

A lecture, delivered before the Royal College of Surgeons : being a commentary on Mr. John Hunter's Preparations of the diseases of the urethra and bladder / by Charles Bell, F.R.S.

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A
LECTURE,

DELIVERED BEFORE THE ROYAL COLLEGE OF SURGEONS:

BEING

A COMMENTARY

ON MR. JOHN HUNTER'S PREPARATIONS

OF THE

DISEASES OF THE URETHRA AND BLADDER.

BY CHARLES BELL, F.R.S.

LONDON:

PRINTED FOR LONGMAN, REES, ORME, BROWN, AND GREEN,

PATERNOSTER-ROW.

1830.

LECTURES
ON
ADVERTISING

Among the principles which should direct the advertiser in his operations on the market cannot be said to be unknown; yet they are very imperfectly diffused, and the practice consequently is undetermined, varying according to the taste of every advertiser. There are some points which the advertiser has to suggest to their consideration in the following Lecture, and especially the necessity of preserving the market, and of the method in all operations performed on the market.

It will be the Author's apology for publishing an old lecture that he believed it to be the object of many of his friends to read it; and it must be allowed that he could not have had a higher excitement to exertion than on such an occasion; nor a better opportunity of enforcing just principles, than in exhibiting the preparations made by Mr. Hunter's hands.

ADVERTISEMENT.

ALTHOUGH the principles which should direct the surgeon in operations on the urethra cannot be said to be unknown, yet they are very imperfectly diffused ; and the practice, consequently, is undetermined, varying according to the fancy of every ingenious young surgeon. There are some points which the Author begs leave to suggest to their reconsideration in the following Lecture ; and especially the necessity of preserving the natural membrane of the urethra in all operations performed on the canal.

It will be the Author's apology for publishing an old lecture, that he delivered it before the College of Surgeons as their Professor ; and it must be allowed that he could not have had a higher excitement to exertion than on such an occasion, nor a better opportunity of enforcing just principles, than in exhibiting the preparations made by Mr. Hunter's hands.

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A LECTURE.

GENTLEMEN,

WE next advance to the examination of the preparations of stricture of the urethra which have been left to us by Mr. Hunter; the work of his hands, and the foundation of his reasoning on this very important subject. We may, indeed, in looking upon this suite of morbid specimens, consider that great surgeon as still addressing us in very emphatic language. Combined with what he has left us in his published works, these preparations are of inestimable value; and it is for you to take advantage of a treasure generously devoted to your service, and, through you, to the interests of humanity.

This is a subject of great practical interest, if you take into consideration the extent and intricacy of the urinary canal; the frequency of complaints arising out of this intricacy; the great suffering that attends disease in these parts, and the miserable death which too often follows: above all, when it is granted, as certainly it must be, that a delicate hand, directed by sound judgment, can do much for the relief of the sufferer; while a rude and unskilful interference often proves fatal.

It may serve the ends of morality to inculcate that these diseases come from incontinence and vice: but the conclusion is not always just. The number is very great, of eminent men, philosophers, and men of letters, who, without vice or indiscretion, have lost the enjoyment of life, or died miserably, by disease of the urinary organs. The effects of sedentary habits, of long voyages, of warm climates, and of accidents, swell the list of those who seek relief from such maladies in a condition the most pitiable.

The cases and observations, published in books which are in your hands, present too favourable a view of this class of diseases. It is needless to enquire into the motives which have led to this; but it is essential for you to know that in strumous habits there is a proneness to disease in the mucous membrane of these passages, which a slight excitement will render so formidable as often to lead to fatal consequences. I deem it a point of the very first importance to make you aware of this proneness to disease in the urinary passages of scrofulous persons. Be assured that it will often defeat the object of your operations, and render the effect of remedies, which in the reports of cases are represented as infallible, most disastrous. Once for all, then, I say, that the medical treatment of the patient in these complaints is of the first moment; but that is not the proper subject of this Lecture; and I shall proceed to explain to you these preparations, in the order in which they are placed before us, and to make such remarks as they naturally suggest.

I. The bougies used by Mr. Hunter will naturally first attract your notice: “ *Portions of bougies with impressions of stricture upon*

them." (Nos. 735, 736.) — I do not doubt that in these we have the very groundwork of Mr. Hunter's similitude, when he says that a stricture produces an effect as if a piece of packthread were tied around the canal. You perceive the effect to be as if a thread had been drawn round the wax bougie. Sometimes, as here, we also observe that the indentation does not complete the circle, but is chiefly on one side.

Let me here introduce a practical remark, before I enter upon the theoretical questions. The simple stricture is, to a considerable degree, elastic; consequently, the wax (or still more the catgut) bougie, after being admitted into the stricture, and so remaining for a short time, is indented or impressed by it. Hence it frequently happens that, after the bougie has been gently introduced into the urethra, the mischief is done on withdrawing it; the bougie sticks, and, being rudely withdrawn, a part of the membrane is torn. In the evening there come on shivering and pain, and suppression of urine follows. I am in the presence of a gentleman who knows full well that death has followed from such a cause, notwithstanding his remonstrance against the practice, and all his skill to counteract the consequences. Take care, then, Gentlemen, to remember this aphorism, that *as much mischief is done by the withdrawing of bougies as by the introduction of them.*

II. You will, in the next place, attend to the preparations in spirits which exhibit strictures in the urethra.

We have here no strictures which are in what I had almost called a natural state, meaning, in a state undisturbed by the operations of the surgeon. I have several in my own collection, and

such, too, Mr. Hunter must have seen, for he describes the thing exactly, — as a filament firm and unyielding in comparison with the natural membrane, and running round a part or the whole of the canal.

It is of the first consequence for the right understanding of this subject, that we should determine what this filament is. I advance with some unwillingness to the consideration of a question in which I must deny the correctness of the doctrine held by Mr. Hunter. You are aware on how many occasions I acknowledge the obligations of the profession to this celebrated man; with what confidence I trust to his facts, as coming from one above all deceit; with what delight I, in general, follow the course of his reasoning. Let it not, then, be said, because on one subject I follow his example rather than his authority, by relying on an opinion formed after long and careful investigation, rather than yielding my assent to what I think wrong, that I am presumptuous in differing from our great master; who has himself taught us to be diligent observers; both to think and to act. Mr. Hunter taught that the urethra — the internal mucous membrane of the urethra — is muscular. I affirm, on the contrary, that it is not muscular. There is no example of a muscular mucous membrane. Muscular structure is always a tissue by itself. Muscular fibres always form a distinct coat, and that coat is always exterior to the mucous coat, or to the inner membrane of hollow tubes. It is so in the arteries, in the intestines, in the œsophagus, in the bladder, and in the urethra itself.

Again, there can be no use for these supposed muscular

fibres. In the transmission of the urine, as long as there is a continued stream, no exercise of muscular power would accelerate the flow more than it would retard it. And in the other function of the canal, the powerful *ejaculator seminis* comes into action, rendering the operation of these supposed muscular fibres superfluous.

The best argument of all is, that we do not see the muscular fibres; and that, although morbid excitement develops and magnifies similar texture in other organs, the most violent excitement of that nature has no effect in making muscular fibres visible in the urethra.

You see here, in these specimens, (Nos. 739. 746. 752. 755.) that the bladder has become as distinctly muscular as the glutæus itself, owing to the continual micturition. This is a familiar appearance; but we never see such muscular texture in the urethra.

III. On Mr. John Hunter's death, Sir Everard Home, being in possession of these preparations, and of all Mr. Hunter's papers, the profession received that gentlemen's opinions as those of Mr. Hunter; and the writings of Sir Everard Home, on this subject, have been taken too implicitly as conveying the sentiments of Mr. Hunter. Sir Everard Home says distinctly, that all strictures of the urethra are owing to contractions of the transverse fibres of this canal; and, describing these fibres as muscular, he explains stricture to be a diseased action of them. He states, that one of those fibres is capable of such morbid contraction that it cannot again relax; and that this fibre may be even further stimulated to contraction, and form at once a permanent and a spasmodic stricture. Now Mr. Hunter says, that the first kind of

stricture which he will treat of is the true permanent stricture, arising from an alteration in the *structure of part of the urethra*, — no doubt such as the instances we have here before us. He speaks afterwards of the mixed case, and then of the true spasmodic stricture. I hold it to be utterly impossible that a man could be actively employed in preparing these varied morbid specimens, without perceiving that stricture is the result of inflammation. There are passages of Mr. Hunter's work where he describes the stricture to be *whiter* than any part of the urethra, and *harder* in its consistence. Such expressions are borne out by the preparations before you, but are quite inconsistent with the notion of the morbid action of a muscular fibre.

I take credit to myself that, at an early period, I saw the weakness of the arguments of Sir Everard Home. I have ever felt great respect for that gentleman, on account of his meritorious efforts from year to year in maintaining the respectability of the profession by connecting it with general science; but I could not give my assent to his notion of the spasmodic state of the supposed muscular fibres of the urethra.

This is not a light matter. It is incredible into what errors of practice a false hypothesis will carry us. It was never asserted, however, that Sir Everard Home obstinately maintained his opinion. We find all that is said of the circular fibres given up in favour of longitudinal muscular fibres in the membrane of the canal. These are elastic, but certainly not muscular, fibres. I do not detain you with any proof of this; but I cannot help lamenting that, upon the former hypothesis (which the profession allowed

to remain till it was thrown down by the original inventor), a wrong practice was founded and propagated, and is still continued. You still hear daily of *spasmodic stricture*; and this language necessarily implies the adoption of the opinion that the transverse fibres of the membrane of the urethra are in their nature muscular. It would be well were that all. *

IV. We have specimens here of strictures in the urethra in a more complex state. (Nos. 749. 752, 753.) By a process of inflammation often recurring in the same parts, coagulable lymph has been more copiously secreted; the canal has, in consequence, become irregularly contracted, and long portions of it rendered callous. Here the coagulable lymph has incorporated with the mucous membrane, and even the spongy body of the urethra, and the softness and pliancy of the textures have been quite destroyed.

In such instances, it is the continuance of the same process of inflammation, aggravated by improper methods of cure, which produces the disturbance. In witnessing such things, it is said that these contractions arise from inflammation, and are not the "true stricture." By this it is meant that this is not the stricture formed by muscular contraction, but that which incidentally arises from inflammation. Be assured that all strictures proceed from inflammation in the passage. The cause of the ready belief in the

* This is not very precisely stated, since Sir Everard Home, in giving up the idea of circular fibres, and affirming that the fibres are longitudinal, has retained the original theory, and conferred the spasmodic action which produces stricture upon the long fibres. So accurately has he transferred the action from the one class to the other, that he even says that one of the longitudinal fibres may contract by itself, and thus cause a stricture upon one side of the canal.

muscular and spasmodic nature of stricture lies in the deceptive feelings of the patient himself. The urine flows irregularly, sometimes in full stream, sometimes restricted. He is subjected to a painful contraction, apparently in the very seat of the stricture. Sometimes a bougie is passed easily, sometimes with difficulty. What, then, is more natural than to ascribe these changes to the different conditions of the stricture? But all these different sensations are correctly to be attributed to the condition of the surrounding muscles of the perineum, which have an intimate sympathy with the state of the urethra and neck of the bladder. It is the practice of some to use a small portion of caustic, introduced on the end of a bougie, with which they touch the stricture, the effect being, as they explain it, to allay the spasmodic contraction. But the true explanation of the effect is, that the caustic destroys the morbid sensibility of the part, and then the urine passes over it without exciting the contractions of the perineal muscles. But of this more presently.

It is very essential that the surgeon should know that a stricture is always accompanied with more or less inflammation, especially at the posterior part, in consequence of the push of urine against it: hence those spasms which are excited in the muscles of the perineum, and in the neck of the bladder; hence, too, it comes as a necessary consequence, that *a stricture is always progressive*.

With respect to the opinion that a stricture must be burned out effectually, to destroy the *disposition* to action, it is an error arising from the same theory; for as inflammation, and not spasm,

is the cause of stricture, so will a stricture continue to be troublesome, and to increase, if the inflammation be not subdued. And as to the return of a stricture, it is a consequence of leaving the part inflamed, or subject to inflammation, though the canal has been dilated.

V. I take up another preparation, in order to show the effects of caustic on the urethra. (No. 759.) Here, the caustic having been applied, the membrane of the urethra has been destroyed, and the canal widened. This seems most satisfactory; but I pray you to give your attention, and all the powers of your understanding, to this practical question.

The natural membrane of the urethra is admirably suited to its function, as all the natural membranes are. The urethra possesses that fine elasticity by which it yields to the forward pressure of the urine, on the slightest impulse; and yet closes perfectly, so as to leave no open canal or tube, correctly speaking. You know that, by the process of inflammation, coagulable lymph will be thrown out into the common cellular texture, and that it will become organised. In this manner may a portion of the urethra be restored by the formation of a new membrane; and this we sometimes accomplish when the urethra has been entirely destroyed. But such new membrane is never a perfect substitute for the natural one; it wants the fine elasticity which belongs to the original membrane of the urethra. The new formation has a disposition to degenerate, to become firm and permanently constricted; and so it happens that this new portion of the canal must be frequently

distended by bougies, otherwise it will not remain a permanent canal.

A similar process is set up when the urethra is destroyed with caustic. The stricture is destroyed, but with it a portion of the original membrane also. For this portion taken away, a process of inflammation furnishes a substitute. But the character of the original part is lost: a different disposition prevails in this new part; and although the canal be sufficiently large, it requires, to the last period of life, to be stretched by the occasional use of a bougie.

VI. When a patient suffers by the frequent return of stricture, it is easy to persuade him that he will never be entirely well, until the stricture shall be eradicated by burning — until it be “*burnt out by caustic!*” But this is a fallacy altogether. You enlarge the canal, and cause another portion of the wall of the urethra to be built up: but this has not the “disposition” of the original membrane (and here we use the language of our great preceptor); it will retract and become condensed, and gradually diminish the calibre of the canal, and be, in short, a stricture.

VII. I hold up to you a preparation (No. 693. of the old catalogue) which shows the orifice of the urethra to have been the seat of chancre; in consequence of which, the canal at this part has been greatly contracted. A bristle is introduced, to show the degree of stricture.

What should produce a contraction here? Is it not the natural consequence of the inflammation which accompanies the

ulceration? The natural dilatability of the orifice proceeded from the looseness of the texture, which, like the meshes of a net, admits of stretching. To this looseness of texture has succeeded, in this preparation, the firmness consequent on the deposit of coagulable lymph, and the formation of a cicatrix. The texture has suffered a change, just as the introduction of starch between the threads of cloth renders it stiff and unyielding. Unless you can undertake to cause the absorption of the coagulable lymph which has produced this condensation, you cannot remove the stricture. The membrane, deep in the canal of the urethra, when it has been long or severely subjected to inflammation, is condensed after the same manner; and this condensation remains like the cicatrix of the skin when the inflammation consequent on a burn has destroyed its original pliancy.

What the chancre does to the orifice of the urethra the surgeon does with the caustic to the stricture: in destroying the part by deadening it and causing it to slough, he excites that inflammation which, by depositing coagulable lymph, affects the elasticity of the membrane.

VIII. I must remind you that the use of caustic was introduced by Mr. Hunter in a case very different from that in which it is recommended in modern practice. It was in a case of total obstruction, when no bougie could by possibility be introduced, that he thought of destroying the stricture by inducing a slough. This is altogether a different matter from the use of the lunar caustic in cases where a bougie can be introduced through the stricture; for here it is my duty to tell you that it is possible, and most proper, to

dilate the stricture gradually by the use of the bougie ; and it is very seldom that in such a case the caustic is necessary or advisable.

In such a case as that described by Mr. Hunter, in which he first used the lunar caustic, I am bound to say, unequivocally, that the practice is dangerous. You will readily understand how it is so, when I represent to you the actual circumstances.

Mr. Hunter met with a case in which he could not wedge the bougie into the stricture. You know what at this time was the practice — to introduce a bougie which had some elasticity ; to tie it in, and so to leave the extremity pressing against the stricture, until it made its way through by ulceration of the part against which it pressed. This was a most dangerous practice, a mode the most likely to produce a false passage. Mr. Hunter's use of the "armed bougie" was mildness to this. He first used red precipitate on the point of a bougie ; afterwards he introduced it through a canula down to the stricture. Then he fastened a piece of lunar caustic on a wire with sealing wax ; afterwards he had recourse to the canula, with the portcrayon at the end of the wire, into which a portion of caustic was introduced, and carried down to the stricture. I believe he latterly used what is termed the "armed" wax or "caustic" bougie, which you find described in Sir Everard Home's work. Mr. Hunter used this lunar caustic for the purpose of deadening, and causing a sloughing of the part to which the caustic was applied. In his first case he was successful ; and he continued the practice, as it appears, during the period of his useful life between the publication of his work and his death.

Nevertheless, you have no authority from Mr. Hunter to use the caustic in cases where you can pass a bougie. In respect to the case where the stricture is so narrow, that the point of the wax bougie cannot be moulded so as to enter it, I must remind you that the process of causing the part to slough off by the application of the caustic is necessarily attended with inflammation, and that inflammation with swelling; the consequence too often is total obstruction of urine; and if this prove only temporary, both patient and surgeon will have reason to congratulate themselves.

This is the case which requires the division of the stricture with the knife. But before I more particularly take notice of this condition of your patient, let me answer a difficulty. A surgeon says, with truth, "I have cured stricture of the urethra," or, "I am in the common practice of curing stricture of the urethra, with caustic, and no untoward consequence follows." I answer, You suppose that you have cured the stricture by the caustic; but you have mistaken the means by which you have really accomplished your end: you are principally indebted to the bougie. The application of the caustic has diminished the tenderness of the surface, and has taken away the excessive and morbid irritability; it has not produced a slough. It would be more correct to say, that you have proceeded on the analogy of a caustic application to an ulcer of the cornea or to an irritable sore, than on the principle which directed Mr. Hunter's practice.

When the lunar caustic is applied in this gentle manner, its effect is the same on the sensible and inflamed membrane of the urethra as when applied, in common practice, to an external irri-

table sore. But when applied in such quantity, closely and for a length of time, to the membrane of the urethra, so as to produce a slough, the obstruction and the attending symptoms become aggravated to an alarming degree.

When the modern surgeon is practising the use of the *Argentum nitratum* for the cure of stricture, he only diminishes the sensibility of the part, and thereby renders the muscles less irritable. He enables the patient to bear the mechanical operation of the bougie; and, after all, he cures his patient by dilatation, not by that process of inducing mortification and slough which was the mode proposed by Mr. Hunter. On the whole, then, Gentlemen, I conceive it safe, and sometimes very proper, to use the lunar caustic to an irritable urethra, on the same principle that we use it to ulcers. But I hold that we ought not to use it to produce a slough; for a slough is a destruction of the natural membrane, and is attended with cicatrix and condensation of the surrounding parts, which never produce a perfect substitute. If, on the contrary, the bougie can be introduced, so as gently and very gradually to dilate the passage, then has the patient the best chance of a permanent cure. I am aware that I am opposed by very high authority in the profession, as well as by the very highest in Mr. Hunter: but their opinion, that the radical cure is to be effected by caustic, is bare assertion; whilst I have given you reasons for the opposite opinion.

IX. We have here several preparations which exhibit a fact of the utmost importance. (Nos. 749, 750.) Behind the stricture, the urethra is widened in an extraordinary manner.* You will per-

* The same may be seen in the accompanying Plate.

ceive that, whilst the bladder is singularly contracted and thickened in its walls, the whole extent of the canal, from the sphincter of the bladder to the back of the stricture, is enormously dilated. This, by the by, is another proof of the want of muscularity in the passage, and that the supposed muscular texture around the urethra has nothing in common with the *detrusor urinæ*, or muscular coat of the bladder, in the discharge of urine ; otherwise, those fibres, if they existed, would have partaken of the excitement and development which has produced so singular a change on the bladder, and they would have resisted the dilatation. But it is to the practical inference to be drawn from this fact that I beg your undiminished attention. If I could show you the trouble and expense I have been at to ascertain and demonstrate this fact by dissection, you might, perhaps, consider it with more interest.

I remember to have seen a surgeon puncture the bladder, as he thought : by dissection I afterwards ascertained that he had punctured the urethra ! and you see, by these preparations, how possible this is, from the large diameter of the canal behind the stricture. And thus we learn that, after a long-continued stricture, at a time when it is impossible to puncture the bladder, from its contracted state, it is perfectly possible to give instant relief, by opening the urethra behind the stricture.

The case to which I allude is this : — A man has a stricture so narrow that the point of the finest bougie cannot be made to enter it, much less can it be forced by the catheter. To burn it by the caustic is of no avail, since the process of sloughing is very slow, and the symptoms are urgent. The patient is making attempts

to pass urine every half hour ; his nights are spent in continual efforts ; he is incessantly on his knees, and can obtain no rest ; he becomes exhausted and feverish, and is in momentary danger of becoming delirious.

In such a case, you open the urethra behind the stricture with the knife, and the salutary effects are instantaneous ; for, by a curious law of the animal economy, the instant that the difficulty of passing urine is removed, the bladder remits its efforts, and, instead of being diminished in capacity, it begins to dilate more and more freely : every time that the urine is voided, there is more discharged, until the natural capacity of the bladder is restored.

But the operation is a nice one : the object being, not only to permit a free evacuation of urine, but to cut through the stricture, and to pass a catheter along the whole urethra into the bladder. The instrument is retained until the incision be healed, and the urethra regenerated.

X. On this latter subject I would detain you a few minutes ; viz. *on the regeneration of the urethra*. The operation which is performed for this intention may appear to be well done, when, in truth, it is very badly performed. The catheter being cut upon and brought out at a part of the urethra before the stricture, and the urethra then opened behind the stricture, the instrument is introduced into the posterior part of the canal and into the bladder. But, notwithstanding these appearances of success, there may be a defect here, in leaving a considerable part of the natural canal of the urethra unoccupied by the instrument : the point of it has been brought out anterior to the stricture, and introduced pos-

teriorly to it ; and thus a considerable portion of the urethra is necessarily lost. In due time, if things be favourable, and the patient's constitution good, a new urethra may be formed out of the cellular substance. But, for the reasons assigned in the early part of this Lecture, the new portion of the urethra is not permanent. It wants the peculiar character of the original membrane of the canal, and has a disposition to contract and degenerate.

It is for these reasons, that, in the right performance of this operation, it is necessary to cut across the stricture itself, and, if practicable, to leave none of the proper membrane of the urethra out of the track of the catheter ; and certainly the less that is left out, we deem the operation the better performed.

XI. In all operations, then, on the urinary canal, it is especially necessary to save the natural membrane as much as possible. For the making of a new urethra, though an operation in which the surgeon may well boast of his dexterity, yet is ever imperfect in the long run ; and it is necessary to preserve the canal in a pervious state by a regular use of the bougie at periods more or less remote.

This injunction to be careful to save the natural membrane is a necessary corollary to the statement regarding the perfection of its structure ; for although every part of the frame contains cellular membrane, and may be reduced to it ; and although, out of the cellular texture, the dexterous surgeon may supply almost any defect ; yet there is an appropriation of each particular texture to its end, which prevents us from making a perfect artificial substitute for it ; and this is especially true of the membrane of the

urethra : therefore I say, on all occasions, whether you are operating with the caustic, or with the knife, preserve the membrane carefully, if you wish to accomplish the permanent cure of your patient, and look forward to his enjoying health independently of the frequent assistance of the surgeon.

XII. I shall detain you with only one observation more. In your operations on the urethra do not consider it professional to disregard giving pain. It is not from affectation of humanity I say this. I place the rule on other grounds altogether. While a certain degree of pressure or of distention, and consequent pain, will often remove the excessive and morbid irritability of the urethra, there is a limit to this mode of cure. And be assured that if you interfere with the passage when in a highly excited state, or do your operation rudely (putting aside the evil of mere suffering), re-action and inflammation will be the consequence. Now the whole object of this Lecture has been to show the evils arising from inflammation in contradistinction to spasm. I feel myself fully justified in saying, that whilst you give pain you excite inflammation, and that with the continuance of inflammation what has been called the "disposition to stricture" will remain.


THE END.

EXPLANATION OF THE PLATE.

THIS Plate shows the severe consequences of simple stricture. The man had been neglected, and suffered in silence; no instrument had ever been passed into his urethra. The stricture gradually increasing, in the manner described in the Lecture, § IV., the urethra became dilated behind the stricture; the walls of the bladder grew unusually thick, under the stimulus of continual micturition; and at length inflammation taking place on the inner surface of the bladder, a thick coat of coagulable lymph was thrown out.

The Plate represents a section of the bladder and of the os pubis. If the reader can conceive the exterior surface of the bladder dark with blood, the peritoneum inflamed, the coagulable lymph like thick cream, and the inner surface of the bladder, where it is exposed, vermilioned by inflammation, he will have a distinct idea of the state of the bladder of a man who dies of stricture. Considering these appearances, the surgeon will look on such a case with renewed interest and anxiety, when he recognises the symptoms of inflamed bladder. See Lecture, § IX.

- A. The penis in faint outline.
- B. The os pubis divided near the synchondrosis.
- C.C. The walls of the bladder thickened in an extraordinary degree.
- D. The urethra opened anterior to the stricture.
- E. The urethra posterior to the stricture.

 The stricture is here very distinct, consisting of that firm deposit which is a consequence of long-continued inflammation.

F. That part of the urethra which is within the prostate gland. It is represented as irregular. These holes are the openings of the prostate ducts ; and often the points of small bougies, when they have passed the only stricture, become entangled here, inducing the belief that there is another.

G. A bristle holding open the ulcerated hole by which the urine escaped. This man, after suffering in the manner too distinctly indicated by the state of the bladder, had a sudden bursting out of the urine into the scrotum, and after this lived only a few days.

H. A coating of coagulable lymph, formed on the inside of the bladder ; proving the violence of the inflammation.

From such dissections as this, and from experience, I have long since learned the necessity, before matters have come to this pass, of relieving the patient by the simplest means, and deferring the more severe treatment, necessary for the final cure, till an after-period. A patient with burst urethra, in addition to the extravasation of urine into the perineum, and consequent sloughing, may have to sustain all this mischief in the bladder. If then there should be a protracted and severe operation performed, he must sink under all these sources of irritation.