perinæum towards the fire, by my mind and body being free from any excitement, and by a relaxed state of the bowels. Smoking, I believe, to have a beneficial effect, by relaxing my system. But my life is one of continued anxiety, pain, and irritation. I dread each returning desire to micturate, from the pain and difficulty I experience; and when obliged, as I am occasionally, to use the chamber utensil at night, I perceive a floculent sediment deposited.

"The great source of anxiety and unhappiness, which I now feel, is from the continued irritation of the urethra, and the pain and difficulty at the time of passing my urine, and for some minutes after, notwithstanding the most scrupulous attention to my diet, and the avoidance of all exciting causes. Perhaps you will kindly suggest some medical treatment to abate these sufferings, which, had I even now the opportunity of availing myself of your skill, would render the introduction of an instrument, at this time, impossible. I must offer you many apologies for the length, as well as the unconnected style, of this account of my case, which is not drawn up with the accuracy that I was wont to observe when clinical clerk to Dr. A., some few years since. I have given you the correct particulars, and if you will favour me with a line of advice, it will be most gratefully received, and I shall have pleasure in giving you your fee. I intend to place myself under your care in the autumn, for I am convinced that, if my case admits of cure, your extensive experience in this *most afflicting* and important branch of surgery, will, under God's blessing, restore me to health and happiness. Your work has already afforded me bright hopes, for it relates the cure of cases similar to my own, and displays knowledge which could be attained only by the exclusive attention which you have given to 'strictures of the urethra.' If you will kindly consider *my* case at your leisure, and favour me with your advice, you will confer a very great kindness on,

"Sir,

"Yours, very obediently."

In answer to this communication, I recommended him to apply six leeches on the perinæum once a week for a month, to sit in a warm hip-bath every night at bed-time for half an hour, and, during that time, to keep up the temperature by the constant addition of hot water. In the morning, he was directed to foment the parts with warm water for fifteen minutes. He was not to drink anything but tea, barley-water, or linseed tea, and his diet was to be plain. The following pills were to be taken every night at bed-time, and their action on the bowels assisted, if necessary, by a mild dose of castor oil: ℞ piluli hydrargyri gr. ij. pulv. ipecacuanhæ gr. j. extract colocyn. comp. gr. v. extract hyoscyam. gr. iij. ℳ Ft. pilul, ij. I further ordered that, in case he was threatened or attacked with rigors, he was immediately to take three tablespoons-full of the following mixture every four hours: ℞ pulv.

ipecacuanhæ comp. ℈ij. liquor ammon. acet. ℥iij. syr. papav. alb. ℥ gr. mist. camphor. ℥ iv. gr. m Ft. mistura.

Such was the treatment I recommended; and I shall now quote its results from the patient's own notes and letters:—"From this treatment, the irritation of the urethra and bladder has greatly subsided, and I am very greatly relieved in every respect." "In July (he continues) I was in London for a day or two, and personally consulted Mr. Courtenay, who, with some difficulty, passed a very small-sized catheter into my bladder, with much less pain than I had ever before experienced. As I was not then able to remain in town, I could not avail myself of his plan of treatment." As my patient could not remain in town, I directed him to continue the treatment which I had at first recommended. On Oct. the 5th, I received from him the following letter:—

"Oct. 4th, 1841.

"DEAR SIR,

"I am induced again to trouble you respecting my continued painful disease. Since my interview with you in town, about two months since, I have strictly adhered to the treatment which you kindly recommended; and, although the irritation is considerably diminished by the application of leeches once a fortnight, the pills I take at night, and hip-bath, I am still a great sufferer at times, notwithstanding a rigid adherence to diet, &c. I think the size of the stream is increased, since you passed the catheter, although, you may remember, it was your smallest sized one, and that the next could not be passed (you may remember its being blocked up); but I have now a new symptom:—suddenly the stream stops, and, if my bladder be distended, a ropy secretion is forced from the urethra, and the urine again flows. At times, the pain in passing my urine is excessive, and a few drops of blood ooze out on my linen; afterwards, there is considerable discharge, but little or no sediment in the urine now; the perinæum is tender at the seat of the stricture; the thickening somewhat less. I believe your opinion on my case, when I saw you, was, that you might effect a cure in about six weeks or two months, when I could put myself under your immediate care. You mentioned to have had a gentleman, then in your house, a worse case, but that mine was a very bad one. Will you be so kind as to favour me with a line respecting my farther delaying the operation? Does a stricture ALONE generally produce such severe and *irritable*

symptoms? My life now is one of continued anxiety and pain; whilst the ease, with which you passed an instrument, compared with all other surgeons, and those, too, of hospitals, would give me hopes of ultimate recovery; for which blessing, under Providence, I should owe you an endless debt of gratitude. Your previous kind attention leads me again to ask your advice and further opinion, more particularly respecting the urgency of my waving every obstacle in obtaining your immediate personal attendance, by operations, &c., in London. With every apology for this lengthened intrusion on your time,

"I am, dear Sir,

"Yours truly and respectfully,

"J. G."

Upon receipt of this communication, I wrote to him, recommending him to come up to London as soon as possible. But he was not able to do so till the 22nd of March, 1842, having, up to that time, continued the treatment I had, at first, suggested. His notes then observe: "I called on Mr. Courtenay on the 22nd of March, 1842, when a somewhat larger catheter, than the one passed at my previous visit, was introduced into the bladder. At this time, although the irritation was much relieved, by the previous treatment, I suffered much, at times, could only make water in a very fine stream, and with great pain and difficulty. March 23rd, I applied nine leeches; 24th, Considerably less irritation and pain in making water; 26th, Mr. Courtenay administered an opiate enema, and applied the kali; a catheter was afterwards passed into the bladder, and left in the urethra. The operation caused me less pain than I could have imagined, and I passed a tolerably good night. The urine passes through the catheter. 27th, The urine flows both through the catheter and at its sides, with but little pain: I withdrew the catheter in the evening. 28th, Most agreeably surprised this morning at making water in a much larger stream than I had done for years, and with but little pain. 29th, Mr. Courtenay again applied the kali, and the next sized catheter was left in the bladder. Felt some pain and irritation towards evening. Mr. Courtenay called and gave me an opiate enema, which immediately relieved me, and I passed a comfortable night. 30th, The catheter remained in until this morning. 31st, I make water with almost as good a stream as I ever remember to have done, and with less pain. April 1st, Continue to make water in a good stream, although there is slight irritation of the urethra, with disposition to

chordee; applied eight leeches. 2nd, Irritation relieved; and I make water as well as I wish to do. 3rd, Continue to make water in a good stream, and with but little pain. 4th, The pain in making water has nearly left me, and I never remember making a better stream."

From this account of the patient's, it will be seen that his case had gone on in a most favourable manner, and that there was every prospect of a permanent cure. But, unfortunately, thinking himself well, he would not remain any longer in London, being anxious to return to his professional avocations, notwithstanding my most earnest remonstrance against the extreme folly of his returning home so soon, and my strong assurances, that if he did, he would certainly have a return of the stricture, or rather a relapse of the bad symptoms, as the stricture could not be said to be removed. This he would not believe, and therefore, obstinate and self-willed as he was, he returned home.

On the 3rd of June, 1842, I received a letter from my patient, and, after referring to matters unconnected with his case, he says: "Since I have returned from town, I have suffered none of that pain and irritation to which I had been a martyr for several years past. I feel as it were commencing a new life, and my friends tell me I look a different man. This last week, however, I have not made water in quite so large a stream, and I intend getting a medical friend to pass a catheter for me; I regret you are so far off, as I can scarcely reconcile myself to another hand after yours."

On the 25th of July, after referring to the case of a gentleman on whose behalf he had written to me, he thus writes: "A word or two, if you please, for myself. I have never suffered pain since my return from town, but my stream of water is much lessened, and I much need an instrument to be passed; but, as I before said, I am reluctant to allow any one to pass a bougie but yourself."

August 29th, 1842, he writes: "My stream has become very small, although I have no pain, as heretofore. I know I have but myself to thank for any return, and that I greatly abused your skill and kindness. I do not like to allow any one else to pass an instrument, for two reasons; first, because of the general want of knowledge in this branch of our profession; and secondly, lest the great relief I experienced from you, and which I everywhere talk of, should be impugned. I wish I were able to have another fortnight in London;

I would not again so trifle with your good advice, and my own interest."

December 18th, 1842: "I wish I could report favourably of my stricture. Thank God! I have, however, suffered no return of the pain and miserable symptoms which I had experienced before your kind attention. But my stream is very small; and any deviation from strict diet, or the neglect of warm bathing, and of your aperient pills, would, I am convinced, be followed by a retention of urine. Please God, as soon as I can afford the time, I will come up again to town, and not leave till I am cured."

I have detailed this case thus fully in the patient's own words. It affords, in the first place, conclusive evidence of all that I have so repeatedly had occasion to say, about the danger, which must ever result from forcing instruments through urethral obstructions. In the next, it affords striking and, I think, conclusive, evidence of the superiority of my mode of treatment: and, lastly, patients from the country may thereby acquire positive evidence of the folly, they are guilty of, in leaving off their treatment too soon, in order that they may return home a few weeks sooner.

With regard to the treatment of the "Hospital Surgeon," or the subsequent advice of the "Hospital Physician" to the patient to leave London in the state he was in, I shall merely remark, that it is a pity the first did not display more care and skill, and the second, more discrimination.

CASE III.

A Stricture of nineteen years' standing, accompanied by Disease of the Prostate Gland and Bladder, cured, after three surgeons had declared the case to be a hopeless one.

Major W. wrote to me from Exeter, about the 16th day of February, 1842, requesting my opinion as to the probability of my being able to effect a cure of his severe and long-standing strictures, should he come to London, and place himself under my care. I replied to his communication, that it was utterly impossible for me to form an opinion on

the subject, unless I examined the state of his urethra. He accordingly came to town on the 26th of February, when I learnt from him the following particulars of the origin, progress, and treatment of his disorder.

He stated, that he entered the army at the age of fourteen (his present age is fifty-four), and that, two years after, he contracted a severe gonorrhœa. From ignorance of the nature of this disease, and a mistaken feeling of delicacy, he refrained from applying to any medical man for his cure. The inflammatory symptoms of the disease appeared, from his account, to have been most *violent*, and his sufferings altogether exceedingly severe.

The disease raged with great violence for some months, but, at the expiration of a year, ceased of itself. For sixteen years from that time he remained perfectly well; but he had the misfortune to contract another gonorrhœa, as he was about to sail with some troops, in a crowded transport, for Gibraltar. During the voyage he was not able to attend to himself; but immediately, on his landing at that place, he sought the aid of a surgeon, and was easily cured. For two years from this time he had no reason to consider himself otherwise than perfectly well; when one day, at a dinner-party (he had in the mean time returned to England), he was suddenly seized with a violent shivering fit, and, at the same time, with an urgent desire to void his urine. This he could not immediately attempt to effect, as there were ladies present, and he did not like to leave the table whilst they remained. As soon, however, as they had retired, he left the table, and attempted to urinate; but, to his horror, he found it impossible to void even a drop of urine. After remaining some time, in the vain hope that he should soon be better, he ordered his carriage, and upon his return home, he immediately took a warm hip-bath, which afforded him partial relief.

The next day, experiencing considerable difficulty in expelling his urine, he sent for a surgeon, who at once relieved him by introducing an instrument.

This gentleman continued his attendance for a week, at the expiration of which he gave the Major some bougies, with directions to pass them himself every day for two months. As he was able by this means to void his urine freely, he thought himself cured, and discontinued the use of the instruments. About this time he married; and, for some years, he could not detect any symptoms of stricture. At length, he remarked, that his stream of urine was lessening in size, and continued

to diminish, till at last it became exceedingly small. In January, 1840, being suddenly seized with an attack of retention of urine, he immediately had recourse to a warm hip-bath, and sent for Mr. ——, a surgeon, residing at Exeter. The warm bath having, in the mean time, relieved the retention, Mr. —— therefore merely directed him to take a dose of castor oil, and use the warm bath again, if necessary. By these means he was enabled to void his urine, but not without great pain, and violent straining. Three days after this attack, as the urine was only voided in drops, or a fine thread-like stream, Mr. —— called in Mr. B., of Exeter, who attempted to introduce an intrument into the bladder, but failed. Two days after this, a second attempt was made, with the like result. After another interval of two days, a fresh attempt was made, and an instrument then passed.

The instrument was retained in the passage for a few minutes, and as it was withdrawn, it was felt to be firmly grasped by the stricture. After a lapse of a few days, it was again introduced, and, a third time, a few days later.

Upon this last occasion, however, the instrument was allowed to remain in upwards of half an hour, when the patient withdrew it himself, (the surgeon having left.) In doing so, he was obliged to use much force, in consequence of the tightness with which the instrument had been grasped by the stricture. This occurred early in the afternoon, and in the evening he was suddenly seized with an attack of rigors, which had so serious an effect on his general health, that it was necessary to suspend all operations for upwards of a fortnight. At the expiration of this period, the bougie was again passed; it was retained as before; and an attack of rigors, even more severe than the first, followed. This led to a further suspension of the treatment with the bougie; but, after some time, Mr. —— (the gentleman first consulted), made several unsuccessful attempts to pass the instrument, which were followed by attacks of rigors. In consequence of this want of success, and the severe attacks of rigors, the use of the bougie was not persisted in; and the patient was merely directed to use warm fomentations locally, and keep the bowels open by occasional doses of castor oil.

The urine was now, at all times, voided with great difficulty and pain; sometimes, with more difficulty and pain than at others. The desire to urinate was constant, both by day and night. In this state he continued without much alteration in his symptoms, and without seeking any further medical advice, till September, 1841, when another,

and, if possible, a more violent attack of retention occurred. He relieved himself, however, by the use of the hip-bath and opiate enemas, without calling in any surgeon.

Sometime after this he met the gentleman who had first attended him, and told him the treatment he had pursued, when Mr. —— remarked, that he had done perfectly right, and nothing else could be done for him. About this time the urine began to deposit a copious slimy mucus, which occasionally emitted a most offensive odour, and was tinged with blood. He remained in this state till Christmas day, 1841, when he was suddenly attacked with rigors, and had two more attacks during the following thirty-six hours. During the whole of this time he was only able to void his urine drop by drop, and with the most excruciating pain. For three days did he remain in this dreadful state, without sending for any medical assistance, as he deemed it useless. At length his sufferings became so great, that he again sent for the gentleman whom he had first called in, and who, upon his arrival, merely recommended a continuance of the warm baths, saline aperients, and opiate enemas. Two days after this, whilst straining to void the urine, a considerable quantity of blood was suddenly expelled from the passage; and, for forty-eight hours from this period, upon every attempt to urinate, considerable quantities of blood were voided. The pain, caused by passing the urine, became about this time intolerable; and he was obliged to use so much straining to expel it, as to force out some portion of the fæces, thus compelling him, whenever he attempted to urinate, to do so sitting over a close stool. The patient, now determined to consult some other surgeon, sent for Mr. M——, hoping he would try to relieve him by introducing an instrument. But, upon that gentleman hearing an account of the severe rigors which had been previously produced by the bougies, he declined doing so, saying that he would not make the attempt on any account. He, however, ordered some medicines, and continued his attendance for a short time, but without affording any relief to the patient. The gentleman, first consulted, was again requested to attend; and also he again called in Mr. B——. These gentlemen continued their attendance together for some time, declined, however, to make any further attempts to relieve him with instruments, notwithstanding his earnest entreaties to that effect, and contented themselves with prescribing the pariera brava, in decoction, and pills.

The patient, it is almost needless to say, derived no benefit from those remedies. The violence of the spasms, added to the constant pain he suffered, now induced him to have recourse to laudanum, to procure

temporary relief from his sufferings. These were often so great, that he would take sixty drops of it by the mouth, and at the same time inject the like quantity into the rectum. Now he could never void his urine without sitting in, or over, warm water; and even, by these means, he hardly ever voided more than a tablespoon-full at one time. I need hardly add, that his general health was most seriously impaired. In this state he came to London, to place himself under my care, though his medical attendants had characterised it as madness, declaring at the same time to his wife and family, that there was not any possibility of his being cured; but, on the contrary, every probability that, if attempts were made to effect his cure with instruments, the fatal termination, which they had anticipated to the case, would be hastened.

Such was the deplorable account which I received of this gentleman's sufferings. Upon examining the urethra with a bougie, I found a stricture about four inches and a half down the passage, through which it was impossible to pass any kind of instrument. The induration at this point was so great, that it could easily be felt, externally, on passing the finger along the course of the urethra. I next examined the prostate gland, by passing the finger up the rectum, and discovered it to be much enlarged, and exceedingly tender and painful on pressure. The bladder was very irritable; the desire to urinate, constant; and at night, notwithstanding his taking sixty drops of laudanum in a draught, and injecting an equal quantity up the rectum in an enema, he hardly ever obtained more than ten minutes' sleep at a time, so incessant was his desire to pass his water. The agony he experienced at each attempt was such, that his groans were truly alarming and distressing to hear. The urine deposited a copious, ropy, slimy mucus, which was occasionally tinged with blood.

The tongue was coated with a dry brown fur; the bowels were constipated, and the fæces exceedingly dark and offensive. The patient himself could hardly speak without trembling, and was altogether a truly pitiable object to behold. He was willing to submit to any mode of treatment, however severe, provided it afforded the slightest hope of relief. Indeed, he said he would rather run the risk of having his death hastened by any attempt towards his cure, than linger on in the never-ceasing agony and despair, to which the medical gentlemen in the country had consigned him.

I need not point out to the medical reader the formidable nature of this case; not so much, however, from the severity of the stricture

(though that of itself was bad enough) as from the palpable indications it afforded of extensive disease of the bladder and prostate gland. It is therefore hardly necessary to state, that I felt considerable anxiety in undertaking the case; which was not a little increased by the prognostications of the gentlemen who had been in attendance, as to the probable result of any attempts to make a passage to the bladder with instruments. This opinion I felt was likely to prove but too correct, when I took into consideration the state of the urinary organs,—with a severe stricture in the urethra, and serious disease of the bladder and prostate,—each alone, in all probability, sufficient to lead to a fatal termination, did it exist independently of the others, but rendered a thousandfold more dangerous by the combination of all three in one individual case. On the other hand, to be deterred by these fears from attempting his relief, was to condemn him at once to a lingering and agonizing death, as it was hopeless to expect that nature would aid him. With these feelings, I explained at once to the patient and his friends the difficulties of his case: first, the uncertainty of overcoming the stricture, and the dangers likely to arise from an attack of retention or of rigors; lastly, the apprehension, even if the stricture were removed, that the state of the bladder and prostate might lead to a fatal termination of the case. But as, on the one side, there was a chance of cure or relief, and, on the other, nothing but speedy and certain death, I resolved to make the attempt.

The great evil to be dreaded in the treatment of the stricture was attacks of rigors, such as the patient had before experienced when operated on; and I felt that, if I could by any means avert this accident, and prevent at the same time retention of urine, I should overcome half the difficulty in the removal of the stricture. To this end I determined to administer, an hour before each operation, an opiate enema, composed of sixty drops of Squire's solution of the meconate of morphia, to make the patient keep his bed before and after it, and to apply bottles of warm water to his feet till all danger of rigors was passed.

I commenced operation on the 1st of March. I applied the kali three times (with the precautions stated above) between that time and the 10th; and, in the last instance, on pressing against the stricture with a cat-gut bougie, I felt it yield, and the instrument passed through the obstruction. This was in the morning; towards the afternoon he had a slight rigor. In a few days he was well enough to submit to another operation; and I then passed a flexible gum catheter, about No. 3, with tolerable ease, into the bladder.

I now determined to retain the catheter: I was induced to do so, first, because I felt it rather tightly grasped by spasm; and, secondly, because feeling assured that the patient could not empty his bladder, I judged that the power which the retention of the instrument would give him of doing so, would go a great way towards relieving the irritability of that organ. The result proved the correctness of my views; for, the next day, I found that the patient had enjoyed a better night than he had passed for years before, and was improved in every respect. I withdrew the catheter, which was lying perfectly loose in the urethra, and immediately introduced another (No. 5), with more ease than I had, on the previous day, passed the smaller one. This was retained until the next day, when I withdrew it; and as some slight irritation had been caused in the urethra by the prolonged retention of the catheter, I did not re-introduce it. For the next three days, the patient remained perfectly quiet, only taking a mild dose of castor oil, and using warm fomentations to the parts. He now made water with perfect ease; and the only unfavourable symptom was the pain which he experienced upon ceasing to urinate. A No. 6 gum-elastic catheter was next passed, and retained, as before. On the following day, a No. 8 was introduced, and left in for twenty-four hours, when it was withdrawn. From this time till the 8th of April, when the full-sized instrument (a No. 10) could be passed, nothing occurred to interfere with my treatment, with the exception of two rather severe bilious attacks, attended with vomiting. The relief received by the patient will be shown by the following letter, which he addressed to me:—

"London, 8th April, 1842.

"My dear Mr. Courtenay,

"I have great pleasure in forwarding the accompanying, and only regret that instead of taking advantage of your liberality to reduce your proper fee, I had it not in my power to double it, since I am more indebted to you than I can express. Believe me, I shall ever retain a grateful sense of your kindness, and the tenderness of your treatment, and I pray that He who has so blessed your skill, to the cure of a most painful complaint, from which I have suffered for nineteen years, to the great injury of my health, will continue to favour you, to the relief of many sufferers. With the sincerest wishes for your welfare and increasing prosperity,

"I remain,

"F. B. Courtenay, Esq.,
"Surgeon."

"Most gratefully yours,
"J. W.

A few days after this, he was seized with another, and more severe, bilious attack, which was not perfectly removed for a fortnight. Fortunately, however, it did not cause any relapse in the stricture. He remained in town to the end of April, being detained by the expected arrival of a friend from India. At that time, he could himself pass a No. 10 flexible gum catheter, which I recommended him to do every night, previous to retiring to rest, in consequence of the state of the prostate. Indeed, I now adopted a similar line of treatment to that which I should have done in a case of enlarged prostate, where there had never existed any stricture.

On the 8th of May, I received the following letter from him :—

"Exeter, 7th May, 1842.

"My dear Mr. Courtenay,

"You will be glad to know that my general health is improved, though I cannot say that it is entirely restored; and as concerns my water-works, I can, upon the whole, make a favourable report. I regularly pass the flexible No. 10, and this, too, with perfect ease. I think I shall next week try the silver No. 9, for I am very anxious to be master of this instrument, as it will render me so independent. I urinate now, with a FULL and STRONG STREAM, but it is always followed, I am sorry to say, by severe pain, I suppose from the bladder, which I can never empty without the catheter. The urine is now light-coloured, but it is, occasionally, clouded; it does not, however, leave any, at least very little, deposit at the bottom of the utensil. Mr. —— (the gentleman who first attended) called upon me, and, I think, was astonished at my report—he certainly was struck with my improved and altered appearance. I found, by conversation with him, that Mr. —— had been beforehand with me in a favourable report of your skill and method of treatment, both of which, I am more than ever convinced, are very superior. I hope soon to be favoured with a few lines from you, when I hope you will send me my case, as treated by you, for I am as anxious as ever to make it known: this I owe in justice to others, and from gratitude to you.

"Yours, most sincerely,

"J. W."

From this, it will be seen, that the stricture was completely removed, and that the only unfavourable symptom that remained was the pain upon ceasing to urinate.

The patient was in London again in June, he being about to proceed

to New South Wales with his family. I had the pleasure of seeing him, and was highly gratified and astonished at his improved appearance. I saw him void his urine in a full, free stream, and, upon his ceasing, the pain was but slight, and the water of a perfectly natural appearance. He said, the only unpleasant symptoms he felt were, pain after passing water, though this was much less than it had been, and a desire, at night, to empty the bladder every second or third hour, whilst, in the day, the want was not oftener than is natural.

In consequence of his having left England, I have had no opportunity of seeing him afterwards. But I was induced to hope, from the improvement that had taken place in so short a time after the removal of the stricture, that, finally, he would suffer very little, if any, inconvenience from his disease. In this hope I was fully confirmed by a letter I received from him early in the spring of 1846, dated from Sydney, in which he informed me, he was perfectly well, and that he was expecting, shortly, an increase in his family, Mrs. W. being *enciente*.

CASE IV.

An impervious Stricture, of twenty-seven years' duration, successfully removed in ten weeks.

Mr. D., accompanied by his medical attendant, waited on me in the latter end of October, 1844, to ask me if I thought the application of the potassa fusa would be proper in his case, and, if so, to request me to undertake its treatment?

Upon examination, I ascertained the existence of an impervious stricture, at the junction of the bulbous and membraneous portions of the urethra. This operation occasioned a slight hæmorrhage. As I had given an opinion in favour of the potassa fusa, it was arranged that Mr. D. should take lodgings as near to me as possible. When he had carried out this arrangement, he gave me the full particulars of his case, from its commencement, up to the time of my seeing him.

About twenty-seven years before, he had a sudden and severe attack of rigors, which was succeeded by a total retention of urine. He thereupon sent for his usual medical attendant, who, on his arrival, attempted, without success, to pass an instrument into the bladder. On this failure, some medicines were prescribed, which had the effect of enabling the patient to void his urine. At this time, the latter was so exceedingly ill, that it was two weeks before he could leave his bed, and three more, before he entirely recovered. He could assign no other cause for the attacks of rigors, and the retention, than this: that ten years before, whilst climbing over some palings, he had struck his perinæum so violently against them, as to have caused him immediately, and for some time afterwards, great pain in that region, together with considerable soreness in the urethra. He told me he never had any venereal affection.

After this attack, though he became sensible that he did not void his urine in a natural manner, he, nevertheless, neglected to obtain any surgical assistance. In this way years elapsed; sometimes, for months together, he would urinate with comparative ease; at other times, he had sudden attacks of rigors, and retention of urine, or, at all events, greatly increased difficulty in urinating. During these attacks, which lasted for weeks, he was invariably confined to his bed, and attended by a medical man, who contented himself with administering to him medicines, but never, either at that time, or subsequently, suggested the adoption of proper treatment for the removal of the stricture.

About three years before my seeing the patient, he had changed his residence, and his medical attendant. This gentleman gave him some bougies, with the recommendation that he should try to pass them himself. This he attempted to do on various occasions, but could never succeed.

The difficulty in urinating had now become so excessive, that he could only void small quantities at a time, and that *guttatim*. The attacks of rigors, too, were almost daily; and, as a natural consequence, his general health was seriously impaired.

In this painful state, he applied to another surgeon, who resided in his immediate vicinity. This gentleman (a young man just commencing practice), with rare modesty, and as rare honesty, at once told him, as soon as he had ascertained the serious extent of the disease, that his experience in the treatment of strictures was so slight, that he did not deem himself competent to undertake the treatment of the case;

and he recommended him to apply to a gentleman, who, he said, had more experience than himself. The patient accordingly applied to the gentleman who had been thus recommended, and remained under his care for two months. During that time, repeated attempts were made to pass instruments through the strictures, but without success. On some occasions these operations caused bleeding, but never to any alarming extent, as the surgeon was very gentle, and careful, in his treatment. In the intervening time, the patient had frequent attacks of rigors.

Mr. D. happening, about this time, to hear, through a mutual friend, that Mr. L.* had been under my care, called on that gentleman. In consequence of this interview, he procured my former work on stricture, took it home with him, and, after reading it, placed it in the hands of his medical man, and requested his opinion as to the propriety of a consultation with me. This gentleman, after a few days' consideration, was pleased, not only to express his approbation of my views, but at once, and with great disinterestedness, to recommend the patient to place himself under my exclusive care. They afterwards visited me together. Such was the past history of the case.

When I first saw this patient, he could only void his urine in drops. He was at the same time in constant pain, and never, on any occasion, was able to pass sufficient urine to relieve his urgent wants. The consequence was, that he was obliged to rise every hour during the night, whilst the agony he experienced on voiding his urine was so great, as to compel him frequently to remain up half the night. The attacks of rigors were unremitting, and his urine was loaded with a profuse muco-purulent discharge, highly ammoniacal, and emitting a most fœtid odour.

On his taking lodgings in the same house with Mr. L., I began the treatment of the case with occasional applications of the potassa fusa. As soon as I was able, by these means, to insert the point of a cat-gut bougie in the stricture, I administered opiate enemas, and retained the instrument in the grasp of the stricture, for periods varying from one to four hours. By this treatment, I was able, after he had been under my care for a month, to pass a No. 3 silver catheter into the bladder, from whence escaped nearly a chamber-pot full of offensive urine, mixed with a muco-purulent discharge, tinged with blood. The next day, he returned home for a day or two, on matters of business. On the day

* The Case mentioned, page 177.

after his arrival at home, he had an alarming attack of rigors; and it was two weeks before he was sufficiently well to return to his lodgings in town, in order to resume the treatment.

On my now attempting to pass the same catheter as before, I found the stricture had become again impervious to instruments. However, after a fortnight's steady perseverance in our previous mode of treatment, I was again able to pass a No. 3 silver catheter. I thereupon fixed it in, and, after retaining it for twenty-four hours, withdrew it, and passed a flexible gum catheter, which I also retained for a similar period.

No further difficulty was experienced in the successful treatment of the case; and the patient, after having been, in all, fourteen weeks under my care, was able, as I was myself, to pass, with perfect ease, a full-sized instrument into the bladder.

I should remark here, that it was a considerable time after the strictures had become pervious to instruments, before the bladder recovered the power of completely expelling its contents. Thus, on many occasions, after the patient had voided about a pint of urine, I immediately passed a catheter, and drew off another pint. For this reason I always operated on him with a catheter; and, whilst the muco-purulent secretion remained, I washed the bladder, after the urine had been expelled, by injecting into it warm water, always allowing a small quantity of it to remain therein. I can strongly recommend the adoption of this last practice in all similar cases.

After the patient had left my care, I did not see him again till Nov. 13, 1847. He then informed me, that he continued perfectly well in every respect; and, indeed, his improved appearance spoke most favourably, as to his general health. He said, that, for twelve months, after he had left my care, he had regularly passed bougies; but that, after that time, finding himself perfectly free from every symptom of his old malady, he had ceased doing so, and, notwithstanding, continued as well as when he had passed instruments.

Whilst congratulating him on his complete restoration, I did not fail to recommend him, in the most urgent terms, to pass his instruments occasionally, and thereby secure himself against every possibility of a relapse.

CASE V.

"Newcastle-on-Tyne, September 27, 1843.

"SIR,

"Having been tormented, upwards of seventeen years, with strictures of the urethra, and their many concomitant annoyances, I have, after a careful perusal of your work on their cure, *almost* made up my mind to submit myself to your tender mercies. I have been poked by some of the most eminent men, and have even submitted to the operation of cutting (which, by-the-bye, nearly killed me), but all without effect: and here I am, worse than ever.

"I passed a wax bougie, No. 2, about ten days ago, and have been suffering ever since from irritation and a partial retention of water. However, my object in writing is, to ask your advice as to my mode of proceeding. I expect to get leave of absence about the 10th of October; and, if convenient to you to take me in hand about that time, would go straight to London. I see you occasionally have your patients residing with you: be so good as to let me know if you could so accommodate me?

"I am, Sir,

"Your obedient servant,

"* * * *

"Captain in Her Majesty's Service."

In the course of the following October, Capt. ——, having obtained leave of absence, arrived in London, and took up his residence with me.

On examination of the urethra, I found that he had two strictures—one about three inches, and the other four-and-a-half inches from the external orifice. The urethra was extremely irritable, not only at the seat of the strictures, but throughout its whole extent. The first stricture was that which had been cut, and this, ever since the operation, had been far more irritable and troublesome than it had been previously. I learnt, from the patient, that the division of the stricture was attended by severe pain at the time of the operation, and that, when he next had occasion to urinate, the agony he endured, on the water passing over the divided stricture, was beyond anything he could have imagined. To give any idea, he said, of the intense pain he suffered, was to compare it to a red-hot iron, or molten lead, being

passed along the canal He had, afterwards, a violent attack of rigors, succeeded by a total loss of power in the lower extremities; and, in short, such were its effects on his general health, that it was nearly three months before he entirely recovered.

With respect to the treatment of the eminent surgeon already alluded to, it appears to have been confined to the usual five minutes hasty attempts to pass instruments,—sometimes with, and sometimes without, success.

It is not necessary to enter into the details of all the sufferings and annoyances he had experienced during the previous seventeen years. Suffice it to say, that he was never free from them, and often suffered severely from attacks of retention and rigors—the latter always accompanied by violent vomiting.

The treatment I adopted was, the occasional application of the potassa fusa, and retention of catheters for periods, varying from twenty-four to forty-eight hours. At the expiration of nearly three months, during which this treatment was continued, a full-sized bougie could be passed. In the intermediate time, the patient had very violent attacks of rigors, with great derangement of the digestive organs. I was, in consequence, often obliged to suspend the local treatment for a week or ten days, in order to attend to his general health; and this, of course, materially protracted the cure. I would remark, that, at the commencement of the treatment, the second stricture was the most *contracted;* the first, the most *tender to the pressure* of the *bougie.* In the course of the treatment, the second stricture, although the more contracted of the two, as already said, yielded to the potassa fusa more readily than the first; and whilst, at the end of the treatment, an instrument could pass with ease through the second, it never passed through the first without some difficulty, and always occasioned more or less pain.

Twelve months after the patient's leaving my care, he came again to London, in consequence of a partial relapse. He then informed me, that the irritation of the urethra, where the stricture had been cut, had never entirely ceased; but, on the contrary, had gradually increased, and, at length, had appeared to excite the return of a stricture at the seat of the second contraction. After about a month's treatment, he was again much better, and left my care. In the early part of the year 1847, he was again obliged to place himself under my care, and, after a month or six weeks' treatment, he was relieved, as he had been before. That the relief will be more than temporary, I much doubt. Upon

comparing this case with the results of some of a much worse description, as regards the relief the patient had obtained from my method of cure, I think it shows both its superiority, and, at the same time, the exceedingly mischievous character of the cutting treatment.

CASE VI.

Stricture of many years' duration, accompanied by Hæmorrhage from the Urethra, cured in six weeks.

Major H——, of the Hon. East India Company's service, called to consult me, Nov. , 1841. He informed me that he had, for many years, laboured under stricture, which, upon his return to England, some years ago, was cured, as he thought, by the common bougie; but it re-appeared, shortly after his return to India. On coming to England again, in the spring of the present year, he immediately placed himself under the care of Mr. ——, one of the surgeons to —— Hospital, in London. This gentleman treated the case with the common bougie, under the use of which the stricture was gradually dilated; and the case seemed to be progressing favourably, when, one day, the patient, happening to be later than usual in his visit to Mr. ——'s house, he found that gentleman, with his hat on, just upon the point of going out. Immediately, on seeing the patient, he exclaimed, "Oh! you are just in time; come, fall in." He then took up an instrument in a hurry, and, as soon as the patient "*had fallen in*," attempted to pass it quickly, and, by using some force, succeeded in doing so. But the patient endured dreadful pain, and felt as though the passage had been torn. Upon the withdrawal of the instrument, the urethra bled most profusely; the patient felt a degree of pain that he had never before experienced from the operation; and he could not help expressing his alarm to Mr. ——, who, however, assured him that no mischief had been done, and that the bleeding would relieve the stricture, and do good, rather than harm. He then coolly said, "Come, march, I am going out." Upon this, the Major left the house, and attempted to walk home; but the agony which he endured was so great, that, to use his own expression, he could only manage to

creep along. Before he had got far from Mr. ——'s house, that gentleman overtook him, and exclaimed, "How slow you walk, I would beat you at a race," and walked briskly on, apparently totally unconscious of the suffering depicted on his unfortunate patient's face. As the Major had taken up his residence near to Mr. ——, he, fortunately, had not far to go to reach his home. Upon arriving there, he felt so ill, that he at once went to bed; and, upon undressing, found his shirt covered with blood. At the next occasion of his attempting to urinate after the operation, he could not void beyond a few drops; and, as they passed, he felt the most intolerable scalding and pain. A short time after this, he was seized with rigors; but, as he had never heard of this complication of stricture, he thought that it had not anything to do with that complaint, but arose from cold. He then got rapidly worse, and Mr. —— was sent for. This gentleman visited him, and prescribed for him such remedies as he deemed necessary. This attack was so severe, that it was a fortnight before the Major was able to visit Mr. —— again at his house, in order to continue the treatment. At the expiration of that time, he went to Mr. ——'s, intending to submit to the necessary operations, but he no sooner entered the room and saw the bougie, than he became so agitated and nervous, that he declared he could not have an instrument passed; and Mr. ——, who could not avoid seeing that he was not in a state to be operated on, then said, "I see you are not able to submit to an operation to-day, therefore call again in a few days." The patient said he felt so nervous at the very sight of a bougie, that he thought that, if Mr. —— approved of it, he should like to discontinue the treatment for some time until he felt himself stronger. Mr. —— then said, "Well, perhaps it is as well, and you had better go out of town to recruit your general health, and as soon as you are better, return to me, and we will see if we can't cure the stricture." This the Major promised to do, and they parted, Mr. —— making use of the following strange remark, "Mind you come again to me when you return; but I think you will not." The patient assured him he would, and, when he made the promise, he fully intended to keep it, though subsequent events prevented his doing so; and Mr. —— was, consequently, right in his conjecture, that he should never see him again.

Shortly after this, Major H. went to Germany with his lady, to visit her family, and, whilst there, happened, strangely enough, to hear of the first edition of my first work, though he could not then obtain a copy. He made a note, however, of it, and, immediately on his return to

England, purchased it. In perusing it, he was much struck with the observations on rigors, and now, for the first time, obtained a notion of the true cause and nature of the attack, which he had experienced after the bougie was so carelessly used. This, naturally enough, determined him not again to consult Mr. ——, as he had, up to this time, intended; and, as he knew no other medical man, he called upon me. Having learnt these particulars, and further, that, since his leaving England, he had experienced several attacks of retention and slight rigors, I proceeded to examine the urethra, and discovered a stricture at the junction of the bulbous and membraneous portions of the urinary canal. I could pass through it, with tolerable ease, a bougie of the size of No. 4. Upon withdrawing it, I felt it grasped with much force, and the patient immediately said, "Oh! I shall now have my attack of retention and rigors. This has always been the case since the force was used," and, true enough, he had an attack.

Major H. having expressed his wish to place himself under my care, it was arranged that he and his lady should take up their residence with me, as they could not obtain lodgings near where the Major could have the advantage of warm hip-baths, which I had told him would be necessary. In a few days, they were comfortably settled, and the treatment commenced. But, as nothing material occurred during the treatment, I shall merely state, that the mode adopted was the occasional application of the kali to the stricture, and the occasional retention of the catheter for twenty-four hours, to overcome the spasmodic graspings already alluded to. At the expiration of six weeks from his placing himself under my care, he left my house perfectly well. This is the gentleman, to whom Mr. K. (Case VIII.) refers, as having seen, prior to placing himself under my care.

CASE VII.

Stricture of twelve years' duration cured in six weeks.

Captain E., of the Royal Navy, called on the 12th of July, 1841, to consult me on the state of his urethra. He informed me that for the last twelve years he had experienced more or less difficulty in expelling his urine; and that, on one occasion, after exposure to cold and rain,

he had an attack of retention of urine, which was only relieved by the introduction of a catheter.

In 1831, he consulted the late Mr. Vance, who, after some little difficulty, succeeded in passing an instrument through the stricture; but, as the Captain, at this time, was obliged to sail for the East Indies, he could not remain under Mr. Vance's care. Mr. Vance, therefore, gave him some flexible gum bougies, with directions to pass them from time to time. The patient did so, occasionally, for upwards of two years. But the difficulty which he experienced in passing them, and the pain he suffered at each operation (added to a feeling of carelessness), led to his discontinuing the use of the instruments; and, from that time until he saw me, he had done nothing to procure relief. He now passed his water in an exceedingly fine stream, and, sometimes, only in drops. He had a constant desire to do so, both night and day. The straining to void the urine was very great, though not attended with much pain.

Upon examination, I found a stricture at the junction of the bulbous and membraneous portions of the urethra, which was perfectly impervious to any instrument. I recommended him to have the kali applied, which he consented to; and it was determined, as he was anxious to return into the country as quickly as possible, that, in order to be more immediately under my care, he should take up his abode at my house.

In the course of the following week I applied the kali twice. At the second application I felt the instrument pass through the stricture. A few hours after this, he had a severe attack of rigors, which was attended, for some days, with much constitutional disturbance. Upon the next examination, I passed a No. 3 silver bougie, with ease, into the bladder. From this time till he left London, on the 18th of Aug., his cure progressed most favourably, and without one unpleasant symptom. At the time of his leaving, he could himself pass a No. 12 metallic bougie with perfect ease.

This patient dined with me February 17, 1843, and told me that he was as well as ever he had been in his life. He passed the instrument I had given him (a No. 12) once in every two months, to see that all was right, as he expressed himself.

CASE VIII.

An impervious Stricture, of twenty years' duration, in which upwards of one hundred and fifty bougies and catheters had been unsuccessfully employed, and the kali applied by two medical gentlemen upwards of thirty times, with the like result, finally cured by a combination of the treatment by the kali and catheter.

"In the year 1826, when with my regiment at Jaulnah, on the Madras presidency, I first perceived a difficulty in making water; and being at the time in a bad state of health, I obtained a medical certificate to Europe. Shortly after my arrival in England, my general health was much improved; but the difficulty in voiding my urine having increased, I applied to a surgeon, who attempted to pass an instrument, but without success. Several attempts were subsequently made; but no description of bougie or catheter could be introduced; and having on one occasion suffered most severely from the introduction of a wax bougie, which the surgeon believed had penetrated the stricture, but which, on its withdrawal, was found to have twisted and over-lapped itself, I declined any further interference, as I was at that time able to make water, although in a very small stream, and had not then suffered from retention.

"In the year 1829, the urethra having gradually become more irritable, I was suddenly attacked with inflammation at the neck of the bladder, which caused me to attempt to make water, sixty or seventy times in twelve hours, and I was only enabled, with the most intense suffering, to pass mucus mixed with a few drops of urine. From this attack I was completely relieved in the course of ten days or a fortnight, by the application of leeches, warm fomentations, diluent drink, &c.

"I then applied to the late Dr. Courtenay, who afforded me considerable relief, and succeeded in passing a No. 4 bougie into the bladder. When this was accomplished, I considered that I could, with care and attention, complete the cure myself. My subsequent sufferings have, however, fully convinced me how erroneous was such an impression.

"From this period (1829) to 1839, I was accustomed to pass a No. 4 elastic bougie, which I had no great difficulty in doing, once in the course of a month or six weeks. About this time, however, its introduction was generally attended with spasm, causing partial retention of

urine, and not unfrequently rigors. This induced me to apply to Dr. A., who recommended, as my health was so greatly impaired by the severe sufferings arising from the introduction of instruments, that their use should, for a time, be suspended. Consequently, a course of constitutional treatment was recommended, and pursued for about six weeks; when, my health being considered sufficiently re-established to justify an attempt to treat the local complaint, a catheter was introduced down to the stricture; but all efforts to pass it into the bladder were unavailing. Dr. A. therefore suggested that the kali should be applied, and for several weeks that treatment was adopted without any perceptible progress having been made. During this period I was frequently attacked with retention and rigors, from which I suffered most severely; and finding that I had derived no benefit, I was induced to place myself under the care of Mr. B., an hospital surgeon of great eminence and experience. I continued for upwards of six weeks under the care of this gentleman, who, after two or three attempts to pass an instrument, was so apprehensive that permanent retention would ensue, that he was unfortunately induced to attempt to force the stricture with a metallic sound. The attempt failed, and was succeeded by syncope, hæmorrhage, and most severe rigors. On the following morning, a considerable enlargement appeared in the perinæum, attended with increased pain and difficulty in making water. This enlargement continued for some days to increase in size, with every appearance of ending in suppuration; but by the application of leeches, warm baths, fomentations, quietude in bed, and the subsequent use of mercurial ointment, it became, to a certain degree, absorbed, leaving, however, a considerable induration and thickening, extending through the whole length of the perinæum. I then determined, so soon as I should be sufficiently recovered to travel, to proceed to London to consult the late Sir Astley Cooper. This I was enabled to do in about five weeks; when, calling at Sir Astley's, I found that he had that morning left London. I then proceeded, with my brother (a surgeon of some experience), to the house of Mr. L., one of the most eminent, if not the first, of the metropolitan surgeons. This gentleman, after an attentive examination and conference, suggested that a catheter should be introduced and left in the bladder, which he considered might be effected after the swelling in the perinæum had subsided. But as this appeared to us a mere repetition of the treatment by force, which had already been tried, and had produced such lamentable results, even in the hands of a very competent surgeon, my brother and myself felt convinced that such a plan was absolutely impracticable, and I then

determined to place myself under the charge of Mr. C., a surgeon with whose practice my brother was conversant, having been a dresser under him at St. —— Hospital. Three times a week, for six weeks, did this gentleman attempt to pass an instrument, but on no one occasion could he succeed; and it was quite evident that not the slightest progress had been made at the end of the period referred to; although, as the instruments used were of the smallest dimensions, and no force employed, no unpleasant results followed. Nevertheless, the prospects held out by this gentleman were very disheartening, as he stated his opinion that, at no subsequent period of my life, even after he had succeeded in passing an instrument, should I be enabled to pass one exceeding Nos. 5 or 6 in size, in consequence of the extensive chronic thickening and induration surrounding the urethra. I now decided upon consulting Mr. D., who, I was informed, had considerable experience in the use of the kali; I did—and attended him about twice a week for five weeks, when I again suffered most acutely, on one occasion, after a bougie, armed with the kali, had been introduced. On its passage, I felt it jump, as if it had caught in the lacunæ, and so stated my opinion. A small quantity of coagulated blood followed its withdrawal; and on my attempting to make water, the pain was intolerable, and the penis swollen as if it would burst. I was shortly afterwards seized with cold shiverings, to that extent, that in less than five minutes I could scarcely hold a cup to my lips. The cold stage was succeeded by burning fever, attended with such intense pain in my joints and loins, that I almost prayed to be released from my sufferings by death. This paroxysm was followed by perspiration so profuse, that even the bed and blankets were saturated with moisture. On the following morning, I sent for Mr. D., who assured me that I had no cause for alarm, and that he attributed my sufferings to the urine passing over that portion of the urethra, to which the kali had been applied. I experienced three or four more attacks of rigors, during the twenty-four hours after this operation, and was, of course, unable to attend Mr. D. till a week or ten days afterwards, when he again commenced operations. Finding, however, that I was obtaining no relief, and that the treatment adopted was precisely similar to that I experienced under Dr. A., I determined to return home. Shortly after my return, I succeeded in passing a very small wax bougie, and subsequently made the attempt every four or five days. I was not always, however, enabled to pass the smallest size, and the attempts were frequently followed by partial retention, with disposition to rigors. The bougie, when introduced, was as firmly grasped as if held by a vice, and I never could introduce an instrument of larger

dimensions. In this manner I struggled on for some months, when the strictures again became impassable, and I suffered severely from retention and rigors. This induced me to proceed into Devonshire, to Mr. E., a surgeon, said to have been eminently successful in the treatment of stricture by a mild and efficacious plan, peculiarly his own. This gentleman made several attempts to introduce his instrument, and although in my humble opinion his catheter was an improvement, and possibly might be efficacious in recent cases, still in the chronic form that my stricture had assumed, I deemed it hopeless, and therefore returned home.

" My general health was now becoming seriously impaired, and I almost began to despair of its ever being restored. I suffered more or less every day from retention, and I was seldom able to make water, on rising in the morning, excepting by drops. This difficulty continued until twelve or one o'clock, when it would partially cease.

" The condition of my urine was most unhealthy, and highly ammoniacal, and I frequently passed lithate of ammonia in considerable quantities, accompanied by a mucous deposit. These salts were passed with extreme pain and difficulty, occasionally causing a stoppage, which created great mental anxiety, as retention from such a cause was much more alarming than that arising from spasm, which might be relieved by the use of warm baths and opiates. Fortunately, about this period, General I., with whom I was intimate, and who was aware of my sufferings, called upon me, with Major H., a patient of Mr. Courtenay's. We compared our symptoms and sufferings, and found them to be similar, with this material exception, that *his were past, mine present.* Many of my professional friends have assured me, that I know more about stricture than most of the profession. '*Experientia docet,*' and sad experience mine has been. Most rigidly did I examine Major H. as to Mr. Courtenay's capabilities, '*modus operandi,*' &c. &c. All his replies were satisfactory, and his appearance fully confirmed his assertions; for he appeared in robust health. After this, General I. almost exacted a promise from me, that I would proceed to London, and place myself under Mr. Courtenay's care. My own feelings were quite in accordance with his; nevertheless, I had a brother in the profession, and numerous professional friends, most of whom wished me once more to consult some hospital surgeon. My brother, however, having now perused Mr. Courtenay's work, sanctioned my placing myself under his care, provided that after an interview and consultation with him, he should consider the treatment, Mr. Courtenay might

recommend, calculated to effect my cure. We consequently called upon him together; and, after a long conference and consultation, my brother not only sanctioned my so doing, but strongly advised it.

"Having now detailed my case up to the time when I placed myself under Mr. Courtenay's charge, I shall leave him to describe the extent of my malady, and the treatment adopted by him for its relief. The result of that treatment, however, I must state, has been wonderful (a strong term, I admit), but when I consider the little comparative suffering I have undergone (never having had a decided attack of rigors, or suffered from retention), I can scarcely deem it inappropriate. I cannot attribute my cure to the application of the kali alone, which in other hands had failed, but rather to the happy combination with it of the operative dexterity and judicious medical treatment displayed by Mr. Courtenay. From the opportunities I have had of forming an opinion of the skill and dexterity of many surgeons in the use of urethral instruments, I think I may, without exaggeration, state that I never met with one, who could for a moment compete with Mr. Courtenay in this respect. At the same time, it will be but justice to these gentlemen to remark, that I imagine few, if any one of them, can have had such opportunities of acquiring the dexterity which Mr. Courtenay displays, and which he could, of course, have obtained only by great practice."

This gentleman has above so fully detailed the progress of his case, that it will not be necessary for me to enter into any particulars, previous to his placing himself entirely under my care, which he did on the 16th of July, after two or three consultations on my part with his brother and himself.

At my first examination, I found he was labouring under a most severe stricture, at the junction of the bulbous and membraneous portions of the urethra, which was perfectly impervious to any instrument. The water was, at all times, voided with great pain and difficulty, especially in the morning, when it frequently occurred, that for hours none could be voided, or, if so, only in drops. The perinæum was indurated through the whole course of the urethra. The glans penis had the whitened and indurated appearance, generally seen in bad cases of stricture, especially where there has been partial extravasation of urine, or laceration of the urethra; and at the orifice of the urethra (as is generally remarked in severe cases of stricture) there was an induration, giving the appearance of a ring round the opening, which contracted

the outlet. His general health was much impaired; in short, there was the greatest possible constitutional and local irritation.

After a most mature consideration of all the circumstances of his case, I came to the conclusion that I could not, do better than refrain from all operations for the present, and adopt a similar line of treatment to that, which had been so successful in Mr. G.'s case. (See Case II.) I accordingly ordered leeches, baths, gentle aperients, &c., as related in that instance.

Under this treatment, his general health improved considerably, and the local irritation was much less. The induration and swelling in the perinæum were diminished; and, in short, he was better in every respect. This plan was commenced on the 16th of July, and continued up to the 5th of August. I then determined to commence operations with the bougie and the kali; and as, during the whole subsequent treatment, not one unfavourable symptom occurred, I need only state, that on the 22nd of Sept., after fifteen applications of the kali, I succeeded in passing, with perfect ease, a larger bougie, than had ever been passed since the commencement of the disease. A few days after this, I passed, with perfect ease, a No. 8 metallic bougie. At the next operation, I experienced some difficulty in doing so, and there was considerable bleeding after the instrument was withdrawn. In consequence of this, I determined, for the future, to use only the flexible gum catheter, thinking that the induration and remaining swelling in the perinæum, by pressing upon the urinary canal, rather altered its curve, and, consequently, rendered the introduction of a solid and unyielding instrument more difficult, as well as more likely to cause hæmorrhage, than that of one which would yield to any deviation in the course of the canal, resulting from the tumour in the perinæum. But, although the instruments were flexible, still, as they increased in size, I found that the proneness to hæmorrhage increased also. This I attributed to the induration round the urethra not allowing it to yield to the dilatation necessary for the passage of the instrument, or to the cause already alluded to; and, as it was evident that the mere passage of the bougie, and its retention, for a short time, had produced no permanent effects, I determined, since the kali could be of no use in such a case, to try the effect of wearing the catheter for four-and-twenty-hours. This plan was adopted, without any inconvenience or untoward symptom arising, until a No. 11 catheter could be passed. An interval of a week was then allowed to elapse without any opera-

tion, when the same sized catheter was again passed. But, although it went in, it was evident that the indurations had caused considerable pressure on the canal. However, on the 28th of November, the patient was so well that he was enabled to return home; with instructions to continue the hip-bath every night and morning, to apply six leeches to the swelling twice in the course of a fortnight, after which he was to let me see him again. These directions were attended to; and, upon his coming up to London, I was enabled to pass the same instrument as had been passed at the time of his return home. Yet there was the same tightness; and the same additional pressure was necessary, to make the instrument advance along that portion of the canal, surrounded by the induration. He returned home the following day; and, at Christmas, I went to stay a few days with him, when I examined the urethra with similar results. I also found that the tumour in the perinæum exhibited, every now and then, a tendency to inflammation. Under these circumstances, it appeared to me, that perhaps we had dilated the urethra too rapidly, and without giving sufficient time for the absorbents to act on the chronic induration, and that if we continued to pass the large instruments, suppuration would, in all probability, result, from the irritation their introduction had evidently excited in the swelling. I, therefore, determined to allow another fortnight to elapse without operating, and then to operate with a small instrument. Thereupon I found that the patient not only made water much better after the operation, but that there was no irritation caused in the swelling. This result convinced me that it would be better to continue the introduction of the same sized instruments once a week, until one of a larger size could be passed with the like results; and, in the mean time, endeavour to excite the absorbents by warm baths, friction with iodine, mercury, &c. This plan my patient is now following, and I have scarcely a doubt that, by a steady perseverance in it, he will be completely restored to health, and that the only inconvenience his disease will put him to, will be that which arises from the necessity of passing a catheter once or twice a month for some years. But, whether I am correct, or not, in my anticipations, I think the case affords the most ample evidence of the great superiority of my mode of treatment; and I have no hesitation in saying, that, had the patient been fortunate enough to apply to me, before force was so improperly used, that he would have been perfectly cured. This case is further interesting, as showing how inefficacious, and even injurious, a valuable remedy may be made to appear, when applied without judgment or skill. If the patient, in this

case, had not had sufficient judgment to detect the careless and unskilful way, in which the surgeon used his instrument, at the time of his applying the kali, he would have attributed his sufferings to that remedy, and not to their true cause, and would consequently have been afraid to submit again to any treatment with the kali.

I have omitted to state, that on the days on which I operated, I directed the patient to inject an opiate enema an hour before he visited me. I must add, that we have both omitted to mention that, just before he placed himself under my care, he consulted a gentleman of eminence in the profession, on his case, and that this gentleman recommended that the stricture should be divided with the knife, by an incision into the urethra, through the perinæum; so hopeless did he think the prospect of cure by all the ordinary methods.

[This case was originally published in my former work on Stricture; and, in republishing it now, I think it but candid to do so, without any alteration, or qualification whatever, of the opinions therein expressed. Acting on this conscientious principle, I regret to say, that the result of this case has not confirmed the favourable view I had taken of it. After experiencing some temporary benefit from the treatment, the gentleman has, for the last four years, suffered from partial relapses, and derived only trifling and temporary relief from the treatment I had adopted. He is experiencing at this time great suffering, and can only pass an exceedingly small instrument. This unfavourable result appears to have mainly arisen from the excessive disposition of the urethra to contract at that part, where the stricture was situated, and which the surgeon attempted to force. Sir B. Brodie's explanation of the effects of a cicatrization of the urethra, after its rupture, and its inherent disposition to re-contract, after its complete dilatation (as already quoted), may, perhaps, account for the unyielding character of this stricture. If so, it would be another melancholy instance of the deplorable effects of violence.]

CASE IX.

Stricture of many years' duration cured in six weeks, after two Surgeons had failed in their attempts to cure it.

General M. called to consult me on a stricture which had troubled him for some years. He informed me that he had many years before applied to the late Sir A. Cooper, but without receiving any benefit from the treatment adopted; and that at a subsequent period he consulted Mr. ——, surgeon to St. —— Hospital, without obtaining any material relief. The General then went abroad for some years, during which time he suffered considerable inconvenience from the stricture; and, on his return to England, again consulted Sir A. Cooper. Sir Astley succeeded in passing an instrument through the stricture; but upon one occasion met with some difficulty, and unfortunately used considerable force in passing the bougie. When it was withdrawn, profuse hæmorrhage occurred, and the patient experienced most acute pain. After he had left Sir Astley's house, in returning up Regent Street to his own, he felt himself so ill, that he was obliged to go into the house of a friend, who lived in that street. He there became rapidly worse, and was attacked both with rigors and retention. So severe was the attack, that for two days considerable alarm was felt as to the result. Sir Astley visited him twice a day. By the means adopted, he was restored to much the same state of health as before. But the sufferings, which he had endured, prevented him from continuing the treatment; and from that time until he called on me, he had never consulted any medical man.

Upon examining the urethra, I at once passed a No. 2 bougie. As, from the commencement of the treatment to its termination, nothing occurred to interrupt its favourable progress, I need only state, that, at the end of seven weeks, I was able to pass a full-sized bougie, and the patient was perfectly cured. He left my care, February, 1842. I have seen this gentleman several times since, and he continues perfectly well. About six months later, he called on me, and, at his request, I passed a full-sized bougie with perfect ease He again called, February 15, 1843, and I once more passed a full-sized instrument, with as much facility, as I had done on the day when he left my care.

CASE X.

Disease of the Urethra, of seventeen years' standing, terminating in severe Stricture, which resisted all the ordinary modes of treatment, adopted, at different times, by no less than seven eminent Surgeons, finally removed by the kali and iodine.

Major —— called upon me in the early part of December, 1840, for my opinion on his case—one of stricture in the urethra. He informed me, that seventeen years before, he had contracted a gonorrhœa, and that, from that time to the present, he had never been perfectly free from urethral discharge. Some few years subsequently, he had first discovered symptoms of stricture, for the cure of which, and of the gleet, he consulted, first Sir — — —, then Sir — — —, afterwards Mr. ——, of St. —— Hospital, Mr. ——, of —— Hospital, Mr. ——, and Mr. ——. He also, whilst with his regiment in Dublin, consulted a very eminent surgeon of that city, who, after upwards of two months' treatment, was only able to dilate the stricture to the size of a No. 3 bougie. He had been successively under the care of the other gentlemen, for periods varying from two or three weeks, to as many months; but not one of them had succeeded in introducing a bougie larger than No. 4. He had also suffered, at different times, from rigors and retention of urine.

Upon examination, I discovered a stricture, about an inch from the orifice of the urethra, through which I could only pass the smallest gum elastic catheter, the diameter of which is not equal to half that of a No. 1 bougie. On tracing the course of the urethra with the finger, externally, I found that, at the part corresponding to the stricture, there was so much induration, as to impart, on pressure with the fingers, a similar feeling to that experienced on pressing a piece of Indian rubber. This induration occupied a full inch along the canal. The stream of urine was exceedingly fine, and the last portion was voided only in drops.

Upon a calm consideration of this case, I felt convinced that the treatment by the kali alone, in consequence of the extensive indurations formed in the membranes of the urethra and surrounding tissues, would never suffice to remove the disease. At the same time, the failure of the treatment with the bougie, by so many eminent surgeons, assured me, that nothing was to be expected from that method of treatment, but renewed defeat. Under these circumstances, it appeared to me, that the only treatment from which success could be hoped, would be to

combine, with the application of the kali to the stricture, free abstraction of blood locally, and friction with iodine over, and around, the indurations.

I explained my views to the patient; but at first he declined to submit to the severe and rigid treatment (as he deemed it) which I had proposed, and wished me to content myself with the application of the kali. But as I positively refused to attend him, unless he allowed me to judge and act for myself, he resolved, after two or three consultations, to submit to any treatment that I considered proper; and, in order that he might be completely under my directions and care, it was arranged that he should abide in my house.

I commenced the treatment by opening a vein in the penis, and taking away twelve ounces of blood. The patient was ordered to foment the parts, for ten minutes, with warm water, four times a day. As soon as the wound from the bleeding had healed, he was directed to rub in, every night and morning, upon coming out of a warm hip-bath, a portion of an ointment, composed of iodine, hydriod. potassæ, and camphor. Whilst these external means were used to remove the induration, the treatment for the cure of the stricture with the kali was pursued; and as nothing material occurred during the period of the cure, I shall merely state that, by the application of the kali internally, with occasional bleedings, and continued frictions with the ointment, the stricture was removed in two months, and I was able to pass with ease a No. 10 silver bougie. The discharge had ceased, and the patient was restored to such a state of health and comfort in the urethra as he had not experienced for seventeen years before. This gentleman, from a patient, has become a most intimate and sincere friend (as shown by constant acts of kindness); and, in talking over his case, he has often expressed his full belief, that, had it not been for my disinterested firmness, in refusing to attend him, unless he pledged himself to follow out my directions to the full, he should never have been cured. I mention this fact, in order to encourage the young medical reader, not to yield up his judgment at the desire of his patient, when he feels clearly that his own views are correct; for, in doing so, he may rest assured, that, although he may at first please his patient, he will ultimately lose him. Indeed, the patient will be the first to blame him for his compliance, when he finds the treatment fail: thus he will lose both a patient and a friend, in consequence of his weakness and good nature; whereas, my firmness has been well rewarded in this case, for it has procured for me a valued friend, in whose agreeable society I have since spent many happy hours.

CASE XI.

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 membraneous 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. The spasm continuing, I determined upon leaving a catheter in for a night. The next day, finding the catheter quite loose, I withdrew it, and immediately passed a full-sized bougie. In a few days the spasmodic action returned, and I could not introduce a full-sized instrument. I therefore again determined to leave a gum catheter in for a night; and the next morning the spasm ceased. From this time there was no recurrence of the spasm. This gentleman's cure occupied little more than three weeks. Seven years after the cure, I saw him again, and, at his request, I examined the urethra, and found it perfectly free from stricture.

CASE XII.

Stricture mistaken for Gonorrhœa.

Mr. B. came up to London, by the recommendation of an old patient, to place himself under my care for the cure of his strictures. The following is his own 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 time, 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 go to London, 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 hardness, with knotty indurations here and there. I applied the kali to the stricture. The patient was very anxious to know when he should be well. I told him that I thought

his cure might be effected in three weeks or a month, but that it was impossible to say exactly. 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 for him to remain 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, conveying a sensation as if it had been drawn over a nutmeg-grater; after which it entered the bladder. He came again the following day, said that he passed water much better, and had not experienced any inconvenience. He was most anxious for the kali to be applied again, though I pointed out to him the risk he would thereby incur; still he continued to urge me to apply the remedy, declaring he would take it all upon himself. 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, until 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 a slight irritation. I therefore declined, notwithstanding his importunities to the contrary, to operate, and 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, if it did not create uneasiness, to remain 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 had 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 could justify the free use, that was made of the kali in this instance, were 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 only excuse is the successful result;—a bad excuse I admit.

CASE XIII.

Stricture of some years' duration, with Disease of one of the Testicles and Spermatic Cords, cured by the kali, after 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; had been under the care of, first, Sir —— ——, and afterwards of Sir —— ——. Both these distinguished surgeons had, by the employment of bougies, tried to effect a cure; but their exertions were productive of but slight benefit. The irritation, arising from the stricture, or the constant employment of bougies, had caused chronic enlargement of the left testicle and spermatic cord.

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, I thought I should soon be able, by the aid of the kali, to effect his cure. At 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 pre-

sumed 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, "as dog did not eat dog," so, should he place himself under my care, I should not think of taking any fee; that, therefore, 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 that, 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 leeches twice a-week to the enlarged testicle. On his return to town, he waited upon me, much improved in his health; the irritation and enlargement of the testicle being 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, attending its application, and the pain which he had 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, he 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, and has done me the honour of recommending to me many strictured patients.

CASE XIV.

Stricture of twenty years' duration cured by the kali, after the patient had left one medical man, who had 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 strictures. He informed me that he had laboured under more or less difficulty in micturition

for the last twenty-three years He had never, till four months before, applied to any surgeon, but had 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; the water was passed in a small stream, and the retention was relieved.

The next day Mr. —— applied the kali; considerable hæmorrhage took place; and he 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; and 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, which enabled the patient to pass a small quantity of urine. This had been scarcely done, when he was seized with an attack of rigors, whereupon 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 had done nothing, except trying, two or three times, to pass a bougie himself.

He told me he had a constant desire to pass water (almost every ten minutes); that the urine flowed in a very small stream, and sometimes only in drops; that it required a considerable time to void but a small quantity of water; and he thought that he never emptied the bladder. At night he was disturbed every ten minutes; and the urine sometimes passed involuntarily. I introduced a bougie, but could not pass it beyond the stricture, and a slight bleeding ensued. January 11, Repeated the attempt, without success. January 13, Applied the kali; no bleeding. January 15, Said he did not experience the slightest pain from the application of the kali, and was better. He was perfectly astonished at the different effects produced by my application, and that of Mr. ——. January 16, I succeeded in passing a small catheter into the bladder. Having neglected to continue my notes of this case, 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 hæmorrhages 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, were 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 of great severity.

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

CASE XV.

A mixed Stricture, of four years' standing, cured by three applications of the kali.

E. R., Esq., was recommended by a college friend, who was 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 had not gone on so well, or so quickly, as he himself could wish. Some ten days or a 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 of the usual civilities, 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 —— —— being from home, when this occurred, the patient had, by the persuasion of his friends, sent a very "improper" letter to Sir —— ——, containing his fees, and informing him that he had determined upon consulting some one else. He added, that in consequence of his pointing out 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 unaquainted with its contents, and 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, I desired no remuneration. About a week after this, Mr. R. called upon me, to consult me on his case, in consequence of his not having derived any benefit from Sir —— ——'s treatment.

The account he gave me of the origin of his case was, that whilst at Oxford some years before, he had contracted a gonorrhœa, which continuing on him for a considerable time, caused him to come up to town, and consult Mr. ——. This gentleman prescribed an injection, which occasioned intense pain, violent spasms, and (if I recollect rightly), a total or partial retention of urine. The discharge was ultimately cured; but after this he began to experience difficulty in micturition, and became subject to frequent attacks of retention of urine. So ill was he at last, that he was compelled to give up all field sports. A year before he came to me, he consulted Sir —— ——, who attempted his cure by the bougie; but, as he had derived no material benefit, he 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 found a stricture at the junction of the bulbous with the membraneous portions of the canal. A bougie of size No. 2 could be passed through it. There was 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; and 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; that he had immediately applied a dozen leeches to the perinæum, and taken opium. Having expressed my surprise at his not having sent for me, he replied, that he considered it

useless, as he supposed, from his previous treatment, that nothing could be done for him beyond 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 draw 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. I then introduced a full-sized bougie, which passed freely into the bladder. In the evening, my patient called to say, that 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 in no instance was there any irritation or sign of disease. In a word, he was perfectly well. I saw him repeatedly during two years from that time; he continued perfectly well, and always expressed himself, in the warmest terms of gratitude, both to me and to the gentleman, by whose recommendation he had placed himself under my care. I believe, however, that at a subsequent period he had an attack of retention; but, as he has had repeated gonorrhœas since his cure, 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.

CASE XVI.

Stricture of twenty-five years' duration, 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 a poor man of stricture, came to the Infirmary, 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 which 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, to which he had been reduced by long standing strictures. He therefore immediately came to my house to consult me. The following is the history of his case, as related to me by himself:—

"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 got better. I learnt how to pass the instruments myself, and thereupon 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 of 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 hæmorrhage. 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, which was produced by the irritation resulting from the retention of the catheters, was so great, that fears were entertained for my life. There was considerable 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 from this time 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 sized bougie could be introduced into the bladder. Not-

withstanding 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 fœtid urine and mucus. There was considerable spasmodic irritability of the urethra; the urine was voided with difficulty and pain; in short, both night and day, he had been a martyr to his disease. His 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 could 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, and the employment of the warm hip-bath. 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 which 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 healthy appearance. As he was, however, extremely debilitated, though 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; directed him to sit night and morning over the bath, and dash cold salt water over the generative organs, perinæum, and pubes. In a very short time, his whole appearance and feelings 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 he ceased his attendance. For upwards of a year from this time, he continued perfectly well; but at the end of that period slight spasmodic irritation arose in the urethra. In consequence, catheters were again passed, and the spasms thereby removed; but as they evinced a tendency to return, I recommended that the instrument should 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—almost oo insignificant to notice, when compared with his past sufferings.

CASE XVII.

A case of Stricture, of ten years' duration, partially cured, at an early stage of the disease, with the bougie; a relapse occurred; all after attempts failed to relieve the patient: a false passage ultimately made; extravasation of urine; tumours in the perinæum; sloughing of the scrotum; four fistulous openings formed, two in the scrotum, and one on each side of the pubes.

Aug. 24, 1840.

James Flack applied to me for advice; he stated that, for the last ten years, he had experienced great difficulty in micturition. Eight years ago he applied to the —— Infirmary; at which 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, finding himself as unwell as ever, he applied again at the —— Infirmary; but Mr. ——, the surgeon, who had attended him before, had ceased to hold the 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 did not appear to have been in the interval under any of the surgeons, but said the "pupils" attended to him. Sometimes they told him to go into the surgery and wait; and often, after he had remained there for an hour, he learned that they had left, so that he could not on that day be operated on! At length, disheartened by such culpable inattention, and finding himself no better, he ceased to apply. For a time, he now contented himself with 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 the patient. He frequently went to the hospital at ten o'clock in the morning, and, after remaining there in expectation till four in the afternoon, he was told to come another day. During three weeks, though he attended three times a week, he was operated upon only twice, and never received any medicines. Discouraged by this neglect, he again ceased to seek surgical aid. At last he applied to another public charity, where medicines were given him, but no attempts were made to remove the strictures. After having attended here between two and three months, and finding himself no better, he 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." For the last year, he had been, off and on, an out-patient of the —— Dispensary. No instruments had been used upon these occasions, but merely some medicines given to 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 his 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, 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. The patient 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 which he passed, to save himself from falling. When he got home, he found his shirt saturated with blood. He immediately went to bed. Upon his next attempt to urinate, he endured the most extreme agony, and could pass a few drops of water only. 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 sufferings 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 incoherent replies, 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; the tumour, however, was much less, and he much freer from pain. The urine was highly offensive and ammoniacal; 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

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

considerable fever and constitutional disturbance. He was ordered, hydr. chloridi. gr. iij. ant. tart. gr. ½ pulv. opii. gr. iss. M. ft. pil. h. s., and an aperient draught in the morning. I saw him early the next morning, and found the scrotum enormously swollen. Free incisions on each side were made, from which urine oozed out. His general 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 28, I found that little or no urine had passed by the natural passage, and that the scrotum was greatly increased in size. I, consequently, made two more free incisions; and renewing my attempts to pass a catheter, I, fortunately, succeeded. On passing through the obstruction, it conveyed, for the space of an inch, 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 had opened. The tongue being still furred, and the constitutional symptoms being much the same, he was ordered to continue his saline medicines, and to have the following pill at bed-time: ℞ Hydr. chlor. gr. iij. antim. tart. gr. ½ pulv. meco. morph. gr. ij. M. ft. pil. and some castor oil in the morning. August 29, Complained of sickness; the bowels open; the catheter remained in, and he thought but little water had escaped by the openings. With the exception of the sickness, he thought he felt better; the tongue was cleaner. He was ordered to continue the fomentations and poultices to the parts, and the following mixture was prescribed: ℞ 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 30, A black patch appeared, involving nearly the whole of the left side of the scrotum; and the discharge from the fistulous openings was so exceedingly offensive, that his wife became sick when she removed the poultices. He was directed to mix with the poultices and fomentations, liq. chl. calcis, and to continue his mixture and to take these pills with each dose: ℞ Sulp. quinine, gr. iij., conf aromat. q. s. M. ft. pil. ij, besides half-a-pint of port wine every twenty-four hours. August 31, Going on very well, with the exception of increased uneasiness and swelling in the groin. A lancet was

inserted into the swelling, and a considerable quantity of pus discharged from the incision. The catheter was partially stopped up with mucus during the night, and the water was 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 was separating; the urine still deposited a copious mucous sediment, and was ammoniacal. Upon the whole, the patient's state was favourable, and he said he should get well, which was no bad sign. September 1, Much the same. September 2, The slough had come off, and the left testicle was 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 28, he continued these medicines, only taking occasionally a dose of castor oil; the catheter being either retained, or else introduced when he desired to urinate. He gradually and steadily improved; the urine assumed a healthy character; the mucus had disappeared, and the fistulous openings healed. He was now very anxious, when he required to empty the bladder, to cease retaining or using the catheter (sometimes doing the one for a day or two, sometimes the other), and it was consequently discontinued. Continued to go on well, and to attend to his business; he used to pass the catheter every other day up to November 6, when he was seized with shivering and fever. A slight swelling appeared in the old spot on the groin, and it was exceedingly painful. On seeing him, I immediately made an incision in the swelling, and the urine escaped through it. In a few days the fever left him, and from that time he got on well.

CASE XVIII.

A Stricture of the Urethra, 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, he was induced to hope that, with 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 professed 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 had diminished. He consequently wrote to Dr. T——, who, in his reply, recommended him to introduce a bougie occasionally; thus, in his practice, belying his assertions, that "bougies are not only useless, but injurious." 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 when he had first placed himself under his cure. 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 informing me he had suffered no inconvenience from the application, I repeated it, directing him to come the next day. At this visit he said 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 introduce 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 XIX.

Enlargement of the Prostate Gland; partial paralysis of the bladder; disease of the internal or mucous membrane of that viscus—all 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 stricture of the urethra. Upon my waiting on his lordship at his residence, 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; whilst it was only within a year or so before my seeing him, that they had assumed their present formidable character. His lordship, generally speaking, was only able to void his urine guttatim; though, at times, 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; the desire to do so frequent, and the amount, voided in the twenty-four hours, was only sufficient to relieve the painful distention of the bladder, but not to empty it. The urine 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 farther down the urethra, which was also easily overcome. A third then presented itself, which 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 was rendered pervious to the passage of a bougie (size No. 6). This was the largest that could be passed through the external orifice of the urethra, which appeared 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 was still voided in a small stream, but when

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

the bladder was so much distended as to allow the abdominal muscles to press upon it, 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 be stated, that as soon as the strictures had become pervious to a bougie, profuse mucous 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. At one time, I fancied fluctuation was perceptible in it; and I am not now quite satisfied in my own mind, whether there was, or not, at one time a prostatic abscess, which burst internally, and the contents were discharged with the mucous secretion. I applied leeches, under the impression, that the difficulty now experienced was the effect of spasm. In addition to the local abstraction of blood, I therefore 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 being 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 had left it. The urine was still voided without any power, and was loaded with a copious mucous, ropy, sediment, varying in colour, being sometimes of a white appearance, then brownish, and again slightly of a greenish hue. On passing the catheter, the water would at first flow through it with some degree of force, then dribble, and finally, as though the bladder were empty, cease: 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 contract enough to expel its contents. Another symptom should not be forgotten: namely, that the bladder, if completely emptied by the catheter, remained in this state; but, if it at any time became distended (which was frequently the case during 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, thus gaining two other advantages, viz., the power of injecting the bladder, and of keeping the strictured portion of the urethra open. Persevering in this course for some time, without much benefit, I ordered in addition some preparations of buchu, &c., with a view to lessen the mucous secretion that was still poured out in great quantities. Shortly after these remedies had been added to the treatment, an evident amendment occurred, especially as regarded the mucous sediment, which disappeared. Some few days after, I gave my consent to his lordship's taking a walk, and also a glass of wine. The next day the mucous sediment was as great as ever. The buchu and every variety of medicine were again tried for a period of some weeks, but vainly. Nothing seemed capable of arresting it; and notwithstanding the most rigid attention on the part of his lordship to my instructions and restrictions, yet little or no progress was made towards a cure. 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 results on his general health; so much so, that I felt considerable anxiety as to the result of the case. Painful as it must always be to the feelings of a medical man to convey such an intimation to a patient, I 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 thus imposed upon me; I therefore urged upon his lordship, more strenuously than I had ever done before, the propriety of my seeing him and passing a catheter twice a day, and not once, as had been hitherto the case; being induced to this by seeing that, notwithstanding the daily employment of the catheter, the bladder occasionally became distended. To this his lordship at length consented, and the result exceeded my warmest hopes. No sooner was this simple addition made to my previous treatment, than the mucous sediment rapidly disappeared, and his lordship's health in every respect improved. In a few weeks he was so far recovered, that I deemed it no longer necessary for him to remain in town. In compliance with my opinion, he therefore left

for his seat ———. Very shortly after his lordship's departure (I think in a few days) I received a letter from him, stating that the mucous 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 I had done myself when he was under my immediate care. This was accordingly done; and after some time he was once more so far restored, as to allow the discontinuance of the treatment. A month or two after this (as 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, 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 medical attendant had adopted, the imminent danger was overcome; though I found him still exceedingly ill. The attack was supposed to have occurred from his lordship striking the parts on the pommel of his saddle in riding. As the attack of the hernia humoralis subsided, the mucous 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. At length, feeling that the responsibility of directing the treatment of the case would be too heavy, unless I could have the advantage of personally superintending it, I respectfully, through his medical attendant, suggested, that it would be more advisable for him, either to place himself entirely in the hands of that gentleman, 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: the difficulty of voiding the urine was very much increased by an inflammatory and spasmodic affection of the urethra. 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. They were so highly sensitive, 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 led, at the same time, to believe, that between these ridges ulceration of the urethra existed, as, also, that some drops of urine were lodged between them. I, therefore, determined, after some time, upon introducing a catheter, and allowing it to remain in continually, in order that the urine should not come in contact with the ulcerated surface of the urethra. I, accordingly, passed a catheter at bed-time, directing him to allow it to remain in till my arrival in the morning. Upon visiting his lordship the next morning, I found that the catheter had escaped during the night, and that considerable irritation had been induced by the retention of the instrument. Apprehensive of causing a return of the irritation of the bladder, and of the mucous secretion from its internal membrane, I was unwilling 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, and thus destroy the morbid sensibility of these ridges of stricture. On the intermediate days, I passed the catheter, which I occasionally allowed to remain in 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 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; and having instructed his lordship how to pass a catheter, in order that he might introduce it occasionally, to prevent a relapse, he left town with every prospect of a complete restoration to health. Upon this occasion, I received from him the following letter:—

"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 had prescribed had removed all the unpleasant symptoms of which he complained, 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 that the irritation had not increased, as, otherwise, I should have been informed of it.

CASE XX.

An impassable Stricture removed by eight applications of the kali.

Mr. T. J. called to consult me on his case of stricture, under which complaint he had laboured between two and three years, and which he attributed 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, and I could not pass the smallest bougie through the stricture. The stream of urine was as fine as a thread; the inclination to void it constant, and, in the streets, most distressingly inconvenient, in consequence of the length of time 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, as he lost about a tablespoon-full 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, after two days, and told me that he had not had any return of the bleeding. He also informed me that he had made water as freely as ever he had done in his life, and that the only inconvenience he felt, was a slight scalding in 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 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 mean time, 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 XXI.

Severe Strictures, complicated by 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; at the same time begging me to 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. This tumour had first appeared about two years before his applying to me. At this time, it was exceedingly inflamed; caused considerable irritation in the surrounding parts, and nearly a total retention of urine. A surgeon of Liverpool had been consulted, who considered, after examination, that the tumour was caused by a stone having escaped from the bladder into the urethra, 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 were brought out; when the last-named gentleman, whilst some necessary preparations were being made, being

induced to examine the tumour and urethra, 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 then applied for a considerable period; the sore sometimes healed for a few days, and then broke out again. After some months, it healed altogether, leaving the tumour in a hard and indolent state. The urine now flowed in an exceedingly fine stream; indeed, it might almost be said to dribble away. He could not make water in an erect position, but was compelled to place himself in a sitting posture. During his journey, in consequence of the time required 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 in an erect position. This added greatly to his comfort, allowing him to relieve the bladder in the streets, which before, in consequence of the position which he was obliged to place himself in, 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 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 in the gradual diminution of the tumour. By the time the stricture was removed, there were but slight remains of the tumour; it having 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 XXII.

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 20, 1836.

David Sutherland applied at the Infirmary. State that, twelve months before, he had first found difficulty in voiding his urine, and that, four months later, he had applied to a surgeon at Bermondsey, who endeavoured, without success, to pass an instrument into the bladder; considerable bleeding following the operation. He continued under the care of this gentleman three months, without getting any better; hæmorrhage always following any attempts to pass an instrument. Since that period he had not had any advice. His urine now dribbled from him involuntarily, and he could not at any time void it in a stream. I passed an instrument down to the obstruction, but not through it; and blood followed the withdrawal of the instrument. June 21, Applied the kali. June 23, Passed a bougie down to the stricture; slight hæmorrhage. June 24, Applied the kali. June 25, He said that upon making water the day before, after the application of the kali, he felt as if something had given way, and that the urine was then ejected much more freely. June 26, I passed a catheter (No. 4) into the bladder. June 28, He said that, for some hours the day previous, he was unable to void his urine, but that to-day it passed in a good stream. June 30, I passed a catheter (No. 6). From this time he continued so much to improve, that 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 11, 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 to the —— Hospital and take a bath; but the patient, not liking his mode of operating, abstained from doing so, and never applied to him again. For three or four months after this he wholly neglected himself; after

which he applied at the —— Dispensary. The surgeon of this institution introduced a wax bougie, which he said went into the bladder, but Sutherland thought otherwise; for when it was withdrawn, it was doubled up, as though it had bent in the canal. He was the more confirmed in this opinion, because at no subsequent attempts did the instrument pass beyond the obstruction. After some little time, Mr. —— desired the pupils to attend to the patient, when he, seeing that they appeared to use force in passing instruments on others, ceased to attend, not liking, he said, to place himself in their hands. He next applied at the —— Infirmary. 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 thereupon applied to the surgeon of the Infirmary. 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 told me the instruments went out of the passage. In a fortnight after this, he applied to me, and, upon examination, I found that the instrument, when left to itself, appeared to drop into the sinus of the bulb, and then pass out of the canal. Blood immediately oozed out of the urethra, and upon the withdrawal of the instrument, a copious hæmorrhage 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 keep himself 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 two more times; and at the next operation, I succeeded in passing the catheter into the bladder. It was fixed there; an anodyne enema administered; and the patient was desired to call the next morning. Upon his doing so, he informed me that he had passed a very good night; the catheter was there-

upon withdrawn. At his next visit, he said he had passed water in a larger and freer stream than he had done for years. The catheter was again twice retained all night, and then a full-sized instrument was passed with ease. During the whole of this period (about seven weeks) he was able to attend to his 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, lest the armed bougie should slip into the false passage, and thereby aggravate the evil.

CASE XXIII.

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 him to place 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 said, that the pain, he had endured from the attempt to pass the catheter, had been so great, that, notwithstanding he had experienced great and increasing difficulty in micturition, he could never, since then, 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 should suffer from the introduction of a bougie. He called upon me two or three times during the next fortnight, but never in this time had the courage to allow me to examine the urethra with an instrument. At length, by the persuasion 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 membraneous portion of the canal. I could not pass any instrument beyond this; and 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 had been passed. 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, by his desire, to inform me that he continued perfectly well. Indeed, he added, that he was desired to say that Mr. J. thought he passed water more freely than at any former period of his life. This gentleman was cured in July, 1840. He generally visits London twice a year, when he never fails to call on me, and I usually passed an instrument on these occasions with as much ease, as I could on the day of his leaving my care. The last time I passed an instrument was about the beginning of the present year, more than twelve months intervening between it and the last; and he was then perfectly well.

CASE XXIV.

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 drunk 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; 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 the end of which, after having drunk freely, another retention of urine took place. It appears that, previously to this, the stream of urine had become 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 forgot, 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 meantime, however, the swelling in the perinæum had 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, as it was found impossible 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, preventing him from working, he took to travelling about the country, selling memorandum books. Some months after this, having wandered to Wells, in Somersetshire, he heard, to use his own 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 which he saw advertised;

but, of course, without receiving any benefit from them. In this deplorable state he had continued ever since. He was often compelled to sleep in the streets at night, with his grandchild, a boy six years old. He applied at a large hospital in that town, and was told that 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 pressed for a few seconds, and then withdrawn. He complained of slight pain. August 16, Said he was 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 farther down by a second stricture. August 18, Said he was much better; did not pass his water so frequently, and less came 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, and 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 20, 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 22, Attended; said he was much better; did not require to pass his water so frequently, the greater portion of which flowed by the natural passage. I succeeded in passing a small catheter into the bladder I applied the kali to the strictures. August 23, Said he was better. I passed a metallic bougie (No. 4) into the bladder. August 24, Better. He thought that scarcely any water passed by the fistulous openings. Applied the kali. August 25, Not

so well. Last night, not having the means to procure a bed, he and the child had 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 had been endeavouring ever since to get it taken into the workhouse, 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, so long as his grandfather should be in the Infirmary. He now became an "in-patient." I applied the kali. August 26, Better for his comfortable lodging. I directed him to have a warm bath. August 27, 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 was now much less, from the use of the ointment; the urine flowed by one of the fistulous openings only; the rest were healed. August 28, I passed No. 10: improving in every respect. August 29, He thought the last opening was healed, as he could not find that any water passed from it. September 10, Since the 29th of August, I had continued to pass No. 10 daily; the indurations were nearly gone; the fistulous openings perfectly healed, and he was so well, that he went out to endeavour to get some employment. I regret to add, that I cannot say how he continued well after he had left the Institution, for a few days afterwards it was discovered that 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.

CASE XXV.

September 1, 1836.

Peter Shannon applied to be admitted an out-patient. He stated that he had laboured under stricture of the urethra for six-and-twenty years. Many years since he had been under the care of Mr. Crampton, of Dublin, and afterwards under the care of some other gentleman

of that city He had been at that time treated with the common bougie, and had 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, and there was such a profuse bleeding afterwards, that his master desired him not to go again. In consequence, 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 complained 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. Here the duties of his situation prevented his attending to himself, and he appeared consequently to have relapsed. He went on to state that in 1829 whilst living at Windsor with Colonel White, of the Life Guards, he was seized with a retention of urine. He applied to one of the surgeons of the regiment, who, after having vainly tried to introduce a catheter, recommended him to start for London immediately. 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, though not at that time the surgeon to the Infirmary, took him under his charge, and operated on him with the lancetted stilett. Shannon said he experienced *intense pain* from Mr. Stafford's operation, which also caused a *profuse bleeding;* and that finally a considerable abscess formed in the perinæum, which laid the foundation of the fistulous opening under which he then laboured. 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 had entailed upon him. He now left the Infirmary, and, as soon as his general health was a little restored, 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 the 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, in addition to 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 said a false passage had been 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 period, to his applying to me, he appeared to have been at one time better, at another worse; the abscesses continuing to heal, and then form again and burst, and the strictures gradually to 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 previous 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 have heard that he has since died.

Steam-press of W. H Cox, 5, Great Queen Street.