On Structure.

I. Select this subject for our essay for various reasons.

I. If we bear in mind the very great importance of the urethral canal, that it is the channel by which one of the most important excretions is conveyed from the human body, that it is constantly called into action, that immediately behind it we have the bladder, and also that by means of it, the urethra is connected with the organs which secrete the urine; bearing all this in mind, it will be easy to understand the very great importance and interest, with which any continued obstructions in this canal must be regarded, and the very serious effect which such an obstruction must produce on the system at large.

II. The aponygue pain of chilblain is
Caused by the retention of the urine and this fortunately the surgeon can prevent. By an exceedingly process it can hardly be called an operation. I mean of course by passing the Catheter, one of the greatest, if not the greatest, inventions in Surgery. In almost no similar case can be so suddenly relieve a patient from the most excruciating and indescribable agony, to a state of comparative ease and comfort and never have me more grateful patients. In proposing to treat of this subject I cannot help feeling that as a medical student my practical experience of the disease has been to a certain extent limited, being of course nearly confined to those cases which have presented themselves for treatment at the Hospital, and that such being the case, I cannot expect to throw any new
light on a subject which has been so ably handled by so many distinguished authors. Indeed such is the hope or expectations of the humble author of this essay, not rather by careful study and attention nor, to the different appearances and to the different and various modes of treatment of the disease, to fit him in after life, to be able to cure the disease, and thereby alleviate the sufferings of those who labour under it; a class of cases which must occupy, in no small degree, the attention of all practitioners.

In this essay we propose treating only of structure, as occurring in the male intestines.

With these few introductory remarks we now propose entering on our subject.
Prior to entering upon the consideration of our subject it will be necessary, in order to understand it fully and clearly, to consider the Anatomy of the Urethral Canal. But it is not our intention, nor do I believe that in an essay of this description it would be proper, to consider this subject minutely, but merely to confine ourselves to those points of it, which bear upon the pathology and treatment of structure.

The Urethra is the membranous Canal which extends from the neck of the urinary bladder to the meatus at the orifice of the Sphæric Pénis. In considering its Anatomy it is most desirable to describe it as divided into three regions, Prostatic, Membranous and Spongy. The Prostatic portion is that which extends from the neck of the bladder, to the Membranous portion. This part of the Canal is enclosed by the Prostrate Gland, its length in consequence must depend more or less...
upon the length of the gland, but in health its average length is from an inch, to an inch and a quarter. Membranous Portion is situated between the Prostatic portion and the bulb, and is from three fourths of an inch, to an inch in length.

Spongy Portion extends from the bulb to the Meatus. Its length is from five and a half to six inches. It terminates in an expansion of the spongy tissue which is termed the bulb. There has been great difference of opinion among Surgeons and Anatomists regarding the length of the Urethral Canal, but it is quite sufficient for us to know that its average length is about eight and a half inches. Its diameter is not the same throughout; its narrowest points are at the Meatus and at the commencement of the membranous portion, in which situation it measures about the third of an inch. Its widest points are at the centre of the Prostatic portion, and at the opening of the bulb.
its measurements in these regions average 3/10 of an inch.

**Structure.** The whole **Urethra** is lined by a mucous membrane, which is continued from the bladder. It is smooth to the eye and vascular. On its surface are seen numerous minute orifices of mucous glands, the Prostatic portion being an exception to this. Just below a layer containing involuntary muscular fibre, elastic and horn elastic tissue. He may add that the principal muscles in close connection with the Canal are the Accessor Urmæ, Compreher Urethrae, and Deroer Uric. Let us now go on to inquire that constitutes a Structure. Different Authors have given different answers to this question, but he thinks that the definition that Structure is an abnormal contraction of some portion of the Urethral Canal, is as good as any. Sir Charles Bell, assuming the Urethra in a quiescent state, to be a closed Canal, says that "Structure is that condition of the Canal when it
has lost the power of dilating. Be that as it may, either definition is sufficient and in truth do not differ much. Structure of the Chitinous men at one time supposed, to be caused by fleshy growths in the course of the Canal, obstructing its continuity; the fibres lying in the balls or on the external surface spasmodically contracting upon them. But it is now generally admitted that they are the result of inflammation, lymph being effused and organised among the fibres of its lining coat, thereby causing narrowing of the Canal and hypertrophy. Thus we may of have a constriction produced which may vary both in tightness and extent.

In most Authors on Structure we find an attempt at clarification, but that there is considerable difficulty in doing so. We may judge from the fact that some Authors describe as many as nine divisions of the canal, while some make no distinction whatever. The fact that per...
of the characters which belong to all, now or by, is the obvious reason for this difference. We propose recognising these varieties of structure: Permanent Contraction, Transitory Contraction, under this head we would place Inflam. Stcture and Phasmodee Contraction, complicated or not as regards its connection with a permanent organic lesion. But we think it proper not to attach very great importance to any classification, but rather to regard it in the light of a useful assistance—though perhaps an imperfect one—to the easy and proper understanding of our subject.

We now arrive at a very important part of our subject, and one which deserves serious consideration, viz. the cause of structure, for to understand a disease thoroughly we must pay particular attention to its etiology. Besides, there has existed much dissimilarity in the opinion of various authors regarding it. One of the most fertile, we may say the most fertile, in our opinion, cause of structure...
is gonorrhoeal inflammation. The careful examination of those cases which have come under our own notice, with the opinion of almost all surgeons, leave no doubt in our mind on this point. Some surgeons have objected to this doctrine because they say that one half of the population of all large cities, have at one time suffered from gonorrhoea, and that if this disease really caused it, we should find it more frequent than it really is; this we think a very weak argument, and besides, it is false reasoning, for it is simply absurd to suppose, that because, in a large proportion of cases, structure is produced by gonorrhoea, that a man who has had gonorrhoea must necessarily, get structure. Its occurrence will of course in a great measure, depend upon the patient's susceptibility, a great many escaping it, while others will not be so fortunate. It was the opinion of John Hunter that structure did not arise from the effects of the Venereal poison. He said that he had seen cases of structure, in which there had been
no previous general complaint, but he does not say whether these cases were not the result of injury. In our opinion this merely proves that other causes than gonorrhoeal inflammation are capable of bringing on the disease, and not that it is incapable of doing so. Therefore this can not, I think, influence in any way that generally received opinion, that gonorrhoeal inflammation is the main cause of strictures. And now let us go on to consider some other causes of strictures. Some authorities say that injections into the urethra, for the purpose of arresting a discharge, are a fruitful cause of strictures. We must say that in the majority of cases which have come under our notice, we have found, that the strictures had existed previous to the use of any injections whatever. Indeed we think that the use of injections would be more likely to have an opposite effect, for we find that it is chiefly those cases of reflected gonorrhoea which have produced strictures, so that injection with the view of arresting the discharge, are much more likely to prevent
the occurrence of stricture than to cause it. At the same time we do not deny that injections of too great strength, and where recklessly used may cause stricture, but we think this is rare. Just as we propose considering injuries to the Urethra as a cause of stricture, and we shall find this a very prolific source. It is rather a curious fact that the very worst of most obstinate cases in an attack upon to treat, occur in this manner. It may occur without any external wound. The reasons that injury to Urethra Cause stricture are first, when there is a solution of continuity of the Canal, changes immediately take place to repair this lop, the result being the formation of a cicatrix and a contraction of the Canal, or if there has been merely a contusion over the Canal, inflammation occurs with a deposit of lymph round the Urethra; in either of these cases stricture is the result. If the injury is so great as to tear the Canal completely across, most disturbing results follow, the bladder cannot be relieved.
instruments cannot be passed, infiltra-
tion of urine takes place & death is generally
the result.
Internal violence from the forcible &
un#istul# use of instruments will also
lead to #tructure. There are many other
causes which lead to structure, but in an
essay of this description space will not
permit us to do more than mention
some of the more important of them.
Thus be may mention under the head of
"non specific cause": Repeated spasm
ie contraction, Abnormal Conditions of
urine, Masturbation, Chancres in #tissue,
Papage of Calculi, Lithotomy, Amputation of
joints, Habitual addiction to a diet which
stimulates the part concerned etc. etc.
From some remarkable cases which have
occurred we would be inclined to add to
the above causes, an hereditary tendency.
Having thus taken notice of the more
important causes of structure we now
propose considering its #ymp#ems.
As the #hlemb# is the passage by which
so important an excretion is conveyed
from the human body. As it is in immediate connection with the reservoirs in which it is contained prior to being expelled, it follows as a natural consequence that the symptoms of any obstruction in the canal would be referred mainly to the act of micturition and as we find it. It is also the case as we should expect, that the symptoms do not differ much in individual cases. In a perfectly healthy state of the urethra, we find the urine expelled without any particular effort, and in a good sized stream, but when, from any of the previously mentioned causes, a contraction takes place in the canal, we find alterations take place both as regards the thickness and direction of the stream, and also in the effort which efforts required. Thus very often the first symptoms noticed will be more or less difficulty in starting the urine, and also that it is not passed in as full a stream as formerly, and we often find that a few drops of urine come away after the act of micturition is
apparently completed. There is generally also a change in the form of the stream and it will become spiral, forked or double. As the disease advances the pain with the act of micturition & the desire of making water becomes more frequent. A very frequent symptom is a slight flity discharge from the urethra. As the contraction increases the stream of urine becomes smaller & smaller till at last it comes away in drops. When the stricture almost closes up the canal, the urine not infrequently dribbles away from the patient during sleep; this is a very significant symptom as it shows that the bladder has lost its tone from over-distension. Pain is now felt in other regions besides the bladder and perineum; i.e. have pains shooting down the thighs and also in loins. The irritation sometimes extends from the stricture to the rectum, and the patient may have added to his troubles "Prolapsus Ani" and haemorrhoids. Involuntary seminal emissions, on account of the irritation in
the Canal, often annoy the patient, and add in no small degree to the mental depression which only too frequently accompany Urachal obstruction. In addition to all these distressing symptoms, we may have as effects, rupture of the bladder, this fortunately is very rare, more commonly we have rupture of the Urachus, with all the horrible symptoms of infiltration of urine, the formation of urinary fistulae &c &c.

Thus we see that the catalogue of a patient’s troubles is both long and fearful; but it is no small consolation to him, as well as to the surgeon, to know that on the removal of the Urachal obstruction, which he hopes to restore feasible with hardly any exceptions, all of them will disappear, and that both health and strength will be regained.

And now he has arrived at the most important stage of our inquiry, viz., the treatment of Stricture.
and that most of the Cases which
come under our notice have been under
treatment by skilful and experienced
Surgeons for a very long time, in many
cases for the greater part of a lifetime,
we find sufficient proof that the

treatment employed is either uncertain
in its operation, or merely temporary
in its beneficial effects; and if we con-
sider the calamitous effects of the disease,
the importance of this part of our subject
cannot be over estimated.

For the successful treatment of its
diseases, the Ulceria must be viewed
physiologically as well as regards its
Morbid Anatomy. Its very great de-
licacy must be borne in mind and all
rough handling must be strictly avoided.
In using instruments we must bear in
mind that art, not force, will accom-
plish our object.

The treatment of Ulceria consists of
Dilatation, Application of Caustics, and
Incision, and we profess how treating
of them adequately.
First as regards Deletatious. This mode of treatment is the most simple of all the methods of cure, and when properly and carefully conducted, causes little or no pain or inconvenience. Various instruments are used for this purpose, and during the course of treatment it is found necessary to adopt some of their various. Thus we have plaster and metallic bougies, gum elastic and silver Catheters. Surgeons generally have their favourite instruments, some recommending one kind, others another, each in truth giving the preference to those which he can manage best. As this is the most simple and mild mode of treatment, so it is the most desirable whenever the case admits of it. It certainly is the most applicable in a very great number of cases which present themselves to our notice, and consequently is the mode of treatment generally employed, surgeons only availing themselves of other means, when its action is not effective from causes
to be hereafter enumerated. The records of surgery prove that it has stood the test of experience longer than any other mode of treatment, for we find that it was employed in the time of Galen, and has never been laid aside since; a very strong proof of its efficacy as a mode of treatment, he may say generally as regards the choice of instruments, that in the hands of an experienced surgeon, the curved metal instruments are the most efficient. While in the hands of those who are not so skilful, the flat bougie is perhaps to be preferred, as being less likely to do mischief. However in such cases different instruments must be used in the various stages of treatment. Let us now suppose that from symptoms and explorations by means of bougies and catheters, we diagnose a stricture of urinary orifice. How is the treatment by dilatation carried on? The method generally employed is termed temporary dilatation, as distinguished from permanent dilatation. After having ascertainment the position of the stricture,
be laid through it, and into bladder, the largest bougie or metallic instrument which the stricture will admit. If we find that it takes but any degree of ease, it may be taken out, and a larger one substituted; but if we find that the stricture will not admit an instrument of a larger size, we must allow an interval of two or three days to elapse before again attempting to lap the best size of catheter. If we now find that the new lappa, without much difficulty, after another interval we lap the best size of 20 or more around the neck, until the urethra attain its natural calibre.

When undergoing this treatment the patient must carefully avoid all kinds of sleep. The surgeon must attend also to several circumstances, such as the most suitable period of the day for the introduction of instruments - a few hours before going to bed being perhaps the most suitable time. The state of the weather should also be attended to.
on a cold day or when the patient is cold, if it can be avoided. He must also be careful not to mutate the
Rhetra by the too frequent raping of instruments, times during a rest
being in general suffissent.

Permanent dilation. This consists in
raping instruments through the structure
and permitting them to remain in
contact with it for some hours or days
as the case may be, the object being
to induce absorption and ulceration of
the structure, and thereby its destruction.

This mode of treatment is employed, when
from some cause, there exists in the
structure a peculiar elastic disposition
to contract. This is what Mr. Lynn calls
the resilient form of structure. It is
in those kinds of cases that we find
ordinary dilation unsuccessful, and
permanent dilation generally
practiced.

When the treatment by dilation is carefully
Conducted by skilful surgeons, and when all
precautions are carefully attended to, it no
doubt, in the majority of cases which we see, affords the most satisfactory results. But in a very large number of cases we find this mode of treatment either not successful, or merely temporary in its beneficial effects, and even when a cure has been the result, if we find that the use of bougies can never after be entirely dispensed with, at least such cases are exceedingly rare, and we have constantly case brought before us, when a neglect of this precaution has reproduced the stricture. He would also observe that cases of the resilient disposition to an actual, the treatment by dilatation is of very little advantage, the stricture contracting immediately upon the withdrawal of the Catheter, and not unfrequently having its resilient disposition rather increased than diminished.

Though it is the most simple of all the methods of treatment, yet it is not unattended with risk in some cases, thus, the introduction of a bougie sometimes keeps on an attack of fever resembling...
agree, which persons laboure under
strictures an iron or lead liable to, and
thoughts in general, this attack passes
speedily away without producing
any more effect than exhaustion.
Yet consequences of a serious, nay fatal,
Nature may ensue. Another dangerous
result from the exposure of instruments
is the formation of false papages, which
often once established, no caution, or
experience can avoid, with certainty.
In concluding these few remarks on
Treatment by dilatation we would
observe, that it is almost impossible
to lay down such general rules as would
apply to the numerous varieties of stric-
tures, occurring as they do in people of all
kinds of constitutions. Each practitioner
must, by careful observation of each par-
ticular case, decide for himself what both
the Constitution & Heurora of his patient will bear.
I may also mention that a new system of treatment has been
introduced by a Mr. Holt. It consists in introducing into the urethra
a ground blade fixed in a divided handle & containing between them
a wire welded to their points for the purpose a tube is placed
which is intended to split the stricture. Mr. Holt
publishes too successful cases of this mode of treatment.
He can have no better proof — if such was needed — that the treatment by electricity is not a complete remedy for the disease, than the fact that a very great number of other methods have been invented and tried to supply its place. He now proposes to consider one of these new treatments by means of Caustics. — Caustics. This mode of treatment consists in applying bougies "armed" with caustic substances, down to the seat of structure, with the view of producing either the absorption of the thickened tissue or its actual destruction. He finds numerous surgeons supporting this mode of treatment, and bringing forward cases where they say it has proved completely successful.

The caustic substances generally used are nitrate of silver and Potassa Iodo. Regarding the former of which he would observe, that its effects must be so limited as to render it powerless for the cure of the disease. While with regard to the latter, he thinks that it is too dif-
found a, regards its destructive powers. In fact while the one in all probability does too little, the other does too much. As regards Nitrate of Silver Home one of its admirers says that “in some cases the patient declined perseverance in the mode of treatment” and “he regrets that we have not a more active Caustic since when the structure becomes differentiated or almost cartilaginous in its nature, the later Caustic makes life more profitable upon it than could be imagined from any preconceived opinion on the subject.” In fact a confessor that for the most part, use of structure nitrate of Silver is useless. In some of his successful cases, as he calls them, he finds that the treatment must go on for years. In one case he says that during 24 years the Caustic was applied 486 times, after which the patient, after which the patient remained free from relapse but was under the necessity of taking a bougie daily and leaving it in the Urethra for half an hour to
Keep the Electrum in a state of tranquility. In another of his cases he found that the Canutie was applied 1258 times. Lastly be notice another case which took 22 years to cure!!!

As regards Potamia Trea we should observe that even in the event of it destroying the structure, a more state of matter may be the result from the loss of substance attending the operation. Let the consequent contraction in dealing be thought on the whole that in cases of alleged cure by Canutie, the result was the consequence of the dilatation by the longer employed, or that no real structure existed.

We now come to a most important part of our subject viz., treatment of stricture by means of cutting instruments. Let us enumerate the various modes of treating stricture before entering briefly upon each particular process.

In the first place we may divide this mode of treatment into two great varieties, Internal and External section, and
then may be again divided into two varieties. In the former we have the operation done in two distinct ways: first cutting the structure from before backwards, second, cutting it from behind forwards. The first section is also divided into two varieties; where the structure is supposed to be impassable to instruments, and is cut at the front of an instrument lapped down to the obstruction, and when having lapped a grooved instrument into blade the structure is divided upon it, and from let us consider. Internal Decisions. Internal Decisions. He thinks that serious objections can be urged against this mode of treatment. In the first place the operation is hazardous on account of our operating. As it were, in the dark; the most skilful surgeon is not able to tell exactly what he has cut and what he has not. From elasticity of the obstruction the operator may think that he has divided the whole while in reality he may have only
decided a very small portion of it. On the other hand, the opposite effect may take place from its rigidity; the excision may divide the pancreas of the bladder and cause extravasation of urine. Even if the stricture is divided the cure is very seldom permanent. Very disagreeable results sometimes follow this mode of treatment. Haemor- 
ragia of an alarming character has often ensued. In one case the renal ducts were divided and the patient rendered impotent for life. The operation has been attended with fatal results. Although no doubt successful cases have resulted from this mode of treatment, it is one which he would not advise. The only form of stricture which in our opinion, is adapted to it is that, when the stricture is situated at, or just within the orifice of the bladder, and the majority of successful cases have been cases of this description. But in strictures further back and especially those beyond
the straight part of Urethra, we think the operation neither prudent or satisfac-
tory; in fact the operator is like the mariner at sea without chart or Compass, as likely to go wrong a right. We here propose considering the treatment by Exsternal Incision.
External Incision. Let us first con-
sider that variety in which the stricture is divided at the front of an instrument guided down to the obstruction. The propose doing this very briefly. In the first place we would observe regarding it that cutting into the urethra in search of the stricture with no other guide than the point of a Catheter must be dangerous and unsatisfactory. But let us suppose that, that fact of the operation has been successfully performed, how are we to know that the stricture has been properly divided or not? In fact, whether the incision has passed through the center of the Canal or merely through the solid
Substances on either side, and if this take place, as it often does. Let us consider the effects. The artificial Canal which we have made must necessarily be tortuous in its direction. This must occasion great inconvenience, besides the practicability of our hot urine able to lap a Catheter to relieve the bladder, which may occasion the most destructive effects. In addition to this the newly formed Canal is constantly disposed to contract a result which leaves matters certainly no better than before the operation. With these few observations I think it more profitable to go on to consider what we certainly consider the most important and satisfactory mode of Cure viz. that of dividing the Stricture upon a Grooved staff passed through Stricture and into bladder.

Although we find that the principle of this operation was practised by the French Surgeons of the last century.
the credit of bringing before the profession this mode of operation belongs entirely to Mr. Syme. Although, as we have before observed, the idea of division of the urethra from without upon a conductor, was practised by French surgeons last century, he found that the object to be attained by them was not that exactly sought for by Mr. Syme; for we find on consulting French authors on the subject, that the operation was performed by them for the purpose of treating retention of urine, and not for the cure of Stricture, though the operation certainly effected both purposes. Now Mr. Syme intends his operation for the cure of Stricture and not for retention of urine, so that we hold that this operation is essentially Mr. Syme's, yet we now consider in what forms of Stricture he considers this operation necessary. Those cases in which the contracted bowel is so extremely irritable that the introduction of an instrument aggravates, instead of alleviating the symptoms
and exposes the patient to various dangers from the local and sexual disturbances thus excited. Also those cases when the peculiarity consists in a contractile tendency so strong as quickly to counteract the effect of dilatation and thus render it useless. For the above forms of structure, the decision upon a grooved director is a remedial means of the very greatest value.

Let us now consider the mode of performing the operation. Mr. Syme then describes it: "The patient, under the influence of chloroform, if he please, is placed with his back upon a table, with his limbs held up so as to expose the perineum conveniently. The operator then introduces the director and confides it to the care of an assistant. He then makes an incision over the structure about an inch and a quarter in length exactly in the central line. This should extend through the skin, subjacent cellular tissue, and
fascia, and may be deepened if necessary. Great care must be taken of to avoid going aside beyond the director. The operator having felt the instrument takes it in his hand and guarding the knife on his right forefinger marks its point into the groove on the bladder side of the stenosis. He then urges the knife through the thickened and indurated urethra. He then withdraws the director and passes a catheter into the bladder, then it must be secured by proper tape and a bandage round the loins. The catheter may be removed on the second day, but if the bladder shows no sign of irritability it may be left longer.

Great controversies have taken place regarding the merit of this operation since its introduction in 1844 by Mr. Syme. This question is a very important one, as affecting the safety and comfort of a large class of people.
urged against it. In the first place, those who have entered into the controversy maintain that it is unnecessary to divide a stricture through the perineum if an instrument however small can be passed through it. I have already seen that in certain forms of stricture treatment by dilatation is attended with no good results, and therefore I think that in a case where all other remedies of a simpler nature have failed, the operation is not only legitimate but that, with the consent of the patient, we are called upon to perform it.

The following case will illustrate this.

In August 1881 William Davy, aged 21, was admitted into Mr. Lyne's wards, he stated, that when he was about seven years old he noticed that he had great difficulty and pain on micturition and that in consequence of this his brother had brought him to a medical man, who passed instruments into bladder, this relieved him for ten days, but the disease
soon returned, and he was again taken to another medical man, who also helped with instruments, and exactly a similar result. The patient then for many years underwent no treatment, though all this time he suffered more or less from the disease. Four years before his emigration he had gone out to Australia. After being there for about 18 months, he had an attack of fever and ague, and for this he was admitted into hospital at Melbourne; and while there his bates suddenly stopped altogether. The medical man of that institution had great difficulty in inserting a catheter, which when introduced was tied in for a week. As soon as it was removed a dwelling began to form in the perineum, which had opened; a quantity of matter came out a day after his bates began to come through the ground also. The Surgeon at Melbourne Hospital then introduced a catheter for urination, and this was tied in bladder for six weeks, only been taken out for a few moments to be cleaned
Patient then went to India and there consulted another medical man who gave him some medicines for the disease, which had no effect. He then came home much in the same state, having about two thirds of his water left by the fistuluous opening in the perineum.

Dr. Syms introduced a longer tube than was found a tight stricture anterior to the urethra, which Dr. Syms believed to be congenital and the cause of the fistulous opening. Shortly after his admission he divided through perineum the Anus. Stricture and found that there was no obstruction behind, as he was able to pass a full sized instrument into the bladder. The patient continued very well, no outward symptom occurred some of the urine as usual, passed by the wound for a few days. As the stricture did not seem entirely free Dr. Syms again divided it and the patient after this continued to improve, all his water being passed in the natural way, and finally was dissipated. And
The following case will afford a good illustration of the obstinate form of stricture. Mr. Syme published it in 1849. It is as follows:

Mr. Syme was requested by Dr. Hay to take charge of a patient who had suffered long and severely from stricture. He was about forty-five years of age. His complaint had existed for twenty years, and during the earlier part of this period, he had undergone treatment by means of dilatation, with temporary relief, but latterly his complaint had increased so much as to cause suffering altogether intolerable.

On examination Mr. Syme discovered a tight stricture between five and six inches from the orifice of the urethra, with some difficulty succeeded in passing the smallest size of bougie partly through it into bladder. He then thought there would be no difficulty in treating the case by the ordinary means of dilatation, and succeeded at last in passing No. 5 of his scale, but beyond that could make no advance, and notwithstanding the degree of dilatation the patient did not experience any relief from the symptoms.
Mr. Syme then proposed to try the effect of permanent dilatation and found that at the end of ten days, after withdrawing the catheter, the complaint was in exactly the same state as it had been before the treatment was commenced. He then proposed to try internal incision; after this was done a large hongin was passed with great care, hoping to entangled of success, but next day things were in the same state as formerly. It was then resolved to try the effect of both modes of treatment and accordingly the structure was divided on both sides by means of two cannel catheters cutting right and left, and a full sized catheter was passed into bladder and retained for a week; but notwithstanding all this, in two or three weeks the structure had regained its former condition. The patient now declared that life was not desirable under the present state of his complaint, and urged that some efficient means of remedy should be employed to aid him of his complaint, no matter at what risk of
of danger. Mr. Lyme then resolved to divide the structure by five internal division, and the operation was performed in the usual way, already described. The patient suffered little from the operation except some little irritation caused by the urine passing through the wound. Then it closed he felt quite well and he continues to do so though several years have now elapsed. He has never suffered the trouble and in every respect enjoys the most perfect health.

It may be said that there are solitary examples, and that they may be attributed to some peculiarity of the individual or part affected, but this is not the case. He might, if space permitted, bring forward numerous examples where this mode of treatment proved equally successful.

The second objection made against it, is that it is not attended with any permanent good results on account of the canal contracting. A fact that it is insufficient. For truth this has never been proved, and the practical results of the operation
when well performed, prove that in several
the patients operated upon have remained
well, even from any return of the disease.
Mr. Thompson in his book on Stricture
days that “three or four of Mr. Lyon’s own
cases have accidentally come beneath my
own observation personally, all intervals of
from one and a half to three years after
the operation, and I am bound to say,
that they have no relapse, but that the
patient, in each case, was quite free
from stricture, or from any result thereof.”
He also goes on to say that “there is therefore
an alternative remaining, than to admit
the existence of a strong probability that
a large proportion of these cases must be
assigned to the third category—viz. those
for whom the proceeding has effected a
permanent cure.”

The third objection to its performance is
that it is likely to be followed by fatal
results. In fact, that it is dangerous.
Statistics of the operation will easily prove
this point. He finds that up to the year
1852, the operation was performed about
113 times, and the mortality in this number amounted to four; even one or two of this number may be attributed to the state of the hospital, in which they were performed, at the time of operation. Of Mr. Syme's 70 cases included in the above, there has no death.

Every year since the above date, has added greatly to the number of the operation, and with the most satisfactory result. This, Mr. Syme has performed the operation about 86 times, and each time with perfect success.

Instead of being often attended by fatal results, the operation seems to us to be remarkably free from any fatal consequences. A certain proportion of deaths must be expected to follow every operation in surgery; however slight.

The amputation of a finger or toe, the excision of a pile, may even the ligation of a bone, have each and all been known to be attended with fatal results.

That would be thought of a person who, on this account, would seriously object to their performance. In conclusion, re
would observe with Mr. Syme that:

I. That division of a stricture by external means, is sufficient for the complete remedy of the disease in its most intractable subacute form.

II. That in cases of lip obstinacy, but still requiring the frequent use of bougies, division is preferable to dilatation as affording relief more expeditiously, permanently, and safely.

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