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Treatment of Organic Structure of the Urethra.

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Having as a student in the capacity ofClinical Professor I had at least as many opportunities of observing the treatment of diseased patients, especially by external incision, as any one who can graduate this year, and having become thoroughly convinced of the superiority of the new mode of treatment over all others, in cases of intricate structure, I feel it my duty on every fitting occasion, not only to give your humble testimony in its favour, but to specially, in this operation, do so. I feel as strongly convinced of its advantages, and have been satisfied that it is only necessary that those, who have, by observation, become convinced of its advantages, should speak the grounds of their conviction, in order that the time when the operation shall be generally adopted may be hastened, thus much bodily suffering.
spread; much mental distress removed;
and many useful lives saved to society.

By organic structure of the
Urethra is now universally understood
a contraction in the urinary canal; by
chronic structural change arising from
a narrowing thickening of the lining
coat; condensation of the submucous and
these, from lymph diffused into these
interstices having become organized.
This is true structure; and what
some have described as inflamed wise.
Harmodic structure are merely different
stages or aggravations of the disease.
Like the results of other inflammation
structure may occur in various forms
degrees, and thus we have what are
called, indelible, volatile, resistant,
contractile structures, all of which are
organic structure variously modified in
different constitutions
structure may occur anywhere in the
course of the canal. The most common sites
are at the bulb, where the urethra becomes fusiform; at the neck of the gland (at the orifice). It is rarely, if ever, found in the membranous portion behind the bulb. It usually occurs near the orifice as a direct result of gonorrhea or injection, and at the bulb the canal—besides being naturally narrower than the rest—is also more liable to inflammation from being the seat of a peculiar sensibility, intended to govern the action of the muscles in the neighborhood. Besides, there seem to be a sympathetic path between the two ends of the canal. For, as in irritation near the neck of the bladder, we have pain at the point of the penis; so we observe the inflammation of gonorrhea near the orifice exciting the canal near the bulb, which we have seen to be a peculiarly sensitive spot. In a bad case there are generally several structures. Structure may arise from all the causes of special inflammation, whether
caused by irritation from within, from the bladder, or from without. Some of its causes are little known, but it generally results from gonorrhea or the treatment for its cure, from blows or accidents to the parts, from cold attacks, from calculi in the bladder, from improper diet, masturbation, excessive venery, especially, as in the East. Where the disease is very common, when that excess consists of unnatural prolongation of the act. Its symptoms generally come on gradually. 1st. The urine is ejected with difficulty. The stream is seen twisted, forked or small, with oftentimes an involuntary dribble at the end. 2nd. There is pain, distinguished from that arising from diseased bladder, that is before micturition, from that from stone, which is after it, by occurring during the emptying of the bladder. 3rd. Frequent calls to make water, especially during the night. This may probably arise
from the heat of the body, from the un-
tability of the bladder in disease from
the weight of the bladder pressing more
in the recumbent than in the erect
posture or the sympathetic nerves that
more readily exciting reflex action. The
effect of this pressure is not seen in
health, because the parts not being ir-
ritable do not call for relief with
sufficient urgency to awake the deeper.
The chief sign of want of that is that a
medium sized catheter does not pass
into the bladder. As the disease
advances these symptoms become ag-
gravated. The water is made pain-
fully by drops, that often require
the aid of a milking-like manipula-
tion of the penis. Often, too, the dropsy
is involuntary; the patient being in
able either to make or to keep his
water. There is pain in erection or
emission. The pain extends down the
thighs, the testicles swell, the
lining membrane of the urethra is de-
stated.
When the accumulated urine becomes perforated by ulceration, absorption, giving rise to urinary infiltration, abscess, etc., in perineum. At the same time, the patient suffers from frequent retention, and, especially on exposure or irritation, there are constantly recurring irritative or inflammatory fevers, much resembling ague. While the digestive system is impaired, the constitution undermined, the body debilitated, the mind prostrated.

These effects are so grave that the patient, as he feels them increasing, usually applies early for assistance. And this brings us to consider the aid to be rendered.—The Treatment of Structure.

**Treatment of Structure.**

In the treatment of Structure medicine has no curative power. In preparing the patient for surgical interference, however, in mitigating such effects as attention, pain to assistance relieff can be.

**Frequent**
frequently be afforded by means perhaps not purely surgical. And in that modification of structure, called Flasmic, greater antispasmodics are of the highest advantage. Before any operation is undertaken, the system is, as far as possible, be put in a favorable condition by purgatives, antispasmodics, baths &c. From the only temporary relief will be obtained, until, by surgery, the irritative cause be removed. This is accomplished by operation. Many have been proposed, all of which are founded on these three principles, namely, absorption by prepare, by Dilatation, extirpating the morbid structure, by Excavation, opening up a passage, removing irritant. Promoting vital absorption, by Incision.
It is curious to remark, as nearly upon the closure of literature, that this is about 15 years after we find the first mention made of Saurithea.
Dilatation.

Structure seems to have been quite unknown to the Ancient Physicians, no mention being made of such a disease under any name, before its treatment is described by two Italian Surgeons, André Sacra and Alphonse Ferre, about 1550. Alexander Troianus Astronomus of Padua, in 1565, after describing the affection, recommends for its treatment a wax candle or turgic, not indeed as a curative agent but as a sort to clean the wound, as a vehicle for conveying caustics to the structure. With the view of more effectually and safely applying these, the vehicle was gradually improved, by Ambrose Paré: Other Surgeons, who were in the habit of using leaden pods, which they passed through the structure, as large a pod being used as the passage would admit. The first use of the turgic, as a curative agent, seems to have been made by Weeman, Sergeant Surgeon to Charles II.
He introduced a tapering wax candle, which he tied down so as to perfuse the obstruction (removed only when the patient made water, a process still, as we shall hereafter see, frequent employed) with advantage, sometimes termed "fumelling." But the treatment by caustics continued the recognised mode, for upwards of 150 years after the affection was first described, i.e. till about 1740, when Sauvagard, Le Drian, Astine, Sharpey, & other eminent surgeons of that day, convinced of the unavoidable dangers & positively injurious effects of caustics, strenuously repudiated their employment, declared they did banish the practice of surgery, and advocated the use of the simple baggie. This they found to be as efficient as caustic, while free from its danger and of dreadful consequences. By their efforts, authority, example, the treatment was for some time entirely confined to the simple baggie.
It was at first supposed that the action of the instrument was merely mechanical, causing dilatation as if by a wedge. It was, however, soon discovered (generally admitted) as it is now universally recognised, that the good effects thence produced are chiefly, if not entirely, owing to the vital action of absorption of the lymph effused into the interstices of the textures, caused by the instrument, directly by pressure, indirectly as the result of acute congestion. If the instrument had acted as a wedge, it would never have come into general use. For the wedge acts by tearing, and tearing can never, in any living tissue, be productive of any thing but harm.

The canal has been occasionally dilated by the introduction of a piece of small intestine through the structure, the inner end being tied at an injection thrown up, and by instruments constructed, ingeniously enough.
on this principle. Brunnenhansen mentions cases where he succeeded by making the patient try to expel his water forcibly, while he firmly pressed the point of the penis.

Dilatation is now sought to be attained by means of catheters of different construction and materials, and applied in various ways. These may be divided into soft or flexible and rigid, continuously applied, and applied at intervals. The flexible are composed of various gummy substances, the rigid of various metals. Any will do, provided it be malleable, take on a fine polish, and not liable to rust. Silver or Berlin silver are perhaps the best, but steel is cheaper and answers very well.

The flexible instrument was first employed, it is still in common use. But, though often safer than the rigid in the hands of the inexperienced, or unskillful, the flexible is altogether inferior.
inferior to the rigid in certainty of introduction of its effect. By many, the flexible point is confined to exploration. The point is pressed against the structure, in the hope that, by obtaining a cast of the canal, after which may be facilitated. But this hope is vain, and worse, the practice frequently proving the source of most serious error. For, in a case of bad structure, the point may be caught by a fold of the wall, or may fall into a false passage. This has occurred, deaths being applied to the aims, has led to the most lamentable consequences, even to death. It has happened that on reaching the structure, the brace has doubled itself up so as actually to present its point flattened downward at the orifice of the wuthra. Now had the brace been withdrawn after being only a short time pressed against the structure, it would inevitably have given the erroneous idea of a flat
Flat opening in the structure. Besides, it is useless, as the information may with more accuracy certainty be obtained, by means of the common metallic bougie. The catgut bougie may perhaps, from its formness thinness, be sometimes found useful, not for exploration, but as an ordinary bougie in the cases in which I have seen it tried, however, after bougies had failed, it never succeeded; and a very fine bougie has been afterwards injected.

The rigid metallic bougie or catheter is the proper instrument for dilatation. Though not free from risk in unskilled hands, it is used with greater certainty precision than any other; by a skilful surgeon, only acquainted with the anatomy of the parts in health or disease. The modes of application may be divided into four: 1. Introducing graduated bougies, which are either immediately withdrawn, or allowed to...
remain some time. 2. Chip down a good-sized instrument fitting it so as to press on the structure. tunnel.
3. Retaining silver catheters in the cavity.
4. By Dilators.

1. Graduated Bourgies.

The method of passing the bougie is described in all elementary works, it is well known that it is unnecessary to describe it minutely. The chief indications to be fulfilled are, to have the patient's constitution in a state as favourable as possible in the circumstances. Care should always be taken to promote an active secretion from the glands of the skin. The skin corresponds in function with the kidney in the elimination of salts. Iron in blood structure, these acids salts which are always in excess, tend much in passing through the already erodable canal, to keep up the irritation. By producing copious diarrhoea a large proportion of these salts are eliminated.
by the skin, the wound being thus rendered
milder, the canal is less irritated. Moreover,
also, given a little time before using the
longee, is found of the very greatest advan-
tage. It is frequently of advantage
to keep the convexity of the instrument
upwards, because the structure is generally
permeable at the upper portion; by
keeping the point gently pressing in the
upper wall of the wound, we are
best able to avoid the formation of
false passages. Sometimes it may even
be useful in attaining this end to curve
the longee curved as suggested by Sir
Benjamin Brodie, thus —. Above
all the utmost gentleness must be used.
The longee being passed
through the structure it is usual with
most surgeons to allow it to remain
for a time. I have heard Mr. Richet
tell a patient to amuse himself by
keeping one in his wound for an hour
or two. This continued presence may
cause much suffering to the patient.
and aggravate, instead of relieving, the
structure, by exciting too much active
inflammatory action, with interstitial ef-
fusion, where all we wish is a
slight effect to cause absorption. Be-
deides it is not needed. For all the
effect desired is obtained by the
prepare introduction of the Bougie in
falling through the structure. When
the structure is dilatable, by the gra-
duated Bougie, it will certainly de-
late if treated in this way. I have
seen many bad structures dilated with
graduated Bougies by Dr. Saymer, but
I never saw him allow them to per-
main above a minute, then only,
when he was explaining some point in
the case to the Clinical Students. After
one Bougie has been introduced a
size larger is tried, and although
it may not pass on that day, by
being prepared for a little on the strica-
it does good—will most probably
pass the next day the dilatation is re-

continued.
recommended. As the dilatation proceeds, it is of advantage always to commence with a bongie which passed easily at the trial preceding, to pass one or two larger. The intervals must be regulated by the state of the part of the patient. At first not less than four days should intervene. Dilatation is complete when the effusion is re-absorbed, when the wound has regained its normal size. Any further dilatation is unnecessary, even injurious, as it can only be accomplished by absorption of sound texture or by lesion, leading pelage certain.

This is the simplest treatment by bongies, it generally succeeds in ordinary primary structure. But when the bongie cannot be easily forced to enter, we have another mode of using it so as to yet past the difficulty. This is by tunnelling.
2. Tunnelling.

Here the principle is the same. It has just been said that good results from pressing the point of the bougie against the stricture, while using graduated bougies. In this process a medium-sized bougie is passed down to the stricture retained prefenedly on it, as long as the feelings of the patient will permit; the operation is repeated at the usual intervals. Thus we frequently succeed in making the passage patent for a good-sized bougie, which is the object sought: but more frequently we cause sufficient dilatation to permit the passage of a small bougie, the dilatation to go on more quickly. Satisfactorily, because with less inconvenience to the patient, by the ordinary treatment, by graduated bougies.

3. Catheters retained in the bladder. Frequently the stricture is of a slight
tight, unyielding, resistent nature. In these
cases, though we may succeed in the
dilatation as to pass a moderate sized
forceps, yet, in our next attempt, we find
the stricture as tight as ever; the dilata-
tion has to be recommenced. In such cases
it has been usual to retain catheters in
the bladder, as long as the system of the
patient could tolerate them. If higher re-
sult than absorption is sought, that of
active congestion, whose resolution may
accompany it, not only its own evapora-
tion, but also the effusion disposed in
former times, somewhat in the same
way as the injection of a hydrocele pe-
"moves a redundancy of serum." Here, the
first effect of true inflammation is sought
for if, doubtless, is sometimes attained. Then
however, we consider the difficulty of limit-
ing the inflammation caused by a foreign
body or a surface exposed to the sight.
Such, we will not be surprised that,
in a weather naturally, especially prone
to inflammation, in which, like a blind
man with a stick, we must be guided solely by the sense of resistance communicated to the hand by a catheter. the inconveniences trouble of the operation should be considered to overbalance the benefit occasionally derived from it. local irritation (pain) are unavoidable; violent swollen (tissue) unabsorbed. In 1880 has followed: constitutional disturbance can scarce be prevented. Still, with the alternatives until lately at our command, it was frequently prudent to subject the patient to those inconveniences trouble, rather than to incur the still greater (more) unavoidable danger resulting from the employment of cautery or the ungued knife. Now, however, we have happily another operation at our command. The operation must hereafter be fully considered. It is sufficient at present to state a conviction that, in all such cases, it should be performed occasionally the presence of the catheter caused much pain (decreased) to the patient. It has
has been suggested that these might be expel-
ed by the catheter being curved, thus S, 
but as they are caused by the catheter 
acting as a foreign body, keeping the con-
tral parts of the same form, any modification of form 
being inadequate to remove these, will not 
the friends of science.

4. Dilators.

It has recently been proposed by 
Mr. J. H. Whitley of London to produce 
dilatation by means of instruments of his 
invention, called Dilators. By this mode, 
a catheter is passed through the structure, 
then through a steel director. The 
catheter is then withdrawn over the 
director, then, hollow, silver tubes, gradually 
increasing in size, are passed through 
the structure. When as large a tube has 
been passed as is deemed proper at the time, 
with the object of keeping the passage 
open, a semi-elastic catheter is passed 
over the director, which is then withdrawn. 
This is then a combination of the J. H. Whitley.
The chief advantages claimed for these instruments are:

1. Quickness of termination.
2. Avoidance of false passages.

In speaking in favour of these instruments, Mr. Poxley says, that they seem to act by breaking up the tissues forming the construction that the blood is lost in. Thus, assuredly, the dilatation will be quick. This gain in time, however, will be bought dear by an aggravated re-contraction. For the bloody shows that the walls of the wound are wounded. This wound, called a breaking up of the tissue, is a tear. Now the cutting from a tear is, of all creatures, except that from a burn, the most contracted. On this ground alone the instruments had be rejected, as unnecessarily producing structures tighter than those they break up. Besides, though nothing is said of the pain, we cannot but believe that it is great, judging from the agony caused by the slightest irritation of other tears or injuries, as in Figure of
of the arms of the middle.
It is difficult to see the force of the scare
alleged advantage. For as the catheter
director must first be passed through
the structure, the false passages are made
in efforts at introduction for the first
times, the danger is not limited, much
less abated, by retaining a catheter in
the bladder.

They have only lately been pro-
posed, apparently with the sole object of
avoiding the knife; which, for structure,
seems to be greatly dreaded in London.

But it will require strong arguments to
convince any surgeon that tying is better
than cutting. Stronger still to prove that
producing evacuation in a structured canel,
whence that evacuation can with difficulty
escape, is better than making a free cut
for it by external incision; that it is
not in truth a retrogression in surgery,
a pecuniance to the permanent old prin-
ciple of freedom escape of blood from
from a wound by closely uniting its ends.
instead of providing a free external trac-
ing.

Thus, of the four methods of dilatation, the 1st only is to be generally
adopted: the 2nd may occasionally be useful,
the 3rd was, until lately, in some cases an
only foible help, but is now-pended
unnecessary by an improved mode of
warfare; while the 4th is not likely to
live in surgery.

Dilatation in general.
The treatment by dilatation
is universally admitted to be palliative
only, relief only is expected. Even after
the patient must be content with compro-
mise cases, it must submit to the periodic
introduction of a protestant trac-
ge in neglect this precaution, which even an
intelligent patient will do, for the very
reason which should encourage him to
continue; the great amendment in his case
he will be subject to all the dangers of
petition in the intervals of dilatation. They,
even with the precaution, he may not al-
ready
escape. In most cases, however, the benefit is very great, and, by dilatation, properly conducted, after the original inflammatory action has subsided, relief may be afforded, without pain, stigma, or difficulty. Such being the case, and it is proper that, in every case, treated for the first time, this method should be followed. If the structure is recent, dilatation will generally be as successful as it ever is. For I believe a careful consideration of many cases of structure will show, that the advantage of the longer is in an inverse ratio to the length of time the structure has existed. The more recent the structure, the easier the dilatation. The reason of this is evident. While the effusion is recent, it is not highly organized, i.e. absorption is readily caused by pressure. But, after it has been effused a considerable time, it assumes an almost perfect fibrous or cartilaginous structure, which will yield to pressure, in no case without great diffi-
difficultly; which, in many cases, will be quite unaffected by it. It has been thought that, in cases where there are several structures, some other mode should be followed, from the belief that the anterior structures always depend on the one most posterior, that the former will not yield till the latter be removed. But, though the posterior structure is almost always the tightest, the others commonly depend on it, yet neither of these is invariably the case. Often the original structure is at the back of a former narrowing, within 1½ inches of the orifice, the posterior arises, as has been said, by sympathy, the excitation of the obstructed cord salts. In this case, the anterior may be dilated, sometimes though seldom, independently of the posterior. But in every case, the dilatation of the anterior structures may be effected, as far as to allow the organs to reach fact on the posterior. Thus, the multiplicity of structures does not in se
centa. Indicate dilatation. In former times no other treatment was admirable. But now, as the patient thinking he has plenty of structures when he has one, generally seeks relief before others have formed, and as I think dilatation should have one trial only, I would not, after seeing the advantages of incision, employ dilatation in a patient with several structures, unless I ascertained that he had never before been treated.

After the skillful judicious use of the longie, there is frequently a discharge of thick mucus. To this discharge, along with the absorption set up simultaneously, is the relief which follows the use of the longie attributable. This mucus has been mistaken for pus, a mistake which seems to have given rise to the medical opinion of Mr. Acton of London, that one curative mode of action of the longie is by causing a flow of pus. But no pus can flow unless some of the tubes are lacerated, divided or destroyed; either
of which occurrences is, justly, be considered by the Surgeon, as an unfavourable accident, calculated to aggravate the structure.

The advantages we have mentioned are great; but the picture has another side. Even when the lungie is handled in the most skilful manner, the pain is not unfrequently so great as to forbid a repetition of the attempt for many days; while the introduction is, in bad cases, exceedingly difficult. It will not then be wondered that the lining membrane is sometimes injured. And if, after this, the process is continued, or if the lungie is made into a iatoma, or fold of the lining membrane, a false passage is formed. This implies until, falsely in the practitioner—will apply to the only other operation warrantable, a director through the structure, being one of its essential principles. True, but after dilatation of such a structure, it almost invariably returns as bad as before, when the
the risk of false passages has again to be

put. This time is multiplied risk, which,

in the alternative operation, is avoided.

But after the leucir has suc-

cessfully cleared the strait, the dangers are

not over. After its use, some patients, espe-

cally those from warm climates, have

regular paroxysms resembling ague and

requiring the same treatment. All these

cases meet occasionally with persons un-

known. Many have recorded them. Mr.

Ayns mentions Herpetic eruptions on the

legs, face, painful swelling of the testicle,

tablecloth of the hernia. It occa-

sionally happens that even introduction of

a longir is followed by a purir, which

frequently authors in fever, sometimes so se-

vires as to end in death. This purir

occasionally follows immediately on the use

of the longir. As then most dangerous.

The fever attending following it has caused

death in 48 hours. Generally, however, the

purir occurs after the patient first

makes his water, when consequently, it is
not attributable to the direct immediate effects of the operation, but to the urine passing through the newly dilated urethra. This is proved to be the cause by the fact that if, after the tongue is withdrawn, a catheter, through which the urine may flow, be introduced no rigor succeeds. Now, although one rigor of this kind is of trivial importance and may occur from the same cause after any operation, a rigor every day or two is a very serious matter, and the same argument already used again applies that there is no need of running repeated risks when one only need be incurred.

Besides these disadvantages, serious enough, there is yet another which is insuperable by dilatation. There occur some forms of stricture so tight, persistent, tolerable that the tongue either cannot be persisted in, or forces absolutely, inefficient. Therefore, for their cure the symptoms are greatly aggravated.
try its use. Here it is confined, some other means must be employed.

I think we are now warranted in concluding

1. That in ordinary cases, binges are sufficient.
2. That binges should be tried in all cases seen for the first time.
3. That binges relieve but seldom cases, that their use is not always free from danger.
4. That some cases cannot even be relieved by them.
II. CAUSTICS

As already indicated the use of Caustics is as old as the treatment of Structure. Many different kinds, all more or less injurious, have been employed, by instruments variously modified (improved). A glance at their history will show the revolutions (which have taken place) among Surgeons as to their employment. Unfortunately, some, even in the present day, learning nothing, like the Romans, from past experience, will not allow their use to be a mere matter of history; but, by precept (practice) uphold this treatment (make it necessary to consider it here).

When Structure first became known, its pathology, like that of every affection at the time, was very erroneous. It attributed the destruction to the presence in the bladder of polypi, caruncles or warty growths, for the removal of which caustic was considered necessary. Peronin used precipitate applied by a longie. Ambrose Paré used thin wax candles.
candles with a stuff wick, to introduce in a heated pap. The pap was wrapped round the candle, by which it was conveyed through the structure, when the candle being withdrawn, the pap was allowed to remain, with one end hanging out of the orifice. Other surgeons, he tells us, were in the habit of using leach pots, which, smeared with "quicksilver ointment" they passed through the structure. Willisian used precipitated a grain of caustic.Fcine & other surgeons continued this practice, which was general till about 1790, its mischievous effects became so alarming, that the greatest surgeon of the day, awaking from their apathy, took the lead in securing it to succeed in banishing it from surgery. Savory and says "the treatment by caustic ought to be banished; the practice of "Surgery. Le6ran declares "I should absolutely "reject the use of any caustic" they were "only to eat into the canal."
Astrup maintains that "Causticates, which have force enough to consume, consume as at the same time, inflame, corrode, ulcerate the wound part. Sharpe tells us "the practice is universal, by condemned."

Mr. Pott also repudiated it in the strongest terms; and, at this time, as has been said, the practice was abandoned.

Shortly after this time, the great John Hunter pointed out the true pathology of scirrhous, showing that the contraction consisted of a thickening, time duration of the lining membrane, especially of the sub-mucous tissue, from lymph effused there becoming organized. One would have expected that this discovery would have led him still more decided to repudiate the caustic, still more strenuously to enforce the use of the simple brugie. But never having read anything of the history of the treatment, having thought of the caustic as an improvement on the simple brugie, he, without
without adding any new argument in its favour, adopted the practice in certain of the cases. His admirers, detractors, acting by acquiescence, not reproving his discriminations in that exercising what they themselves performed, carried out in all cases the treatment by caustic, which he recommended for some varieties. Thus the simple tropic was for a time laid aside. Then Antenor's pious combination, Sir Edward Aune, succeeded him, from his own cases, extended the practice. But the same which had dazzled the eyes of the profession had set. The young Crichton, who assumed his charter, was unequal to its guidance. He on disavowed, by perseverance, perseverance, to urge the professional wheels in the accustomed path. But the profession could now judge for themselves, for the eyes of the great surgeons of the day, he was humbled from the position of authority in structure, which he had been allowed to usurp. As in the case of Cromwell, when the dictator was dead, the hands
of his successor were too feeble to hold the reins of power. Still, respect for the memory of him, the great one who had gone, it is want of moral courage to expose an error in science, fraught with suffering, danger to life, to thousands, through fear of personal misconstruction. Many distinguished surgeons, disbelieving its efficacy, convinced of its dangers, appalled at its results, from publicly vindicating their opinion their practice. That such misconstruction would have certainly followed, their efforts will be apparent, from some recent animadversions in the publication of their opinions and views. In these remarks, it is stated, that, instead of being men who had impartially tested the curative power of caustic in structure, they were "contemporaries trials in practice" of Sir Ed. Tuke's, who were opposed to his views, "consequently nued every possible objection against it". But such misconception would be but temporary, in such a case..."
case, something is due to the professor the public as well as to the practitioner himself. It is not sufficient for an authority on the subject, to refrain from following a bad example, which is leading many others astray. He is called upon to disclose the fountain of truth, by his public censure, to drive up the straying the poisoned well of error. From this backwardness, more than from any other cause, has Caustic maintained its place among operations for truth, their advocates practised up to the present time. Lately, however, we have had an opportunity of knowing their sentiments from their posthumous letters. These letters by Bell, Pearson, Hey, and W. form an important link in the historical chain. In ordinary circumstances it would have been proper to have given quotations recommending Caustic from the work of Sir Everard Home, but after the revelations recently made as to his literary practices, no confidence could be
He placed in his statements, no weight attached to them.

Dr. B. Bell says "I certainly think that "caustic cannot be used with safety to the "sorethor, so as to remove any structure that "results a proper application of mild toxins."
The most dangerous consequences result from "the use of caustic, such as excessive iritis- "tation, suppression of urine, pistulous openings, "more permanent forms of structure, even "death itself."

Mr. Pearson styles it "a practice general "in dangerous circumstances." "Dr. Key thinks "the mischief which "follows from its application will bring "us back to the use of a safer remedy;" meaning the mild tragus. "Dr. Faro" can with great confidence declare, that even in cases where real "structure existed (where it (caustic) was "used with every precaution," he has "seen it useful. Often most pre- "judicial."

We thus see that the
Caustic, even in the time it was most
strenuously advocated, far from profiting
the confidence of the most eminent surgeons,
was most decidedly repudiated by them.
After this time, it again justly fell into
disuse, in favour of the tongs. Sir
Smithaard complains that this is going
back a century, to half a century;
strangely forgetting that his great master,
John Hunter, emphatically went back two
centuries in recommending the caustic.
On the Continent, the caustic
is still frequently employed, as will be
seen from the Theses of Mr. Keith
Pidgeon, who consider at length the
prac
tions of the most eminent Continental
surgeons. But, in this country, the most
eminent surgeons are opposed to the prac-
tice, though they have sometimes been
obliged to try it. Sir Benjamin Brodie,
who was connected with Sir Er. Home,
as pupil and confidential assistant, also,
in that capacity, must have had at
least as much opportunity of observ-
its effects as any one, who cannot be regarded as a prejudiced opponent of the practice, speaks most decidedly against it. He states that the process of destruction is tedious, difficult, dangerous, that there are very few cases in which a cure can be effected by the caustic alone, however long you may pursue in its use. And certainly no one can read the cases published by Sir Edward Home without becoming convinced of this fact. In one case where the caustic was persevered in for more than 10 years, it was applied upwards of 1230 times, before a trocar could be passed into the bladder. 
The patient gives the particulars in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Season</th>
<th>Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1802</td>
<td>Spring</td>
<td>95</td>
</tr>
<tr>
<td>1803</td>
<td></td>
<td>107</td>
</tr>
<tr>
<td>1804</td>
<td></td>
<td>94</td>
</tr>
<tr>
<td>1805</td>
<td></td>
<td>88</td>
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<tr>
<td>1806</td>
<td></td>
<td>233</td>
</tr>
</tbody>
</table>

899 times
<table>
<thead>
<tr>
<th>Year</th>
<th>Season</th>
<th>Cancer Applied</th>
<th>Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1806</td>
<td></td>
<td>699 times</td>
<td></td>
</tr>
<tr>
<td>1807</td>
<td>Spring</td>
<td></td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Autumn</td>
<td></td>
<td>93</td>
</tr>
<tr>
<td>1808</td>
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<td>98</td>
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<td>1809</td>
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<td>68</td>
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<td>1810</td>
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<td></td>
<td>66</td>
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<tr>
<td>1811</td>
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<td>72</td>
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<td>1812</td>
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<td></td>
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<td>1813</td>
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<tr>
<td>1814</td>
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<td>49</td>
</tr>
<tr>
<td>1815</td>
<td>Spring</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(when table stops)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In all</td>
<td></td>
<td>1238</td>
</tr>
</tbody>
</table>

During this time the patient was about eight months of each year under treatment. Surely this was giving the cancer a trial, which even its most strenuous advocate must have considered fair. Yet the patient continued such for three years longer, it then drank from the effects of the statute according to Sir Everard, from the effects of the cancer, according to all who consider the case. Here it is impossible to say whether we should most admire the confiding endurance of the patient, or...
or wonder at the blindness of the prac-
titioner, who could so long continue the
application of a dangerous remedy in the
belief that, at all events, he was af-
fording relief.
These and other similar cases seem to have
finally shadowed out to Sir Edward
himself, that some other treatment was
requisite; for we find him hoping that
some other escharotic may be found
to be more effectual than the Nitrate of
Silver.
This was thought to be
discovered by Mr. Whatley, in the Olive
Jus, which, in small quantities, he
strongly recommended. But in small
quantity it mixes with the secretions
of the wound, becomes oxygenified; oh
it is of no further advantage than any
noxious substance, patted over the
bougie. The benefits which Mr. Whatley
attributes to the canthic, were really due
to the bougie, just as was the case
when the armed bougie was first employ-
ed by Ferris Antonius, Ambrose Paré, &c.
The usefulness of small quantities was evident: the consequences resulting from the quantity being accidentally increased were as disastrous, that the practice recommended by Whetstey never became general. It remained for some surgeons of the present day to bring the employment of large quantities into notice, on the occasion of the interest awakened on this subject by the improved treatment introduced by M. Claye. These surgeons recommend much larger quantities than Whetstey thought advisable: quantities large enough to destroy the texture. And, inasmuch as destruction of texture is incompatible with coagulation of the tissues, one, who is acquainted with the two escharities, will doubt that this effect will be procured by the potasa bru, more readily than by the nitrate of silver. For, while the nitrate of silver coagulates forms a superficial slough, the potasa from dulnesses it inserts in to a considerable extent. But this advantage is more than counterbalanced.
Counterbalanced by the difficulty of applying the Katie as to limit its action to the structure alone. Any one who has seen it applied externally, has seen with what difficulty it is limited to the spot desired. And, in the whether, besides the impossibility of any means to limit its effect, there is another difficulty, arising from a law of hydraulics in obedience to which the Katie being dissipated will flow to the lower part of the canal, if in sufficient quantity it will destroy it just anterior to the structure, by which it is stemmed back. The consequence will be, either the formation of another structure, if the quantity of Katie be small, or a potato anterior to the structure, if the quantity be large.

Mr. Wade is the most decided in its favour, as he is the most recent writer on it. I shall advert to his conclusions. The cases in which he thinks it ought to be used, are:
1. Structure impervious to instruments

2. Structure of long standing, which, although admitting the passage of a small instrument, bleed more or less freely on its introduction.

3. Irreducible Structures.

1. Structures impervious to instruments, for which he most strenuously advocates the cautery, do not exist, as will hereafter be shown.

2. When a structure bleeds, it is a sign that the canal is wounded, the tongue not being properly introduced. It is true that the bleeding may be prevented by the cautery, but only for a time. The cause destroying the vitality of the part will prevent the bleeding, but when nature throws off the dead though, bleeding will be apt to occur. If, when partially detached, it be again touched by the instrument, bleeding will inevitably occur and that in greater quantity, the wound being more extensive affects more vascular tissues.
Note. Homoeopathy even details its cases by the hundreds.
If the structure prove to be of the circu-
table kind, on the introduction of mild
bronchics, it is difficult to imagine how
that irritability can be diminished by
arming the bronchics with an escharotic.

Such is an outline of the
history of Escharotics,—substances which
have been applied to the tissues not
only for the cure of organic structure,
but even, by Sir Edward Hene, for the
cure of deafness tof gout in the great
 toe,—Patrick, even when applied in
the most judicious manners, have pro-
duced the most disastrous consequences.

Cases, it is true, are constantly detailed
in illustration of their good effects. But
any good results from their use, it is
due to the dilating power of the bronchic
conductor, in spite of the case
it conducted. The detail of such cases
can have no weight, opposed as they
are to reason, experience. Common sense,
must be considered as abounds every
from prejudice frequent relapse of the circum-
stance. In Scotland, long ago, it occasion-
ally happened that old women so frequent-
ly declued the ignorant by pretending to
have dealings with evil spirits the devil,
that at last they decluted themselves to
suffered at the stake for the delusion.
Now-a-days they would be taken care
of at the public expense. So much in
gravity, if not ingenuousness, is displayed
by some of the advocates of Canstics, that
we would be loth to recommend them
to the care of their friends; I can only
hope that they will shake off the del-
usion, receive like sensible people.

On carefully analysing the cases
in which John Hunter, Charles Bell,
Sir Benj. Brodie, Dr. Guthrie, & others re-
commend the Canstics, it will be found
that they are solely those which have
been termed "spasmatic affections", or cases
of spasm complicating organic affections.
It is then likely for spasm that the Canstics
is most recommended by the best authorities.

But
But caustic often induces spasm. And it is too dangerous a remedy for so slight an affection, especially when it may be more easily, with much greater safety, removed by constitutional means, of which the best will be found to be Chloroform after anesthetics. If these two were combined, in some such preparation as a Chloroformic Tincture of Spiritum, I believe the preparation would prove a specific for spasm in general, of course, for that of the muscles in the membranous portion of the rectum, to which alone spasmotic structure is confined.

Even the most strenuous advocates of caustic confess that it occasionally fails, that the structure frequently resists, that the application is occasional, is followed by unpleasant results. What these unpleasant results are is known to every surgeon, they are detailed in every work on structure surgery. They comprise all these we have been to follow the careful use of the simple caustic, the aggravated form.
Even in the most favourable cases, where it chances not to do harm, from the frequent halts required to allow the patient to recover from the effects of the application, the treatment is longer than by the antiseptic. It has been prolonged for between 20 to 30 years, the sufferings of which were ended at last by death. Accidents frequently occur in applying the caustic. It has dropped from the CONDUS or STAETIN its way out. It has been seen on dissection after fatal cases, that the caustic has been repeatedly applied to a false passage, to the prostate, the effects of which need not be dwelt on, as the fact that these accidents were only found out on dissection tells the whole story. After their use, retention of urin has come on, requiring puncture of the bladder for relief. Hemorrhage is a common occurrence; that to such an extent that the pulse has ceased to be felt at the wrist. Generally each application causes excessive pain, this frequently followed
by purgors of "tremendous diarrhea," lasting for 2 or 3 hours. Nor are these the worst.
Perineal abscess frequently occurs, in
low fever, ending in death, not infrequent
ly sets in. Numerous cases of each of
these are recorded by the greatest ad-
voates of caustics. Well may the poor
patients subjected to this treatment explain
with the one under Le Everard Home
"A lesser grievance: habit breaks his gargoyle from
But if possible, a still greater than any
of these, as it is very common, tends
almost unavoidable, frequently, and in state
is the return of the structure in a form
so aggravated as to have been, until
hitherto, intractable. It can scarce
be avoided, because the caustics, if used
at all, must burn a new hole as a
passage. How all burns, however
produced, heal by the most contracted
 cicatrices which occur. In a canal
so narrow as the urethra, when the
cicatrized cicatrix is substituted for
the original lining membrane, it cannot
be
be otherwise than that such contraction will form a worse structure than an obstruction from indurated effusion; and, because tighter, (more extensive, because less) of lower vitality, it is less amenable to treatment. I believe it will be acknowledged, by every surgeon of experience, that the most inveterate structure he has been called upon to treat, has been previously treated by caustic. On this ground alone, the caustic should never be employed.

Some years ago, when there was only a choice of evils in the failure of the simple ligature, I should have excepted but a few rare cases, which are sometimes met with by surgeons in extensive practice. But now, when we have an operation, which we shall see to be simple, certain, safe, speedy, effective, I have no hesitation in expressing a conviction that the treatment of structure of the urethra by caustics, should be banished from the practice of surgery.
From what has been said I trust I have shown grounds for concluding:

1. That the application of Caustics to structures of the Uterus is a retrogression in surgery.
2. That it is difficult, dangerous and
3. That it is the fruitful source of aggravated structures.
4. That, though formerly in some rare cases allowable, in no case should this treatment be now employed.
Incision.

The Knife has been long employed as a remedial agent in cases of bad structure.

The first mention we find of it is by Freeman, who employed it in a manner so free from a principle so erroneous as to preclude success, the incision extending the whole length of the canal, being made without any guide to direct the Knife in the canal alone.

Sir Benjamin Brodie mentions Salford as inventing an instrument for cutting from within, a mode afterwards (much in use) still advocated by many, especially on the continent.

The method of cutting into the canal, behind the structure, has been long known being, in truth, but an imitation of the operation of nature to relieve the hinder by distending the canal behind the structure.

Some years ago Dr. Symes tried indecisive second incision, without success. But it led...
led to the most fortunate results, the idea of dividing the structure by external incision or a grooved director, an operation in every way so excellent, as we shall see, that like other great improvements in surgery, as in every thing else, the wonder is it was not thought of sooner; an event only retarded by the attention of surgeons being turned to some complicated operation for the cure. This mode is so incomparably superior to the others, that it is not necessary to discuss these at length. But as they are operations still advocated, practised, it is necessary, shortly, to consider them.

The treatment by incision may be divided into two principles of operation. 1. From Within. 2. From Without.

1. Incision from within.

All surgeons have for centuries tried this method. All have occasionally succeeded in giving relief, especially when
the structure was in the pendulous portion of the breast; but, in general, the resectors led them to dread the necessity of having recourse to it. The usual mode of performing the operation was by a catheter, armed with one or more lancets. The catheter being introduced, the lancets were made to open with a spring, and the contraction was incurred to a greater or less extent. Generally, the incisions were neither long nor deep. In this way relief may sometimes be afforded that the operation, always performed with difficulty, in the black, is never without imminent danger of causing hemorrhage. False passages, there being no external spring, infiltration of urine and even death. This especially happens when the condensation is great, in which case the most expert anatomist cannot be certain of hitting the breast. The cicatrizations of the incisions also form more unmanageable structures than the ones they cut up. Sometimes the incisions are made of great length.
Length Depth. Dr. Curiale, who is at present the great advocate of this operation, advises them to be made both long and deep. This he affirms has succeeded in many cases. The use of the tongue to keep up during granulation, it is possible that such incisions may, in some cases, remove the induration; elsewhere the structure for the time. But in proportion as the incisions are extended, steepened, is the danger increased.

In this operation the structure must first be passed by the catheter viscerally, in most cases under the power of the simple tongue. In those moderate cases, which either resist the full dilatory power of the tongue or are aggravated by its use, it is an operation preferable to the use of the Canist. But luckily neither is required. For, by reversing the principle of incision, we have such cases under our command.
II. Incision from Without.

1. Cutting in the end of a long paper down to the structure; flushing behind the structure.

These are the same in principle, modified to suit each individual case. It consists of cutting down in search of the urethra, then pushing a catheter through the wound.

It has often been performed by the most eminent surgeons; and in London at the present day, it is still performed as the chief, indeed almost the only alternative, after the failure of dilatation.

It is sometimes attended with partial success: it is never performed without difficulty, though. It has been said of the dangers and difficulties attending incision from within, applies with ten-fold force to this operation. The difficulty is so great that the operation sometimes lasts half an hour; when performed by the most expert operator; often all the patient is sometimes sent to bed without its
its being accomplished. In this case, the patient is exposed to nearly certain death from extravasation of urine.

"Even in the most favourable circumstances," says Sir Benjamin Brodie, "it cannot be otherwise than doubtful whether the structure be properly divided, that is, whether the incision be passed through the narrow canal in the centre, or through the solid substance in each end. So often is the canal missed or not accurately hit, that the re-opened canal is generally described as angular. Such being the case, it will not be wondered that the operation, when not fatal, generally gives rise to a perforation of structure of the most inexact kind.

Professor Syme styles it "protracted, uncertain, dangerous, unsatisfactory."

Mr. Cuvier in his late work on Structure mentions the dangers which accompany the two kinds of incision just discussed, under 9 heads, the enumeration of which would..."
would, in any ordinary case, be evidence sufficient for punishment, at least. They are:

1. Pain
2. Hemorrhage
3. Irritative Fever
4. Echymoses
5. Local Inflammation, Sternumation with or without discharge.
6. Infiltration of Urine
7. False labes
8. Inflammation spread in different parts of the body
9. Death

These operations have, in general, been resorted to only in the belief of the structure being impermeable. Sir Penj. Brodie says "I suppose that no surgeon would think it right to recommend such an operation" as the latter, if he were able to introduce any kind of instrument through the structure into the bladder.

This, the permeability of all structures, forms one of the principles in the new operation for
for instance, and, as the threshold of the operation, it must first be got over.

2. Syme's Operation.

This operation consists of two stages, each of which constitutes a principle of the operation.

The first is passing a grooved director through the structure.

The second is dividing the structure in the groove, by external incision.

For the first, the structure must be permeable.

For some time back surgeons have been growing nearer nearer to the conclusion that all structures are permeable. Sir Benjamin Brodie says "there are very few cases, in which, by perseverance and patience, and dexterity, and, above all, by gentle management, you may not at last "half an instrument into the bladder." To decide is he of this opinion, that he records a case, in which he persevered in this management for a whole year, at
last, was rewarded with success! few surgeons indeed there are who would persevere for such a time, fewer still in whom the patient would have such confidence as to give them the opportunity.

That all structures are permeable to a properly managed instrument is the result of the observation, experience, reflection of Mr. Syme. Perhaps no fact ever stated in surgery has been more contested than this. And for the simple reason, that the snobishness in it are continually meeting with fluids which defy all their efforts to introduce a trocar. But that it is a fact, that whenever urine can come out, a properly managed instrument may be passed in, cannot, on considering the whole question, be doubted. And this fact being established, the cure of structure is in our power. John Hunter lays that a structure which admits the point of an instrument is completely under our command. Such having been believed to be the case in
This time, it will shortly be seen how much more it is so now. It is of the utmost consequence then to establish the fact, that there is no such thing as an impermeable structure.

Setting aside the two most rare cases, where a man is dying from retention, into whose bladder no instrument can be passed in time to save his life; and where the bladder is entirely united from disease, accident or the caustic, there is no impermeable structure. In the first of these cases the structure is in reality never impermeable; though the consequence is the same as if it were; for it is impermeable at the time to the surgeon present, the bladder must be emptied at all hazards. That it is not really impermeable is proved by the facts that, shortly before, the urine passed through it; that after the bladder is punctured, an instrument can be introduced. In the second case there is no structure.
It may have been a structure, but it is no longer, in consequence either of accident, disease or treatment. If I were to stamp on the gutter where it goes, which conduces gas to my furnace, I would cause a structure of the canal, which could easily be remedied by the mechanical power of any oblate instrument. But if I armed that instrument by making it red hot, then applied it to the structured part, so as to turn it, the sides would press together, it would be no longer a structured tube, but a solid body. And so it is with the case I have mentioned, the wine having another outlet. These then must be excluded. And these excluded, there is no stricture so tight that wine will not pass through it, by dribbles or even by drops, it may be, that effects by sedatives that phasmosity, still the wine will pass through. And if any thing will pass through a structure, that structure is not, I cannot be, impermeable.

But
But it will be answered, we mean surgically impermeable. Sir Benjamin Brodie, Mr. Guthrie, Dr. Astley Hy are have all met with impermeable structures, therefore what was found to be impermeable to such surgeons must be surgically impermeable. True, they met with rare cases, which they believed to be impermeable structures, because they believed such were to be met with, were prepared to meet & encounter them. This only proves that a structure has been thought impermeable by some good surgeons, not that it is surgically impermeable. The name of Mr. Syme himself might at one time have been added to the list; for he used occasionally to meet with such structures, so long as he believed what he had been taught, that such might occur. To suppose that there can be nothing more or new besides what we have been taught, is the sweet way to prevent any thing more or new from being learnt. By no means is this protectionist principle...
principle, he convinced himself that there is no such thing as impermeable structure; consequently, using greater care in looking for the passage, such structures have, since that time, disappeared from his practice.

In the days of Columbus, all men but himself despised of finding the new world because they believed it did not exist. But he, gifted with an intellect justly relying on its own great powers, which told him that what he sought for must exist, persisted in his efforts at discovery. Finally, saw them crowned with success. And so it is here. These surgeons do not believe every structure is impermeable; consequently, pose no rest from their efforts to find the passage; while the discoverer of this new operation, continuing his patient, gentle, skillful efforts, at last invariable effects the passage; thus has the structure completed, in his honor.

After Columbus had made his mighty discovery, many at first doubted; but shortly every one was able to confirm its reality.
Note  * In the Lancet 1850, I 453 it is actually stated: "Mr. Symès is an old operation revived." But that article bears internal evidence of utter ignorance as to what Mr. Symès operation is. It is indicative, however, of the progress of the operation.
Reality. Then, as in every great discovery, it was declared to be no discovery at all, but a fact of which many had been long convinced. But as truth is not the child of authority, but of time, the merit of the discovery was soon settled. In the case of structure, the first of these stages has passed; the second is passing. I must not the author, or the profession, trust, for him will come they have to defend his title to the discovery.*

But, I would ask, if impermeable structures are as common as the opponents of the new operation affect, how comes it that no one of them will show that he believes what he says by proclaining, in a certificate, to the medical world, that here is a case of impermeable structure; at the same time putting the patient (Mr. Syme) into communication, that the profession may be able to decide the question, from the results of his treatment. I have myself seen many
Structures, which various surgeons had pronounced impermeable;—many of the men, otherwise able, had been dismissed the different services for incurable, because impermeable, Structures. After many trials, they could not be passed by the smallest instrument. But these very efforts made to effect a passage known to exist, acted on the living textures by causing interstitial absorption, and, at last, the structure, without force, became fragile; unusual pain or any other continued sign or symptom, was found to be permanent. I remember a case which was treated, while I was doctor. The patient, the finest specimen of a man I ever saw had been dismissed from the Field Service in which he had been Sergeant Major, on account of incurable, because impermeable, structure. For 8 or 9 years innumerable practitioners, civil and military, had failed in all their many efforts to pass an instrument into the bladder. Mr. Syme failed in his efforts 12 separate times.
Some, who still doubted, began to think he had at last met with a real impermeable. But at the 13th attempt, he was successful in discovering the bubble. While the patient kept explaining "That it, Sir. That's it", he passed the point of his longie firmly into the bladder. Before surgeons were aware that every tissue is permeable, if properly tried, all these would probably have been treated as impermeable. Moreover, operation performed in attempts at cure, instead of certainly accomplishing it by a simple, safe transverse incision.

The fruitful source of impermeable structures is force in the use of the instrument. No force is required. None will be tolerated by the parts. Whenever force is employed, there is imminent danger of tearing the lining membrane, thus making false passages. When these already exist, the instrument is apt to pass into them. Thus, if the true passage is hit, after a few tries...
trials, the structure is pronounced impermeable; which it is to those surgeons only, that from their own impatience or want of skill. Yet, as the human mind naturally seeks the cause of error everywhere rather than in itself, these surgeons, no doubt, firmly believe, maintain, that they have met with impermeable structures. This is no hypothetical case. We have seen that the Caustic has been repeatedly applied to a false spot, deemed an impermeable structure; in the case alluded to, there was at least one false halfpore. It is a curious pathological fact, that no structure has ever been found impermeable after death. Even in those whose structures had been most investigated the cause of death, for years considered impermeable, by many different surgeons, the canal has been found sufficiently large to admit a good-sized loopie. The impermeability during life arose from want of skill in avoiding the false, improper
It has been hinted that the director may, by the side of the structure, not through it; in other words, that it may produce a false passage. In answer to this it may be asked: Is it likely the instrument would reach the bladder through a false passage, that too without pain, bleeding, or other inconvenience? And, if it could so reach the bladder, would incision be successful if the agency therein were alone laid open? For, if in laid the instrument is laid aside till the irritation has subsided, I have never seen a drop of blood drawn, except in one case, where simple dilatation was going on; which blood, tying the tongue, gave occasion to this pate. They repeated to the clap. Until these two questions can be answered in the affirmative, it is needful further to consider this objection.

But the opponents of the operation, like the Bishops, are overcome.
Isted in Lancet
overcome in front, than they from attack in the rear.
The permeability being established, the objection is raised—then, as John Hunter said, you can command the structure. This is now true, though not as they meant. Their own practice shows that there are some invertebrate peculiar forms of structure, distinguished by the tightness of contraction, the resistent disposition. The played after dilatation—the great degree of contraction induced by attempts to effect this, for which they employ some of the other means we have shewn to be so inefficient, dangerous.
John Hunter referred to the common tongue, which was past in his statement; which, however, is valuable, as showing the great power he ascribed to the tongue. Thus, however, we can confidently repeat: The instrument is helped, the structure may be cured.
Besides, this limits the question to the com-
parative practicability, advantage of dilatation.
Dilatation (external incision). Both are good, each adapted to its peculiar case. In simple cases the former ought to be tried. In doubtful cases, the rule will vary according as the practitioner has seen the new operation performed several times in it, or has not had opportunities of seeing its effects.

In the former case, if, from the history of the structure, careful observation of the symptoms of progress while introducing the directive, there be considerable doubt about success by dilatation, the operation by incision will be performed with confidence in its safety and success.

In the latter case, the practitioner will not according to his knowledge, give the dilatation a trial. After dilatation fails, on reasonable trial, but will often fail, he has the consolation of knowing that by the alternative operation, a safe effective cure is maintained to be certain. By the first surgeon of the day, by many hundred practitioners, I mean, by all those...
those who have graduated in Edinburgh, since this operation was proposed, by those who have seen its effects when from time to time it is tried. It will then probably feel justified in performing the operation. Should he still doubt, I cannot think he would be justified in refraining from recommending the patient to a surgeon, who can operate with confidence. But of this I am convinced, that the practitioner who does give the operation a trial, will, like an author after first publishing, soon perform it again, take his steps hesitantly after each observation of its effects.

The greatest advocates of castrics, internal incisions to readily admit that opening the wuttha by the penisnum is an operation which will be occasionally required, is a rational, surgical, scientific procedure. This is readily admitted, when the old, highly dangerous "sharpe of the linte" is referred to. But
their language is changed, when the opera-
tion is supposed to be performed with
the guide of a director. Then it is all
but murderous. As well might they mi-
tain that early without further, Commit
or chart is a rational scientific
mode of proceeding, that following the one
by Helm. Lessprach is dangerous indeed.
As well might it be contended that
we should lay open a rock in search
of a precious vein, instead of first
making a shaft, as a director where
to cut.

Most of the other objections
to the operation, such as alleged pain,
haemorrhage, purges etc., will be best an
swered in considering the effects of the
operation itself.
Two others have been lately raised by
Mr. Wade. These are
1st. That the thickened texture is not
removed by the knife;
2nd. That the natural mucous lining
membrane forms only a small part
of
of the passage, the greater part of the new channel being made through the condenser.

These he has only attempted, without the slightest attempt at argument, in their behalf. It may consequently be sufficient to state that they are both incorrect. In regard to the first, it would not be difficult to explain in principle how the thickened texture is removed by the knife, not indeed directly, but indirectly. That it is removed, however, will be more clearly shown by analogy. In the case of fishes in this or that there, is invariably great thickening of texture. Then, however, the knife diverts it, between the external tirsternal openings, all the thickened texture shortly disappears, a rapid permanent cure is effected. The same process is brought about by division of the thickened texture, in Stricture.

In answer to the 2d objection, it may be stated, that the channel is not new, as Mr. Wade assumes. After the use of the caustic other means, such as the incredible
one of forming a passage, by thrusting or tearing through the thickened tufette, the channel may be new. But after incision the channel is the same as before incision commenced, existing, in many cases, entirely of the natural lining membrane; restored to health by absorption of the deposit in its interstices, by the contractures, resulting from that deposit, no longer existing, when it is removed. Where the channel does not consist entirely of the original lining membrane, it is in consequence of a still greater dilatation of the canal being effected, by the wound being caused to heal by the second intention, as to let in a small piece of new channel, formed by the cicatrization of the granulations, the use of the tongue, in this case, being afterwards kept up during the cure, to prevent that cicatrization from contracting.

The operation is simple, certain, safe, and of effectual

1. Simple.
1. The Operation is Simple.

Nothing can be simpler than this operation in skilful hands.

It consists of placing the largest ground director the structure will admit, cutting into the groove behind the suture and turning the knife forwards, exactly in the central line, till the hour-glass convoluted at each side is divided. But though it is simple, it is not easy. The difficulties are great, have been well enumerated by Mr. Syme. It is very difficult to pass a small director through a tight structure. Mr. Liston declared it the most difficult operation in surgery. It is difficult to cut into even a large groove in a thickened, intubated perineum. By many it is considered the most difficult step in the lateral operation for lithotomy, to cut even into the large groove employed. But these difficulties are not to be mentioned to the accurate anatomist and skilful, experienced surgeon.

2. Persistence.
2. The Operation is Certain.

It has now been performed by Dr. Syme upwards of twenty times, in no case has it failed. Accounts are continually being published of successful cases by other surgeons, who approve of the operation; and whatever the objections may say to it in other respects, it is impossible to maintain that it does not, in its very nature, remove the Structure.

3. It is Safe.

This is the recommendation which has been chiefly aimed at it. When it is stated that it is perfectly safe when properly performed, it is but reasonable to except those unfortunate constitutions, in which even a scratch is not perfectly safe. If these be not excepted, it is impossible to state, with truth, that any use of the Knife whatever is safe. It has frequently happened that venesection has induced phlebitis tended in death.
Professor Simpson mentions having seen two such cases in one week. A butter-meat
floor (St. Allen's) died two years ago from inflammation set up by a slight cut in the
hands, while cutting bread. Deaths from
hemorrhage have frequently followed the
bite of a leech, the extraction of a
tooth. Yet no one will maintain that
such operations are dangerous. The ques-
tions, which have been asked by way of objection, “Who could ensure his patient
from the occurrence of erysipelas or phthisis?”
“Whatdegree of human care or forecast
could he trace up the cords of life to the
enduring point, as always to guard against
a fatal prostration?” are simply nonsensical.
When the operation is main-
tained to be safe, safety from the ordi-
nary results of the use of the knife in
operation can alone be legitimately under-
stood. These results have been all attributed
to it. The chief are pain, collapse,
hemorrhage, and rigor & constitutional
disturbance.
1. Pain. This need not be much regarded, as it is usually very slight, and as if the patient is very susceptible, he may be spared it by inhaling Chloroform. I have frequently heard the patients, who had declined the Chloroform, declare, that they had often suffered much more from the feeling of a rope.

2. Collapse is said to have occurred in London. It is never seen here; and I can only suggest, in explanation of it, that the patient may have pooled into it through grief, from knowing that a dreadful operation it was considered by the operator this friend.

3. Haemorrhage has been more insisted on than any other objection. The patient has not met with it. In the 20 or 25 cases I have observed, I have never seen an ounce of blood lost either before or after the operation. The usual quantity altogether does not exceed half
half an ounce. When we see statements of frightful hemorrhage having occurred, we have a choice of only two conclusions—either that he who makes them has applied to his imagination for his facts, or that the operation has been incorrectly performed. If the incision be in the mental line, as it ought to be, how can anatomy or pathology explain where all the blood comes from?

4. Rigors: Constitutional disturbance.
   The latter I have never seen. A rigor does occasionally occur in the patient (making water for the first time after the catheter is withdrawn). It has been already stated, that this sometimes occurs after each introduction of the simple Jamie. When occurring after the operation, it has been attributed to the urine happy for the first time along the opened canals.

It may be accounted for otherwise by a peculiar sympathy which seems to exist between the excretive apparatus and...
system, so that any lesion of the former withdraws to a rigor. Professor Simpson says this rigor is a frequent occurrence in rapid dilatation of the os turcica. While attending an accouchement lately, a grandmothe expressed an anxiety with that the lady would soon take a good drive. But young accouchings get a fright from a rigor occurring as the head clears the vault. In these cases, as in the operation for structure, as the rigor does not recur does not followed by any constitutional disorder, it is of no consequence. All that is required is, at first, some slight diffusible stimulant.

In conclusion, of upwards of 50 cases operated on by Professor Syme, not one has died. While the statement made, I believe by Dr. Acton, in the Lancet, that all the cases of Syme's operation performed in London, had died, most instructive as regards the old operation, is utterly worthless in reference to the new, as it is afterwards stated, in the same article, that
that, to his certain knowledge, it had only been performed where the uterine was "quite unpalpable"!

4. The Operation was quickly
In inveterate Strictures, the
time required for dilatation is often very
long. I believe complete dilatation in
such cases can rarely be accomplished
in less than 2 months. The cure is
generally complete in 3 weeks after the
operation. This, if itself, is in many
cases a great recommendation; it suggests
the propriety of performing the operation
in most hospital patients, for whom, as
we shall shortly see, such a proceeding
is, in many other accounts, desirable.

5. The Operation is effectual.
The passage is immediately
reopened to its normal size; after a
fortnight it is generally entire. A consi-
derable time has now elapsed since the
first cases of operation. Not one of these
has
has had a recurrence of the structure.
So far as experience goes, then, it
may be concluded, that the patient is
as safe from structure as a man who
has never been afflicted with it, and
not fear a recurrence, unless he expose
himself to a cause, which would have
excited structure in any other healthy
man.

Such being the advantages
of the operation, it should be performed
in all cases where, the longer totally
failing, the only other alternative is
some one of the operations shown to be
so uncertain, dangerous, unsatisfactory.
These are the cases for which it is pro-
posed by Professor Syme.
I am inclined to think the practice
might, with advantage safety, be much
further extended.
The longer he is always treated the first
time a structure is treated, when the
structure returns, it is a sign that it is
not of the simple kind, but is generally
aggravated.
appreciated. In all such cases, I think the operation should be performed. If I had myself a kidney, which troubled me by returning after dilatation, I should insist on the operation being performed.

In all cases where caustics, internal medicaments have been used, it will be found the proper, and only effectual, cure.

The operation being proved to be safe, speedy, effective, it comes to be a question, whether, in hospital practice, we should not go a step further, but once perform the operation.

In hospital patients, besides the ordinary disadvantages of dilatation, its uncertainty, its risks in unpractised hands, its afford no protection against relapse. There are other reasons peculiar to the class, too often to the individual, which forcibly suggest the propriety of some more speedy, effective treatment. They are impatient of delay, go on as soon
in their opinion of its advantages.
To the former, few of this impatient class of patients will object; while to the latter few will object, more especially as in the former, they believe themselves cured, when the wine flows in a tolerably good stream; whereas, in the latter, they remain till the wound is healed. Indeed, the patients themselves, who are under treatment in this Hospital by dilution, seeing the superiority of the operation in this, as in other respects, give the very best evidence as to the attempts by frequent entreaty to have the operation performed.

It has been objected that the operation, even as proposed by Professor Syme, is too free a use of the knife; that it is an unnecessary operation; that, as such, it will bring surgery into discredit. Were this the case, it would never have been introduced by the Edinburgh School. But it is not an unnecessary operation. To show this, it will be proper
to endeavour to supply a blank left by
the objectors, by giving an idea of what,
though in one sense necessity has no
law, we mean by the law of necessity.
Operations. Whenever, without present
or future constitutional or local effects
of constancy of evil, we can relieve
pain, shorten, check or favourably alter
the course of disease, or prolong life by
the use of the knife, the knife should
be used; it is only withheld by the
timidity of ignorance or instruction. At
least, I think it will be granted, that
any particular operation which fulfills
all these conditions is a necessary opera-
tion. On reviewing what has just been
said, it will be proved that this op-
eration does fulfill them. Indeed, if the
knife is objected to here, there are no
cases of disease in external parts to which
the objections will not apply more
strongly.
Monthly Journal July 1852
It only remains to consider the case of the structure very extensive that of several structures existing in the same canal.

In this country, the structure is very rarely so extensive as to require an incision of more than an inch for its complete division. When, however, as occasionally happens in the West Indies, the structure is extensive, the most interesting instructive cases recorded by Mr. Fieldes, in which the incision extended between 2 and 3 inches, show that the principle of dividing the whole contraction may be safely, successfully followed out. Such structures only occur in the membranous portion of the urethra, where there is a sufficient bed of soft parts to receive the adherent reparative material. In the pendulous portion, where such a bed does not exist, incisions of this length would heal with difficulty. Fistulous openings would be common. But, as contractions of such length never occur there, it may be generally stated that
that the whole contraction must be incised.

When there are numerous separate contracting it is generally found that the one most posterior is the most inverturate, and that when it is divided, the others quickly abate.

 Occasionally, owing to complicating invasion is not to be performed. Then structure. Stone exist together, as the irritation of the latter generally gives rise to relief, the former, if the surgical principle of removing the irritation be followed, its effects will quickly disappear. In some cases, however, it may happen that the structure is the cause of the stone, the obstruction in the passage favouring the deposition of salts. Now, in the same principle, the converse operation is to be performed; but, as will be readily understood, it will not always prevent the necessity of an operation for removing the stone.

When the danger of death...
from retention is imminent, the bladder cannot be otherwise relieved, which is very rarely the case, the bladder must be punctured. The weight of evidence indicates the triangle behind the prostate as the proper place for puncturing.

Conclusions

1. That Sycz Operation being simple, certain, safe, speedy, effectual, is the only means warranted.
2. That it should be employed whenever the forceps fail.
3. That there seems good reason to perform it in all cases of hospital practice, certainly in all previously treated.

I have now concluded my talk. I might have quoted many cases that have been published, but cases have been published in sufficient numbers to convince any one open.
to conviction; while no argument will be sufficient to overcome prejudice or wrongful-mindedness, it should have briefly extended my paper already known that I could have wished. The shipments of the treatment, the benefits of which I have endeavored to establish, nothing through the distorting glass of their preformed opinions, will not believe what they see, because they have made up their minds that there is nothing to be seen, else they themselves must have long ago seen it.

James McMorrie.