

*With Compliments of the Author.*

# THE ENDOSCOPE:

CONSIDERED PARTICULARLY IN REFERENCE TO DISEASES  
OF THE FEMALE BLADDER AND URETHRA.

BY

ROBERT NEWMAN, M. D.

NEW YORK.

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FROM THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK,  
FOR THE YEAR 1870.

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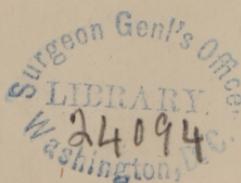
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## THE ENDOSCOPE.

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I need not at the present time offer an apology for presenting to the consideration of this honorable body the recent discovery of an instrument which, added to the repertoire of medical science, promises to be of incalculable benefit to a very large class of sufferers. However much science has already done to penetrate the hidden mysteries of disease, or released from the obscurities of hypothesis many of its phenomenal characteristics, we still must deplore its confessed inadequacy in many points, and know that the conscientious physician too often *timidly* enters upon a labyrinth of hope and conjecture in his efforts to relieve the distressed. Under these circumstances we must hail with enthusiastic welcome any aid by which the veil can be more and more lifted, or the obstacles further removed from a direct and palpable certainty in regard to our treatment of these classes of disease.

I confess my own entire and earnest conviction of the great value of the endoscope. Its usefulness in the hands of a skillful manipulator, in making the path of successful treatment extremely simple, direct and clear, is fully attested by facts. There are many reasons why adverse opinions upon the efficacy of the endoscope have been already entertained, and given to the public. It perhaps may savor of undue temerity in my advocating an opinion thus adverse to the opinions of those who are of such undoubted authority in the profession. Were the question of its importance simply one of theory and belief, I confess one might well have hesitated to enter himself before this society as its advocate; but my opinions are based upon clinical facts—the result of close investigation and earnest inquiry—and I should hold myself morally accountable, if I withheld the results of such observation and experience from the medical records of the day.

The difficulties in the way of full scientific appreciation of this instrument are many. In the first place, but few of these instruments are to be had, *properly constructed*, while there are

many of an inferior quality, or wholly worthless, even, in skillful hands that have been used in testing, and the result of these failures have been the condemnation of *the perfect* instrument. Too many have spoken from report, instead of actual observation, or have, from preconceived opinions, denounced the instrument as worthless, and we all know that no more determined opposition to any innovation, either good or bad, can be found than in the decrees of ignorance.

The endoscope I now show you, the original of Desormeaux, is somewhat complicated, as you will perceive, in its various arrangements, and requires exact adjustment and skillful movement to prevent its action being deranged. It needs study and long patient practice—to become an expert, and for this—few can have either the necessary opportunity or the endurance to achieve a skillful manipulation of the instrument. Some physicians have curiously, while admitting their discovery and cure of granulations in the urethra by its aid, yet denounced the instrument as insufficient, because it did not cover the treatment of other kindred diseases. They demand, simply, too broad a field for the scope of the instrument.

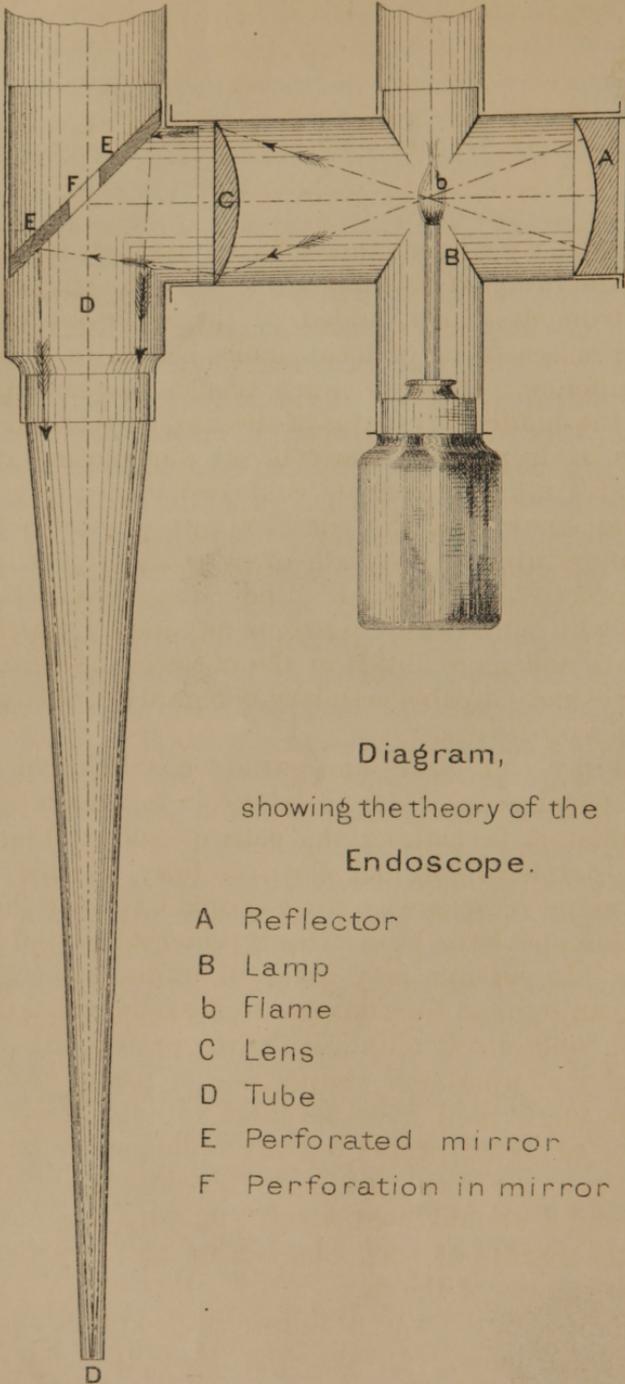
My opinion is not based upon theory, but upon evidence derived from close observation of clinical facts, and is valuable only as the result of careful investigation upon many cases, not only those occurring in my own immediate practice, but in the greater field of inquiry and facilities afforded me by hospital practice. It is admitted that the endoscope can scarcely fall into general practice, as a varied and extended experience is necessary in order to use it advantageously. I had almost abandoned it myself from having for a long time worked without success with other instruments; but when I obtained this one of Desormeaux, the result of such observation has been most satisfactory.

#### DESCRIPTION OF THE ENDOSCOPE.

The theory of the instrument is explained in the following diagram: Fig. 1. The metallic reflector A conducts the light from the lamp Bb through a lens C into the tube D; in this tube is a perforated mirror E, set at an angle of 45 degrees, which throws the light in another direction to the end of the tube D, by which means the cavity to be examined is illuminated. The operator can see through the perforation of the mirror F into the cavity to be explored. The Fig. 2 gives an accurate idea of the endoscope, and how it is used. You will per-



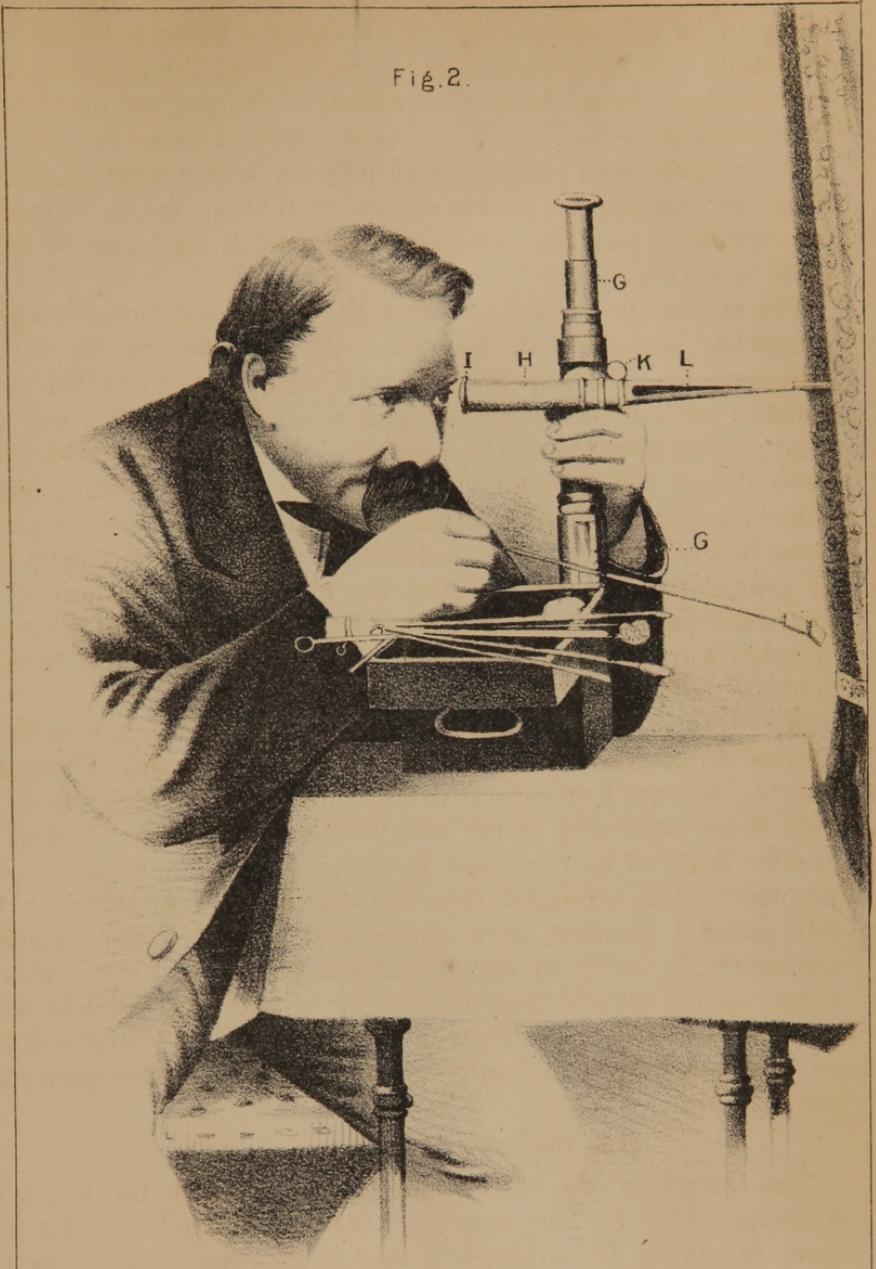
Fig. 1.



Diagram,  
showing the theory of the  
Endoscope.

- A Reflector
- B Lamp
- b Flame
- C Lens
- D Tube
- E Perforated mirror
- F Perforation in mirror

Fig.2.



### The Endoscope.

The operator examining a patient, ready with the right hand to make an application.





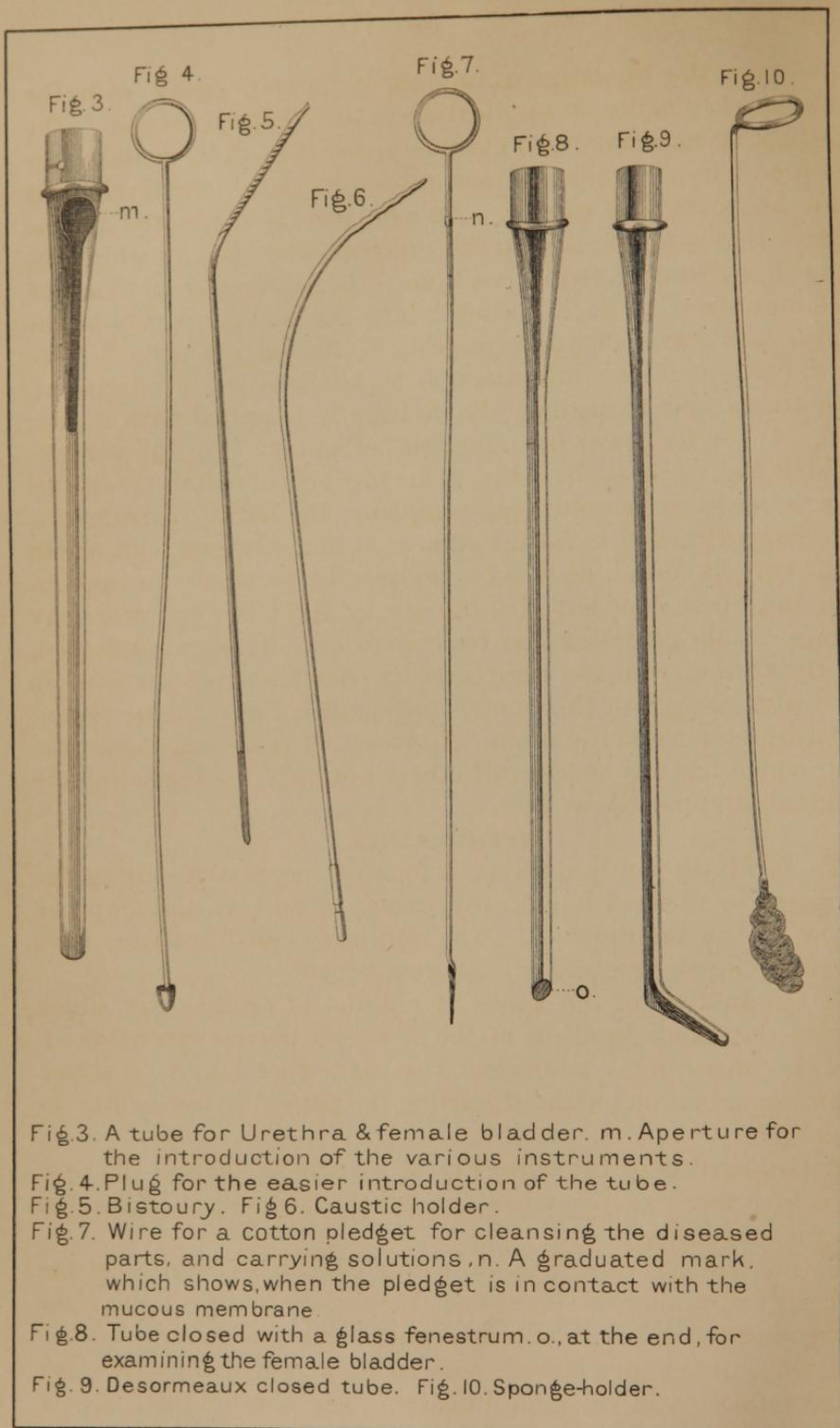


Fig. 3. A tube for Urethra & female bladder. m. Aperture for the introduction of the various instruments.

Fig. 4. Plug for the easier introduction of the tube.

Fig. 5. Bistoury. Fig. 6. Caustic holder.

Fig. 7. Wire for a cotton pledget for cleansing the diseased parts, and carrying solutions, n. A graduated mark, which shows, when the pledget is in contact with the mucous membrane.

Fig. 8. Tube closed with a glass fenestrum, o., at the end, for examining the female bladder.

Fig. 9. Desormeaux closed tube. Fig. 10. Sponge-holder.

ceive here the operator examining a patient, ready with the right hand to make an application to the diseased tissues. The instrument consists of two cylinders, one (Fig. 2, G) contains the lamp and its chimney and the reflector; the other (H) the lens and the perforated mirror. An eyepiece (I) is adapted to one end of this cylinder, and to the other a screw (K), by which the tube (L) is firmly fixed in position. These tubes (Fig. 3) are of different sizes, to be introduced into the several outlets of the body, and have an aperture (Fig. 3, M) on one side for the introduction of the instruments, to be used for applications, operations and cleansing. Each tube is supplied with a plug (Fig. 4) for its easier introduction. Bistoury (Fig. 5), caustic-holder (Fig. 6), and wires (Fig. 7) for pledgets of cotton for cleansing, so as to carry solutions, completes the set of instruments. The lamp attached to the instrument is the only part, with which fault may be found, as it is too simple for so costly an apparatus, and often does not give the strong light the operator may desire. This objection has been overcome by the modification of Dr. Cruise, who has constructed a paraffine lamp inclosed in a wooden case; but this contrivance makes the machine almost too clumsy for manipulation. However, it is the only modification which has any merit; all others are only apologies for the original, and mostly useless.

#### IMPROVEMENTS.

To facilitate manipulations, I found it necessary, during the progressive observation of my cases, to add to, and improve some of the instruments. The following modifications have given me much ease and my patients benefit:

1. Graduation of the tubes in eighths of an inch, by which means the exact location of the diseased tissues can be ascertained, correct notes taken, and the same spot found on subsequent examinations without hurting the patient by searching for such spot.

2. Graduation of the wire (Fig. 7, n), which enables the operator to know exactly when the other extremity touches the mucous membrane.

3. One straight tube (Fig. 8), with a glass fenestrum (o) at the end, for examining the interior of the female bladder; the glass preventing the entrance of water from it into the tube.

4. One curved tube closed, with a fenestrum at the curve, for the examination of the male bladder. The similar instruments in Desormeaux's case has a sharp corner (Fig. 9) which is very

objectionable, as its introduction tears the parts and hurts the patient so much, that its use aggravates the disease.

5. Holders with sponges at their ends (Fig. 10) to absorb fluids and cleanse the parts through the tubes.

6. Small cylindrical pieces of silver fitting into a caustic-holder. These pieces are dipped into melted crystals of nitrate of silver, and are applied to the diseased parts through the tube as the solid stick.

7. Small glass brushes as a better carrier of solutions through the tubes.

These instruments are manufactured by the well-known firm of Geo. Tieman & Co., 67 Chatham street.

#### AUXILIARY INSTRUMENTS.

I have ordered several glass instruments to assist in the treatment of the disease of the urethra as auxiliaries to the endoscope, and at times when, for various reasons, I found it better to omit the former instrument. These consist of short glass tubes of different sizes and forms, particularly for the female urethra, with an opening either at the end or on the side. Light is thrown into the urethra through these tubes by means of a mirror which is fastened at the forehead, as in laryngoscopy. This method of examination is a good substitute for the endoscope, but never can replace it. I use fluids in the form of sprays through these tubes, as applications by a new kind of glass atomizers, on the principle of one capillary tube inclosing another. These atomizers are also made to direct the spray in different directions—upward, downward or straight forward. These instruments possess many advantages over all other patterns in use now; they are always clean, do not decompose the solutions, never need repair, keep always in order, are cheaper than other contrivances and produce a finer spray, thereby not irritating the parts (Fig. 17). All my glass instruments are made by an artist in glass, W. A. Demuth, 16 North William street, to whom I am indebted for his skill and endurance in experimenting and working until he had accomplished my desire.

#### USE OF THE ENDOSCOPE.

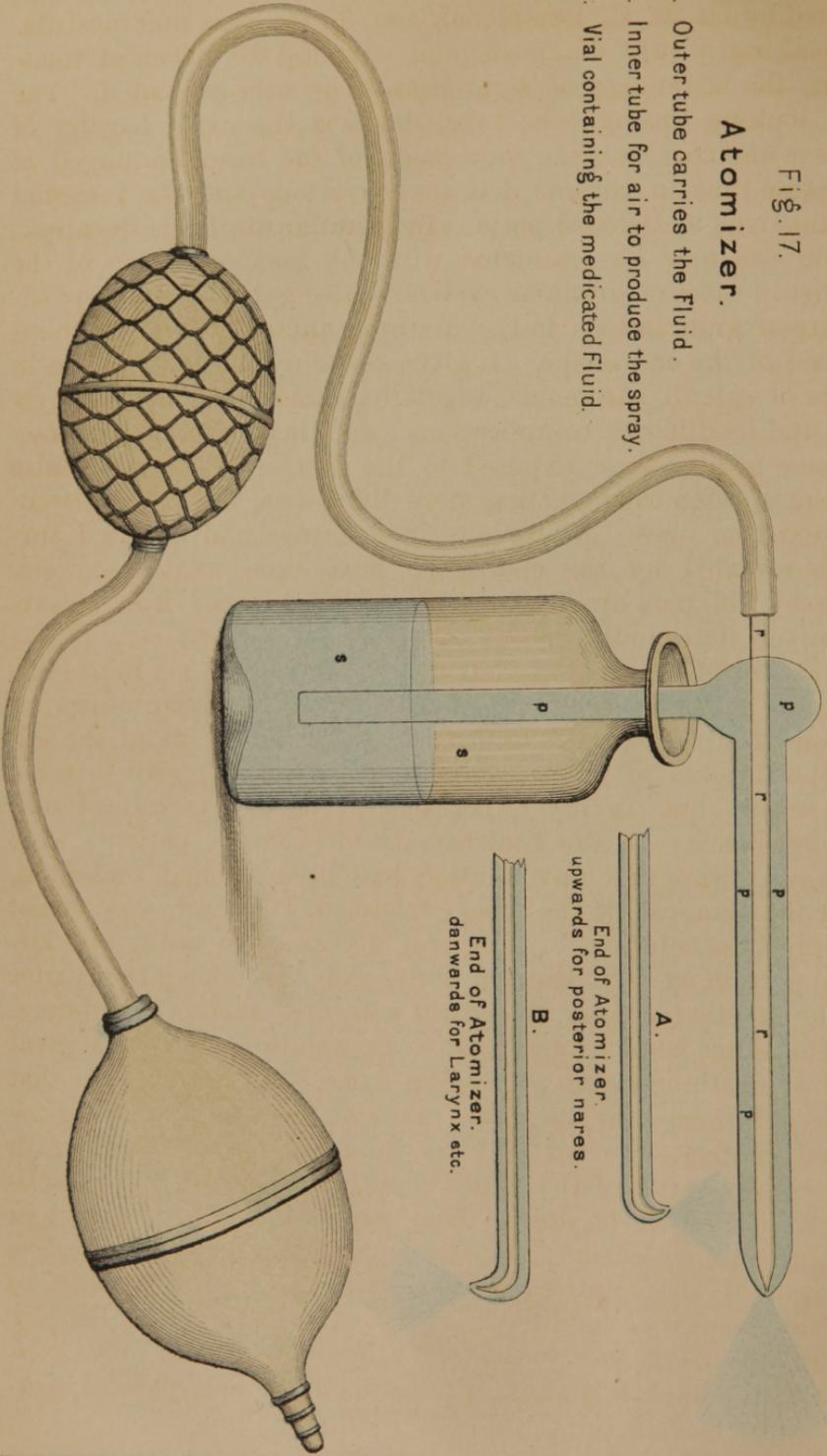
The endoscope, by means of its artificial light, its reflector and magnifier, at once clearly reveals to the operator the appearance of the mucous membranes lining the urethra, bladder and



Fig. 17.

### Atomizer.

- p. Outer tube carries the Fluid.
- r. Inner tube for air to produce the spray.
- s. Vial containing the medicated Fluid.



A.  
End of Atomizer,  
upwards for posterior nares.

B.  
End of Atomizer,  
downwards for Larynx etc.

rectum, and may also be used for the uterus, as fully demonstrated by Dr. D. C. Pantaleoni, and for the ears and nostrils. In making a sure diagnosis, and marking the effect of treatment, the advantage of sight cannot be over-estimated. The eye, looking through the tube, discerns the exact locality of disease and regulates the movements of the hand, employed at the same time in various delicate operations and the remedial applications to diseased parts. In granular urethritis the application can now be graduated with the same precision of the oculist in cases of granular eyelids. Gleety discharges dependent upon granulations in the urethra cannot be cured without the aid of the endoscope. It gives certainty to the diagnosis in cases of calculi, carcinoma, vegetations and small tumors, cystitis and its different complications; and, in strictures, the practitioner is no longer exposed to the danger of making false passages, often thus creating more difficulties, instead of lessening existing ones. Alterations in structure and diseased surfaces revealed by the endoscope have been treated successfully by different applications of subsulphate of iron, nitrate of silver, liqu. iodidi comp., bromide of potass., etc., to the actual seat of the disease; but the best remedy in my hands has been the solution, originally recommended by Desormeaux, of nitrate of silver one part to three of water, or gr. xx of the salt to one drachm of water. This solution may appear to some too severe, but, in my experience, it never has caused any inconvenience; on the contrary, in most cases, patients were not even aware that any solution had been applied, and often, after the removal of the tube, exclaimed, "Doctor, you forgot to apply the solution." It is only necessary to use it with circumspection on *only* diseased parts, and not to keep the carrier of the caustic too long in contact with the mucous membrane. On the other hand I found that weak solutions caused a great deal of continued pain; therefore came to the conclusion that these solutions bear the same relations to each other as do the actual cautery—the red and the white hot iron. Lecturers in gynecology speak of the abuse of nitrate of silver in its application to the cervix uteri. They are undoubtedly correct in making this statement; but this is certainly never due to the strength of the solution, but that it is improperly applied to healthy tissues, or held too long in contact with them, thereby destroying the tissues, instead of stimulating them. The consequence of such mistaken application is an ever-painful cica-

trization, while its proper use has a healing effect, thereby effecting a speedy cure. I have used the endoscope, in the treatment of different diseases, with great ease and benefit to the patients. It has always materially aided me in overcoming those difficulties which so perplex the operator in all cases of bladder ailments.

The following cases are taken partly from the record of the "New York Woman's Hospital," partly from my own notes :

CASE 1. — HÆMATURIA.

*Incontinence of urine with loss of tissue in the bladder.*

Sarah D., aged 33 ; native of Scotland ; admitted to hospital October 13th, 1868. First catemenia when 18 years old ; always natural. One child three years ago ; natural delivery. Passed water in small quantities during the labor ; was drawn by catheter the night before delivery, and for eight days afterward. Has ever since had incontinence of urine, not being able to hold it more than ten or twenty minutes. General health good ; bowels rather constipated. Urethra is very large and patulous, nearly admitting the end of the index finger. Uterus is hypertrophied, somewhat prolapsed ; which condition, by drawing upon and straightening the urethra, may be the cause of the incontinence. The anterior vaginal wall is redundant, though scarcely amounting to cystocele, and, particularly at the neck of the bladder and urethra, is thickened and hypertrophied, the rugæ being much exaggerated.

*November 27.* Dr. Emmet performed the operation for proci-dentia according to his recent method, hoping, by keeping the uterus up in place, thus relieving the tension on the urethra, and by turning in the excess of vaginal tissue against that canal, to give the patient control of her urine. The tissues were very vascular and bled profusely. Ten sutures ; no ether. The uterus was thicker on the posterior wall, and fixed backward to such a degree that it could not be kept in position at the time of the operation.

*December 8.* Five sutures removed ; catheter gives her pain ; but when it is removed she cannot hold her water.

1869, *January.* Patient can hold her water no better than formerly. She passes blood and complains of a good deal of pain in the neck of the bladder.

*February 25.* The patient is much troubled with hemorrhoids, and these are also due to two old fissures. It is thought that

the irritation of the bladder may be partly or wholly dependent on these causes. Dr. E. therefore stretched the sphincter ani, lacerating it.

*May 29.* The patient has not improved since the laceration of the sphincter. She still has as much incontinence as before. Has constant bloody discharge from the urethra.

*June 1.* She is rather worse; weakened by the constant spasmodic action of the bladder and loss of blood. Dr. Newman was requested to examine her with the endoscope. The bladder was found to be very much inflamed; could see the papillæ red, having a strawberry appearance. The urethra was also found thickened; the mucous membrane deeply congested and inflamed. The examination was very difficult, due to the fact of a constant discharge of blood from the bladder running into the tube, which obstructed the focus. Nitrate of silver, one to three parts, was applied by a pledget of cotton to the spot of the hemorrhage. Patient had much pain all night and the next day, but on the following night pain ceased and she slept well, which, up to that time, she was unable to do without an anodyne. The bladder was injected twice per week with water, and afterward with a solution of nitrate of lead gr. ij to  $\frac{3}{4}$  of water.

*June 4.* Patient was not so sensitive on examination. Mucous membrane of the urethra and bladder had not such a deep scarlet hue; neither has the patient lost so much blood from the urethra. The application of the strong solution of nitrate of silver was not as painful as before.

*June 9.* Solution applied through the endoscope. Patient seems to be improving; no blood lost except during the examination.

*June 12.* Solution applied; patient suffers very little pain; sleeps well and seems gradually to improve.

*June 16 and 21.* The same as on former occasions.

*June 24.* Bladder has a bluish appearance; only slightly red and bleeding less than on any former examination. Solution applied made it whitish, the blue shining through. She has no pain and feels better.

*June 28.* Solution applied per endoscope two and a half inches from meatus. She feels decidedly better.

*July 7.* Patient has a constant spasmodic contraction of the bladder; passes water frequently; has control of the sphincter vesicæ, but, during the night, passes sometimes urine in bed. As she has control of the bladder during the day it shows that

the involuntary evacuations during the night are nothing else but an enuresis nocturna, due to spasmodic action of the bladder. The bladder was injected with water with the intention to dilate. Patient could not bear it well, suffered much and it had to be given up without accomplishing the object. On withdrawal of the catheter, blood followed to a small extent.

*July 9.* Solution applied to a congested spot in the urethra, one and a quarter inch from meatus.

*July 13.* Endoscope, after some manipulations, discovered a granulation two and a quarter inches from meatus on anterior wall of bladder, which bled profusely. After some difficulty to absorb the blood, the solution was applied, which turned the spot into white.

*July 16.* Examination made under ether. The drawings, Nos. 11, 12 and 13, were made by Dr. Ficht, and are true representations of three different parts of the bladder. No. 11 is thickened and the structure altered. No. 12 is an almost healthy spot, and No. 13 is diseased, is very vascular, there is some loss of tissues, from which serum and blood exudes. The urine, which partly covers it, gives it a dim appearance and a bluish color.

*July 20.* Endoscopic examination was again difficult, in consequence of a hemorrhage in the bladder. After some trouble it was dried and touched with the solution, after which it changed its color to a healthy hue.

*July 23.* Hemorrhage still from a granulation in bladder was so troublesome that the usual way of application had no effect; it seemed that the blood neutralized the nitrate of silver, and the cotton was withdrawn full of blood, the granular spot not having changed. Then the solid stick was used in the form of a small piece of silver dipped into melted nitrate of silver. This had the desired effect, stopped the bleeding and changed the color immediately to white.

*July 27.* Touched with the solid stick; no hemorrhage. During the month of August only three applications were made, with decided success.

*September 1.* She feels well now.

She has been operated since by Dr. E. for lacerated perineum, and discharged from the hospital. If possible, will remain under observation.

Fig. 14.



Case II. Chronic Cystitis in the female  
with Ulceration.

Fig. 15.



Fig. 16.



Fig. 15. Anterior wall of a female bladder  $2\frac{1}{2}$  inches  
from meatus. Case IV: Chronic Cystitis with  
granulations.

Fig. 16. The same after the solution of Nitrate  
of Silver has been applied.



## CASE 2. — CHRONIC CYSTITIS WITH ULCERATION.

Sarah A. McK., aged 20 years ; United States ; single ; teacher ; was admitted to hospital February 12, 1869 ; first menstruation when 14 years old ; regular with regard to time and quantity, period lasting about three days, and painless.

Patient has suffered with pain in the bladder since her earliest recollection. Micturition has always been very frequent, has to empty the bladder twenty to thirty times during the day. She has been examined by several physicians, and her case pronounced chronic cystitis. Examined to-day by Dr. Emmet, and the uterus found to be completely anteflexed. This patient was sent to the hospital by a physician, who thought that Dr. Emmet would consider it a proper case for making an opening from the bladder into the vagina, in order to give the bladder rest. Dr. E., however, did not think such an operation justifiable until every therapeutic resource had been exhausted. Various internal remedies are given, among others, pareira prava, triticum repens, etc., the bladder was washed out with warm water, morphia solutions, biborate of soda and glycerine, but nothing gave her relief.

*June 4.* At the request of Dr. Emmet this patient was to-day examined by Dr. Robert Newman with the endoscope. She is extremely nervous on account of the constant pain. The frequent micturition during the night deprive her of sleep, and increase the nervous state and reduce her much. She could not endure any manipulation, and was therefore subjected to the influence of ether. On examination, the lining membrane of the bladder was found intensely red, and exhibited little eminences like strawberries, analogous to the appearance of granular lids. Dr. N. applied a solution of nitrate of silver, grs. xx to ʒ i of water through the endoscope, and suggested the use of a solution of nitrate of lead gr. ij to the ʒ by injection. Three ounces at a trial. Internally an anodyne of belladonna was given. Examination of urine to-day showed some albumen ; color, light straw ; reaction slightly acid. Microscope revealed a great deal of mucus and some pus.

*June 5.* The patient slept better last night, and micturated less frequently.

*June 9.* Bladder touched with the same solution ; no ether was given. The urethra is also much inflamed. The applications were repeated to urethra and bladder about every four days either per glass tube or endoscope.

*June 24.* Per glass tube an application to the neck of the bladder. Rhigoline per atomizer was applied to external parts to allay irritation. The whole urethra looks well now, and even the neck of the bladder, which was touched to-day, is not so much reddened and inflamed any more, and was more of a purple color, only slightly differing from a normal color and appearance.

*June 26.* The bladder was washed out and a small quantity of water retained to dilate the bladder. The first antagonistic contractions of the bladder were overcome, and then the bladder contained more water than it had done since the disease existed. Renewed efforts to dilate more, hurt her, and further attempts had to be discontinued.

*June 28.* She feels better, less nervous and is more cheerful.

*June 30.* Examination under ether. The urethra was found healthy. In the bladder a bluish place was touched with the solution; then the bladder was injected with hot water; by degrees the amount was increased from four ounces to a pint. The contraction of bladder and abdominal muscles were very perceptible, but soon ceased. Next a warm solution of nitrate of lead, gr. ij to ʒ j was thrown into the bladder and left there. About thirty minutes after, and fifteen minutes after regaining consciousness, she voided urine one pint, and felt more comfortable than at any time, since she was under treatment.

*July 2.* Since last application felt better and could retain the water longer. Application and injection of water repeated.

*July 5.* Has kept urine pretty well; sleeps well; has some pain during micturation, but none in intervals. Passes water during the night only three times.

*July 9, 13 and 20.* The same treatment.

*July 24.* She feels better, decidedly; is not nervous any more, and bears the treatment without feeling uneasy. Examination with the new tube, closed with a glass fenestrum, revealed an ulceration on posterior wall of bladder, three and a half inches from meatus. The same place was found again with the open tube and the solution applied, which changed the whole spot to a uniform white. (Fig. 14.)

This spot was before highly red, in the center a depression cut out, which was ulcerated and of a yellow color. Now she moves about; does not complain; is cheerful; her whole countenance pleasant; not nervous any more, and is altogether a different person from what she was, when treatment was commenced.

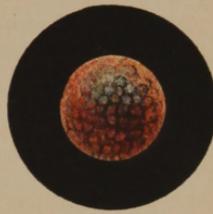
Fig.11.



Fig.12.



Fig.13.



Figs.11.12 & 13. represent different places of a female bladder of Case I. Haematuria.

Fig. 11. The structure is altered and thickened.

Fig. 12. A little inflamed, some parts almost healthy.

Fig. 13. Loss of tissue, exudation of blood & serum, granulations.



Even after the application she does not lie down, but moves about the ward like a healthy person.

During August the same treatment was employed five different times.

*August 26.* Is cheerful; feels well; walks about, in and out of door, plays, sings and spends the whole evening in the parlor, often five hours continually, without leaving it.

*August 30.* Discharged from hospital.

*January 30, 1870.* This patient has remained under observation. She is well, and has kept her place as a teacher in a public school, attending to her duties regularly, without missing one hour.

### CASE 3. — CHRONIC CYSTITIS.

Mrs. Norah L., aged 27; Ireland; admitted to hospital December 17, 1869. Married when 17 years old; one child seven years ago; widow for seven years. For three or four months prior to labor noticed swelling of entire body. Was confined to bed the whole time. Labor came on about 7 P. M., on Friday; child was born about 3 A. M., on Saturday. Had convulsions from beginning. On recovery from childbed there was no more indication of any dropsy. About one year ago noticed first the present trouble; was obliged to pass water generally eight or nine times during the night, and oftener during the day; occasionally had slight pain. At present suffers most on going to bed; for the first half an hour is obliged to pass water four or five times. The same is the case on first rising in the morning. Complains of a peculiar sensation at the neck of the bladder. Feels an uneasiness, and is obliged to pass water every five to ten minutes. During the night voids urine every fifteen minutes.

*December 24.* Examination with the endoscope. Found near the neck of the bladder a congestion of a purple hue. Application with nitrate of silver (one to three parts). Urethra found to be healthy.

*December 28.* Feels better; bladder injected with water, which caused some pain. After dilation the bladder's capacity was only  $\frac{3}{4}$  vi ss.

*January 3, 1870.* Solution applied.

*January 5 and 7.* Bladder dilated by injection.

*January 10.* Is much improved; can hold her water now for one and even two hours. Last night was up only three times. Solution applied.

*January 19.* Treatment was discontinued on account of menstruation. Solution applied three and a half inches from meatus. Left the hospital feeling well enough. Treatment continued at my office.

*January 22.* Capacity of bladder,  $\bar{z}$  vij  $\bar{z}$  ij.

*January 24.* Feels better; can keep her water now for two hours and longer.

*January 26.* On examination with the endoscope the bladder was found healthy.

*January 28.* Feels almost well; keeps her water now for three hours; last night got up only once. Bladder injected at intervals to viii ss, and next  $\bar{z}$  ix  $\bar{z}$  vi.

*January 31.* The bladder's capacity was increased to-day to  $\bar{z}$  x ss.

#### CASE 4. — CHRONIC CYSTITIS.

*Artificial vesico-vaginal-fistula. — Treatment with the endoscope — Closure of fistula and perfect cure.*

Mrs. Ellen O'B., aged 35 years; United States; admitted to hospital November 8, 1867. Married at 17; husband died four months after; one child; married again in 1864; husband died the same year. Menstruated first time at 16; always had dysmenorrhœa. General health, fair. Had a severe fall three years ago, and ever since has suffered from an irritability of the bladder. Has to make water about every half hour. Quantity of urine passed not more than usual. Sometimes clear, and at other times smoky, of a dark color, and occasionally tinged with blood. The first symptoms of trouble were spasm of the bladder, micturition with difficulty, as if sphincter was only partially paralyzed. But she always retained some power of the sphincter vesicæ, and the catheter never had to be used for relief. The hard and atrophied neck of the uterus presses against the bladder. The uterus is backward and fixed; the neck hard from the long use of nitrate of silver.

*January, 1868.* Tents and blisters have been used; patient is not better.

*June.* Every therapeutical remedy that could be thought of has been tried in the case without the least improvement. Dr. Emmet makes a fistula, after consultation with her former physicians, Drs. A. C. Post and Farnham, which benefited her much.

*July 18.* Discharged improved, to return in the fall.

*October 20, 1868.* Re-admitted. The patient is debilitated during the summer; has a good deal of pain. All the urine is

passed through the fistula. There is still a great deal of cystitis, thickening and induration, and she can scarcely bear the introduction of the catheter. The uterus is fixed and retroverted; the cervix is very hard.

*March, 1869.* The bladder has been washed out with copious injections of warm water two or three times a week, with weak solutions of nitrate of silver, subsulphate of iron. From then to June injections were used of water acidulated with muriatic acid, followed by solutions of morphia, without any benefit. The general health has been kept up by tonics.

*June 9.* Patient suffers from constant desire to make water. Dr. N. was requested to examine her with the endoscope. In the urethra, one-half inch from meatus, on the left side, a small excrescence was discovered, very red, and painful to the touch. Churchill's solution of iodine was applied, which seemed to give her much pain, and from which she did not recover for eight hours. During June, applications were continued once again with iodine, and three times with nitrate of silver. On June 28 the urethra was found to be normal.

*July 9.* The endoscope discovered an unhealthy spot in bladder, two and a half inches from meatus on anterior wall; it had a strawberry appearance, with a purple margin toward the right.

*July 16.* Solution of nitrate of silver applied to the spot described. Figs. 15 and 16, drawn by Dr. Ficht, show as it appeared before and after the application.

*July 20.* She reports better.

*July 23.* Found, per endoscope, a granular spot, to which the solution was applied.

*July 27 and 30.* Solution applied.

During August was examined three times, and all tissues found healthy.

*December.* Dr. Emmet closed the fistula.

*January, 1870.* Reports well. Another examination with the endoscope revealed only healthy tissue.

#### CASE 5.—GRANULAR URETHRITIS.

Kate S. On account of chronic cystitis, which would not be benefited by other means, Dr. Emmet had made an artificial vesico-vaginal fistula. Some time ago the bladder was found healthy by an examination with the endoscope, and Dr. Emmet closed the fistula. She did well and felt comfortable, but now complains of a pain in the urethra.

*June 30, 1869.* The examination with the short glass tube

and mirror found an urethritis one inch from the meatus; a portion was dark red, and another granular; the portion beyond and toward the neck of the bladder was healthy. Another inflamed part was found one-half inch from meatus; this portion was reddened, but not as aggravated as the second point mentioned before. The application of the solution changed these parts immediately to a healthy appearance.

*July 5.* She feels better since the last application. The urethra found, on examination with the glass tube, decidedly improved. The usual application was made to the affected spot.

*July 7.* Urethra feels better; passes water and can hold it about one hour; has control of the sphincter.

*July 9.* Endoscope showed an almost healthy urethra; solution was applied very slightly on first sore spot.

*July 13.* Application per glass tube to urethra for some extent.

*July 16.* Application to second spot. Urethra in its whole length is much improved.

*July 20.* Found urethra healthy; she is well, and bladder acts naturally.

Gone home to the country.

#### CASE 6.—URETHRITIS ACUTA.

Mrs. Mary H., aged 35 years; admitted in hospital November, 1867, for retroversio-uteri; operated by Dr. Emmet for proci-dentia uteri, June 25, 1868. Discharged July 10. Re-admitted October, 1868, with a complete retroversio-uteri. Since she left the hospital had constant dysuria, which troubles her much.

*July 20, 1869.* Complains of a constant pain in the urethra; increased during and after micturition. Examined with the endoscope and found the whole urethra in a state of aggravated acute urethritis; very sensitive to the slightest and most careful touch; highly inflamed; of a dark red, almost scarlet color; more intense toward the neck of the bladder. Solution applied to two points. R emulsio oleosæ.

*July 23.* Is still suffering with pain in the urethra. The whole urethra touched with the solution, per glass tube, which gave her some pain.

*July 27.* Looks decidedly improved; solution applied to one spot only.

*July 30.* Is nearly well; only a slight application. A solution of nitrate of silver gr. 40 to 3 j did hurt her much; but the strong solution she did not feel.

*August 2.* Is well and went home.

## CASE 7. — URETHRITIS WITH INCONTINENCE.

Mrs. J. C. S., aged 27; admitted April 17, 1869; from Alabama. Has had three children and one abortion. Retroversio-uteri, with complete adhesions posteriorly.

*July 27, 1869.* Since a short time complains of a constant pain in bladder: spasmodic actions; passes water about seventeen times a day. During the night she can sleep, but has to get up to micturate, in the same proportion of time, as during the day. The urine has been examined chemically and microscopically and found healthy. The quantity secreted is also the usual amount as in health. Examined with the endoscope and found the bladder healthy, but a urethritis near the meatus. The other parts of mucous lining of the urethra were only a little inflamed by its continuity; otherwise healthy. The usual solution of nitrate of silver, one part to three, was applied.

*July 30.* Almost well; only a slight application made.

*August 2 and 5.* The same solution applied.

*August 10.* Through the small glass tube a solution of nitrate of silver, 40 grs. to ℥j was applied per atomizer.

*August 13 and 17.* Atomizer as before.

Well—

These cases are selected from many others similarly treated with corresponding results, the details of which I was careful to note in daily progress, proving by these facts more than by any amount of expressed opinion the value of Desormeaux's endoscope. Most of the foregoing cases have been treated at the "Women's State Hospital," by kind permission of Dr. T. A. Emmet. Permit me, also, at the same time, to express my thanks to the different house surgeons of that institution, Drs. Walker, Harrison and B. Emmet, for their courtesy and valuable assistance. Many other gentlemen of the profession have at times visited and witnessed the mode of treatment, among whom I am proud to rank Dr. White, of Buffalo, the worthy president of this society. Incomplete as my report must be, when compared with actual observation, I trust that I still have said sufficient to interest and direct the attention of the gentlemen, and lead them to further investigation and inquiry on this subject.

In retiring, let me say that any additional aid or information I can give, either here or at my office in New York, I shall be most happy to render.

NEW YORK, 145 West 47th Street.

