necessary nourishment be diminished, they may be allowed a glass or two of light claret at meals. Large quantities of water should be drunk, say a gobletful every two hours; or similar quantities of milk if patients prefer it.

Bathing.—The habitual daily bath need not be omitted because of gonorrhea. But to protect the eyes of the patient and those of other persons who may use the bathtub after him, he should, before bathing, cleanse the penis with absorbent cotton soaked in bichlorid, 1 to 6000, cover its head with cotton similarly soaked, and then draw a well-fitting condom over the entire organ.

Exercise.—While the patient should not indulge in vigorous exercise, he should walk in the open air enough to keep his general condition as good as possible. Bicycling, horseback riding or athletics in any form can not be allowed.

Suspensory bandage.—Every patient with gonorrhea should be advised to support the testicles continuously in a well-adapted suspensory bandage. It should have "back-straps" that pass between the thighs.

Stains from potassic permanganate.—Should patients, through awkwardness, stain their fingers with potassic permanganate, they will naturally desire to remove the stains. They may be instructed to use oxalic acid for this purpose, and duly warned to carefully wash the hands after its use.

AUTO-IRRIGATIONS IN PROSTATIC ENLARGEMENT.

It will at once occur to my colleagues that this apparatus must prove exceedingly useful in preventing the too frequent, sad results of self-catheterization as employed by old gentlemen with prostatic enlargement. It is perfectly true that many of these do not exercise even the precautions of ordinary cleanliness, despite which for a course of years they continue to live comfortably and are as well as is possible with such an ailment. But the many who die in consequence of infection are sufficient cause for deep regret to the physician, who was obliged to yield to their importunities to be allowed to relieve themselves.

In cases in which the feasibility of radical operative procedures is doubtful, or when the patient refuses to incur their risks, infection can be avoided by the following method of aseptic catheterization: Instruct the patient

1. To cleanse the mouth of the penis with absorbent cotton soaked in bichlorid, 1 to 6000.
2. To half fill the irrigator bag with warm 4 per cent. boric acid solution.
3. To wash out the urethra as directed above.
4. To insert the catheter.

After the bladder contents have passed off through the catheter;

5. The irrigator bag should be filled with a warm solution of boric acid, 4 per cent., silver nitrate, 1 to 2000 or 1 to 3000, or potassic permanganate, 1 to 6000—whatever solution the physician deems most desirable in the special case.

6. The nozzle of the irrigator is then to be inserted into the mouth of the catheter, the fluid is allowed to enter for a quarter of a minute, then the nozzle is removed to let the fluid escape from the catheter to cleanse it—this is repeated several times, until the fluid that comes from the catheter is quite clear.

7. Then the tip is reinserted into the mouth of the catheter and the liquid allowed to flow into the bladder

until that viscus is comfortably filled—in some cases a smaller quantity is indicated.

8. The nozzle is then removed, and the bladder contents are allowed to escape.

9. Maneuvers 7 and 8 are repeated until the liquid flowing off is quite clear and transparent—in exceptional cases this can not be attained.

10. After the last emptying of the bladder as above, the liquid is allowed to flow into the bladder continuously for half a minute, then, without removing the tip from the catheter, the latter is slowly drawn out of the channel, which is washed by the fluid as it escapes during withdrawal of the catheter.

The above general directions must necessarily suffer modification according to the individual requirements of each case.

In conclusion I beg to submit: 1, that the auto-irrigator offers a safe and convenient means of anterior urethral irrigation in gonorrhea, when the patient can not visit his physician for the purpose; 2, that the auto-irrigator furnishes a convenient addition to the instrument bag for performing ante-operative and post-operative irrigation of the urethra and bladder; 3, that it is a most convenient apparatus for aseptic catheterism.

31 West Sixty-first Street.

TREATMENT OF PROSTATIC HYPERTROPHY.*

PARKER SYMS, M.D.

NEW YORK CITY.

Prostatic hypertrophy causes misery to a large proportion of men in advanced life, and results in such serious consequences that we must welcome every effort that is made to our means of curing or relieving its unfortunate victims. Fortunately much has been accomplished in this direction of late, and the author wishes to take this opportunity to present a new device that aids in the operation for radical cure.

When the prostate gland becomes enlarged it sooner or later acts as an impediment to the emptying of the bladder. In some cases it causes but little obstruction; in others it prevents the passage of the urine till the bladder is filled and distended, when the urine may constantly overflow by dripping, which is a condition often mistaken for incontinence of urine; or the bladder may be partially emptied by the act of urination, but it can not expel the last part of its contents, which portion, known as the residual urine, remains in the bladder and becomes a source of trouble, as will be shown later. When the obstruction is established the bladder is called upon to exert an extra amount of force and the muscles become hypertrophied and the bladder-wall thickened. Later the muscles degenerate and, when the obstruction becomes more complete, the bladder becomes dilated and atonic. Finally, from the damming up of the urine, the ureters become distended and dilated and open up an avenue for infection of the pelvis of the kidneys. Infection of the residual urine and a consequent cystitis are produced after the obstruction has lasted a variable time, and it is then that the patient becomes one of the worst sufferers imaginable. Usually the cystitis will be brought about by infection through catheterization.

Until comparatively recently it was not known that hypertrophy of the prostate could be radically relieved; in fact, all attempts in that direction had failed or

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had been found to be so dangerous that they were abandoned as recognized procedures. So the only relief offered to the patient was that which could be given by the use of the catheter, and the degree of this varies immensely. Some who are leading the catheter life suffer merely from the annoyance and discomforts of having to use a catheter. Others are wretched from start to finish, because they become readily infected and are constantly passing from one attack of cystitis to another, perhaps spending their entire time, day and night, in futile attempts to empty the bladder, and suffering pain and torture which are frequently beyond endurance. In such cases much relief can be afforded by proper surgical care, but it is only after tedious treatment, and it is only with the prospect of the patient soon passing through another acute attack of the trouble.

After prostatic hypertrophy is established nothing can afford permanent relief to the patient except some procedure which will remove the obstruction to the outflow of urine. Many useless procedures have been suggested and tried whose end was the cure of the hypertrophy of the prostate, but so far there remain but two methods which deserve favor in the minds of the profession. The first and most radical is some form of prostatectomy. The second is the prostatotomy performed by means of an electric cautery knife, known as the Bottini operation. This latter does not pretend to

gathered from reported operations, have shown for this procedure a fatality so great as to condemn the operation if this death-rate must be conceded to be the normal or necessary one. The author believes that this death-rate is not owing to the fact that the operation itself is a very dangerous one, but to the fact that the patients, when operated on, have been unfit subjects for almost any surgical procedure. When prostatectomy can be performed safely and properly it results in an absolute cure of the patient, and it is the only method for which this may be said. The author has operated on patients who were unable to obtain relief by the catheter and by bladder washing, who suffered most excruciating agony night and day, who had a number of ounces of residual urine and the highest grade of cystitis. The result invariably was complete cure of the cystitis and complete restoration of the bladder function, so that the picture would be reversed, from that of a man who every fifteen minutes or half an hour passed a small quantity of bloody, infected urine, and whose bladder had several ounces of residuum, to one of a man who could hold his urine from six to eight hours and then absolutely empty his bladder with comfort, and whose bladder was free from any evidence of infection.

The above gratifying results are certainly all that can be asked for, and it only remains that we shall be able to bring them about with a reasonable degree of

38 French Scale.

Dilated to 2½ Inches by Water.

Parker Sym's Bladder Retractor, for Perineal Prostatectomy.

remove the hypertrophy of the prostate nor the gland itself. It is intended merely to effect a lowering of the urethral canal by dividing the prostatic portion in such manner that the bladder is able to empty itself voluntarily. The Bottini operation was devised over twenty years ago, by Enrico Bottini, of Pavia. At that time he published an account of the instrument used, and his results; the proceeding was rather extensively tried, but for some reason was abandoned. Recently it has been revived, and to-day it has many enthusiastic advocates who make great claims for it. The author has had no personal experience with this method of treatment, but it is advocated by such able men of late that he has fully determined to investigate it and try it for himself. It is an operation involving but little risk to the patient, and if it affords the relief claimed it is certainly of the greatest value. The most enthusiastic advocates of this method, however, do not claim that it will effect a cure or great improvement in all cases, and they concede that it yet remains for us to be able to distinguish just which class of cases are adapted to it and which are not. It still remains to be demonstrated how lasting or permanent the improvement may be in cases which have been benefited by the proceeding.

A line of treatment in which the author has had experience is prostatectomy, and his results have been so gratifying that he has been led to feel that this operation is one of the greatest achievements of modern surgery. Unfortunately, at the present time the statistics,

safety. It certainly is not doing justice to the patient, nor to the operation itself, if we undertake this procedure as a last resort. The author claims that the proper time to do prostatectomy is before great damage has been done to the bladder, urethra and kidneys; in other words, it should be performed as soon as it be determined that the habitual use of the catheter will be necessary. If that be the case one will be operating on a patient at his best instead of at his worst. The operation itself certainly is not a dangerous one, and in proper subjects the results should be very good and the mortality-rate low. The author would not advise operating on men who are physiologically very old, in other words, men whose arteries are markedly degenerated, whose circulation is poor, and who are decidedly feeble, but in the ordinary man of 60 or 65, whose bladder is still in good condition, the operation can probably be performed with safety.

In a paper entitled "Prostatectomy," which the author read before the New York Surgical Society, Nov. 9, 1898, he advocated the perineal prostatectomy of Alexander as the preferable method of those then in vogue, but he expressed his objections to the performance of the suprapubic cystotomy, and proposed that, instead, one should make a small opening in the abdomen above the bladder fold of the peritoneum, and through this wound he could push the prostate, bladder and all, down toward the perineum, so that, with the other hand, he could enucleate the lobes of the prostate.

Since writing that paper, he has operated through the perineum, but without making any wound above the pubis. In one case he was able to crowd the prostate down by manual pressure from above, because the abdominal wall was thin and easily impressed. In another case he succeeded in reaching the prostate and enucleating its three lobes by means of a special retractor, which he devised and now presents. It consists of a rubber tube made of the size and consistence of the ordinary perineal drainage-tube, on one end of which is cemented a thin rubber bulb; the bulbous end is inserted into the bladder through the membranous portion of the urethra, which has been opened, as after Alexander; when the bulb is well within the bladder it is dilated by being filled with sufficient water to expand it into a bulb $2\frac{1}{2}$ inches in diameter; then traction can be made on the strong rubber tube sufficiently to bring the prostate into the perineal wound within reach of the finger, enabling the operator to perforate the capsule and to remove the gland. The operator has used the straight median incision, not having found it necessary to use one of the transverse or curved incisions of Zuckerkandl, Dittel, or Rydygier, but in certain cases one of these incisions would have great advantage over the shorter ones of the median line. The point the author wishes to make is that prostatectomy can readily be done entirely through the perineum, and that it should not be combined with a suprapubic cystotomy. The author feels that the perineal drainage of the bladder is of importance when a cystitis is present, but that it is not a necessity otherwise, and if the patient presents himself for operation before cystitis has been established the operator should endeavor to remove the prostate without opening the urethra or the bladder.

In closing, the author wishes to urge upon his confrères the importance of the early recognition of obstructing prostatic hypertrophy, and also that they should submit these patients to a radical operation before the cystitis, prolonged pain, infection and fatigue have put them in a condition where they are unfit to undergo a surgical operation.

DISCUSSION ON PAPERS OF DRS. VALENTINE AND SYMS.

DR. C. C. THAYER, Clifton Springs, N. Y.—The paper on "Surgical Asepsis of Urethra and Bladder" is valuable, not only in showing how inflammatory conditions may be prevented in these organs, but cured. Cystitis is microbic in origin, and suppurative in character, the sine qua non being infection. The initiative and predisposing cause is structural change, and the provoking and perpetuating cause is inoculation with microorganisms, the vesical inflammation being instigated by bacterial infection and determined by circumstances. The urine is the medium of intelligent diagnosis of the presence as well as of the particular phase of cystitis; but considering the many pathological conditions that may affect the character of the urine after it passes the bladder the exact condition of the lining of the bladder can not be accurately diagnosed from urine passed in the normal way, or until all the parts affecting the urine after passing the bladder are free from pathological elements belonging to them.

As the pathology of cystitis may be embraced under impaired nutrition and structural change in the lining of the bladder, and bacteria of suppuration, the treatment is clearly indicated, but in reverse order, namely, to overcome the infection which produces the inflammation, the structural change which the inflammation produces and the imperfect nutrition which favors structural change; hence, local aseptic treatment is necessary in the treatment of cystitis. Milk or soft-food diet, saline laxatives as required, frequent hot sitz baths, hot poultices, hot salt bags or the Japanese stove over the bladder, and the patient kept in bed are important adjuncts in the treatment of acute cystitis. If the symptoms are not ameliorated

in two or three days, the urethra should be disinfected, a soft aseptic catheter introduced, the urine drawn, the bladder thoroughly flushed with sterilized water 105 F., in which soda benzoate or Seiler's tablets, 2 grains to the ounce, is added, after which the bladder should be filled with some antiseptic solution. As the bladder has no anatomical, but a physiological, capacity, the quantity of water must be gauged according to the comfort of the patient, and the temperature about 105 F.

My method has been to use a one pint fountain syringe with a pipette nozzle, which can be readily attached or detached from the catheter after it has been introduced, so that the bladder may be flushed several times and germicides introduced before removing the catheter. Perhaps the bichlorid 1 in 3000 is most destructive to most of the bacteria, one to four ounces being introduced and then allowed to pass out. This is repeated twice daily for three days to destroy bacteria and spores, then leaving an interval of three days. As the bladder is improved, and the patient comforted in bad cases by frequent irrigations, other remedies and reconstructives may be employed, namely, two ounces or more of the strained infusion of verbascum, calendula or balsam of Peru, with two or three drams of formaldehyde solution to prevent the ammoniacal decomposition.

Chronic cystitis is often occasioned by prostatic hypertrophy so well set forth in the second paper. This condition is tedious and not hopeful in prognosis, except when normal anatomical relations can be restored. The two reasons for this are the mechanical obstruction to the flow of urine by the hypertrophied prostate, overcoming the normal action of the detrusor urinæ muscle, and the decomposition of the residual urine. Treatment for these cases should be as suggested in the treatment of acute cases and that applied to the hypertrophied prostate surgically, as well set forth in the paper, or by forcible dilatation of the urethra by warm bougies.

In acute attacks of the prostate, occluding the urethra, the condition becomes serious, because of the difficulty of introducing the catheter and emptying the bladder. Nearly a year ago, and after vain attempts by several to pass a catheter past a hypertrophied prostate, and after the parts were quite lacerated, a metallic catheter was finally introduced through the stricture, and fearing lest it could not be introduced again if removed, I kept it in place for sixteen days, through which the chronic cystitis was successfully treated, the urethra satisfactorily dilated, and since which the patient has had no further trouble.

DR. GEORGE CHISMORE, San Francisco—Dr. Valentine has presented a very ingenious instrument to prevent sepsis in washing out the bladder. Anything that will diminish the danger of irrigation must be accepted with pleasure. I am sure that much mischief often follows the introduction of germicidal solutions into the bladder. I do not believe any one can devise a germicide that will destroy injurious germs in the bladder and leave the organ unharmed. Of the last paper, in reference to the removal of the prostate gland through a median perineal incision, the method recommended seems a good one. Any means that will give permanent relief to the evils that arise from senile hypertrophy of the prostate gland deserves the greatest consideration at our hands.

On the whole, prostatic surgery has been disappointing; the future of this operation seems more hopeful. I have lately had the pleasure of witnessing a median perineal prostatectomy by Dr. George Goodfellow, after a method he has been using for several years with gratifying results. He places the patient on the back with the thighs very strongly flexed on the chest. This position gives the surgeon such a command of the prostate region that he can readily enucleate the entire gland through a very moderate incision.

DR. CARL BECK, New York City—The antiseptic, or rather aseptic, efforts of Dr. Valentine have my warm sympathy and I do not believe that too much antiseptics or asepsis can be practiced. Every introduction of an instrument into the urethra is virtually a surgical operation, and should be preceded by the same care. If we do an operation on the outer surface of the body we do not content ourselves with pouring

a little boric acid on it, but we are contented only after scrubbing with soap and water and subsequent application of alcohol and bichlorid of mercury or a similar antiseptic. Even then there is another surreptitious enemy of asepsis, intracutaneous bacteria, which should not be underrated. These can not be reached by any disinfecting process. They are set free as soon as there is an injury of the integument, and it is only by protecting the skin-margins of the wound with sterile compresses, after the skin is dissected that they can be kept in check. No precaution of this kind can be taken in the urethra, which moreover is a much more congenial resting-place for bacteria than the skin-surface of the body, the follicles offering microbic shelter, which can not be reached by intraurethral injection. If there is an injury, be it caused by a cutting instrument or by the friction of a catheter, not only bacteria of the intraurethral surface but also those sheltered by the follicles have a good opportunity to infect the adjacent tissues. This finds its simple clinical illustration in the fact that whenever blood shows after catheterization, there will be a chill, the instruments having opened an avenue for infection. Thorough prophylactic disinfection of the urethra is still a pious wish. This, however, should not encourage any sins of omission. As our active antiseptic drugs, like bichlorid of mercury, etc., can not display their valuable properties as fully in the urethra, we would better rely on a passive bacterial destroyer, like iodoform, which, while powerless where there is no injury, displays its unequalled properties in the presence of a lesion. Therefore, I advocate the prophylactic injection of 5 per cent. in glycerin before the introduction of an instrument in the urethra. If an abrasion is caused, the iodoform will come in contact with the wound-serum at its stadium nascendi. Iodin is set free, and during this chemical process bacteria are destroyed or their development at least is arrested.

DR. F. W. ROBBINS, Detroit—I am surprised to hear the continual repetition of so many drugs as internal antiseptics. I have been interested in treating the urethra and bladder as recommended by Dr. Valentine for years, but I am not as enthusiastic as he has been. I am sure that irrigation of the urethra and bladder is of great importance. We find people among the laity who seem to think that they can irrigate the bladder just as well as we can, and they do not get the good results Dr. Valentine does. People feeling this way tend to throw the method of irrigation into disrepute, and any instrument which will become to the laity an easy one to use is going to still further increase the opposition to irrigation. The bag is very soft, easily broken and destroyed. I see no advantage over the ordinary fountain syringe with the exception of the arrangement at the nozzle. If the Doctor would throw aside all the rest of his instruments he will have a method which can be used in all cases where special treatment is necessary. Personally I consider urotropin to be the only internal urinary antiseptic of any value.

DR. J. RILUS EASTMAN, Indianapolis—There can be no question that Dr. Valentine deserves great credit for having perpetuated and championed in America the useful principles of urethral irrigation as enunciated by Janet. Valentine has shown us that very often the catheter introduced for irrigation produces in mechanical irritation more trouble than is relieved by its flushing. Janet and Valentine emphasize four points in the potassium permanganate irrigation treatment of gonorrhea, namely that the solution should be injected hot, often copiously and under pressure. These are indisputably the cardinal points to be kept in mind. It is a question, however, whether all this can not be accomplished by a safer and simpler method than that of Dr. Valentine; whether the author's object can not be brought into execution as effectively and more conveniently with a large blunt-nosed metallic syringe provided with a protective shield. I believe that when the thumb pressing the piston becomes educated to the syringe, the pressure can be gauged as accurately and controlled as well as with the apparatus of Valentine. The large syringe is more easily sterilizable. When it is used the solution is taken from the top of the container by withdrawing the piston. The solution is, therefore not apt to contain irritating crystals. When the

permanganate solution is emptied into the jar of the Valentine irrigator the crystals, if any be present, precipitate at once to the bottom of the jar and are first to enter the urethra. It may be said that care will obviate the danger of introducing the crystals with the irrigator, but is it not after all a constant menace? The nozzle which Dr. Valentine has shown us this afternoon is too long and too pointed. It will certainly pass clear into the fossa navicularis of the average urethra and produce much irritation. It is made of soft porous rubber and will hardly be easily susceptible of perfect sterilization.

DR. J. B. BULLITT, Louisville—The principles that Dr. Valentine stands for are certainly proper and right, but it seems to me that an apparatus such as he has exhibited to-day is unnecessary. Progress should always be toward the simple, rather than the complex, and, as one man has said, there certainly is no need of anything more for carrying out the procedure than an ordinary fountain syringe and a properly-shaped nozzle. The sheath is certainly of value, but I should say that the most important part of his apparatus is the little clip whereby the stream can be turned on or off. This is needed in many operating-rooms, and I shall adopt it. I do not think you can well gauge the pressure of a stream of water by the ordinary piston syringe, but you can gauge the amount of resistance, and that is all. I do not believe that this syringe is more easily cleansed than a fountain syringe. I do not know of any class of cases that tries the surgeon's patience, if not his skill, so much as an old man who has reached catheter life. Draining by suprapubic operations in some cases will work admirably, but many of the bladders become infected and contraction with thickening of the walls results.

DR. F. D. GRAY, Jersey City—I wish to assert my belief in the superiority of enucleation over the Bottini operation. I have not done the latter operation, but I see theoretical disadvantages in it. An operation, however, such as enucleation, which the average general surgeon like myself can do without having first witnessed it, simply having read the technique, and which he can perform with comparative ease and with a good result both as to recovery and as to the function of the bladder, is not an operation to be ignored. The invention of Dr. Syms is a good one, but I see some advantages in doing the old operation, comprising the suprapubic cystotomy. It is important to be able to have the tip of the finger inside the bladder on the prostate gland to make counter-pressure during the work of enucleation, and the device of Dr. Syms, while very ingenious, can not, in my opinion, take the place of the finger. I have also wondered why in place of suprapubic cystotomy it is not sufficient to force down the prostate with one or two fingers in the rectum, hooked over the prostate or against it, particularly while enucleation is being done with the other hand, thus avoiding opening of the bladder either above or below. In case the fingers can not reach sufficiently to produce counter-pressure in the rectum a proper modification of Syms' rectal speculum could certainly serve the purpose.

DR. RAMON GUITERAS, New York City—Washing out the urethra and bladder always improves their condition even if you use simple water or a saline solution, and the use of a mild saline solution enhances the value of the irrigation. Practice makes perfect in all cases. Dr. Valentine can irrigate patients much better than they can do it themselves, but if the Doctor is absent then the patient can be taught to irrigate himself sufficiently well to improve his condition. I do not think, however, that the patient should be allowed to irrigate when he has obstruction, as when the cystitis is dependent on a stricture, or an enlarged prostate. In employing this auto-irrigation method a certain amount might remain in the bladder and cause irritation. I do not believe there is any comparison between a piston syringe and a fountain syringe. A piston syringe can occasionally be employed, but in a majority of cases you can not be guided by the amount of pressure. A patient who is being irrigated always knows when his bladder is full and can tell you when he has sufficient fluid in the bladder to cause him discomfort; then the inflow should cease. All further distention may do harm and will certainly cause bladder strain.

As to the treatment of prostatic hypertrophy, it is still in its infancy, and when you come to consider the various methods

of treatment of the day there are really only three or four: the catheter, enucleation and Bottini, with perhaps a palliative method with the formation of a permanent fistula. The question is when shall we do enucleation and when shall we do a Bottini? We should never do an enucleation in cases where there is a pyelonephritis, or very much damaged kidneys, or where there is a great amount of arterial disease. The class of cases on which to do an enucleation, as a general thing, can be determined by any one who has a good genito-urinary touch. He will find that the prostatic urethra is elongated and will be able to feel that bump or pillow, as you may call that projection of the middle lobe into the urethra. By rectal touch he can determine the size of the prostate, but very often simple manipulation of the finger is not sufficient in order to feel the prostate because the bladder prostate sometimes differs from the rectal prostate. A man may feel the prostate by the rectum and it may not seem to be large, but the middle lobe will extend up into the rectum and you will have a much larger prostate than you have any idea of. All these large prostates which feel like door-knobs when felt through the rectum are cases for enucleation. Lateral-lobe prostates are better enucleated by the perineal method, while if there is an enormous middle-lobe hypertrophy it is just as easy to enucleate by the suprapubic incision. In most prostatectomies there is a double incision. There is a certain class of prostatic hypertrophies where the Bottini operation is not very much needed, but it is indicated where there is a small middle-lobe enlargement causing sufficient impediment in the prostatic urethra to give rise to a large amount of residual urine. Such cases may be immensely improved by this operation, and it is not so dangerous as enucleation. In the case of a man who has a good genito-urinary touch and who selects his cases I do not think that the mortality from the Bottini operation should be more than 5 per cent., but in the hands of a novice who has simply read a description of the operation, there would be a mortality of not less than 15 per cent. In the most favorable cases enucleation would give a mortality of not less than 20 per cent. in the hands of the most experienced genito-urinary surgeon. There is no more difficult operation and it requires the greatest familiarity with the parts and the best surgical skill.

DR. F. C. VALENTINE, closing—Dr. Syms expresses preference for enucleation in confirmed prostatism. In this, I am convinced, the majority of surgeons agree, owing to the necessarily great hazards that still beset searing the prostate in the dark, as is done by the Bottini instrument. This operation, however, is likely to receive a new impetus, and become the less dangerous one, from the new incision-cystoscope recently devised by H. R. Wossidlo, of Berlin. By its means the obstruction can be seared under the guidance of the eye. As concerns my paper, I deem that our thanks are due Dr. Thayer for giving us, in his discussion, the benefit of his ripe experience. It is perfectly true that a number of colleagues have advocated the ordinary fountain syringes for urethral and intravesical irrigations. I need not call attention to the dangers to others of a household instrument being used for this purpose, nor the difficulties which its thick material imposes on the patient who for any reason can not be irrigated by his physician whenever necessary. Moreover the fountain syringe is of questionable sterilizability, while the little device I have shown can be boiled in its entirety and so rendered perfectly safe. In the treatment of enlarged prostate, when it is certainly impossible for the physician to relieve the patient's bladder and to wash it as often as necessary, the patient can be easily instructed to insert the soft conical nozzle of this auto-irrigator into the catheter, and to withdraw the nozzle as soon as he experiences a slight vesical tension. The fluid used for cleansing the bladder then escapes, as did the urine, through the catheter. With a little more instruction such patients can be taught, by the same means, to leave within the cleansed bladder, such a quantity of the antiseptic liquid as the physician may direct, and to further irrigate the urethra during the withdrawal of the catheter. I certainly agree, as must all others, who have had much to do with gonorrheal patients, that clap is entirely too dangerous a disease to allow any part of its treatment to

be relegated to the patient. But there are circumstances in which the patient can not visit the physician with regularity. Moreover, there are men who discover their misfortune on the eve of a journey by rail or by sea and who must be helped to at least control the propagation of gonococci, as well as may be. The least intelligent of these patients needs but one lesson to perfectly accomplish anterior irrigation with the auto-irrigator. Such patients are more prone to avail themselves of their physician's advice, when its employment is rendered easy, as it can be with this device. Another consideration, and one of undeniable importance, is in the dimensions of the apparatus, which is so small that it can be concealed; this conserves the natural privacy which every patient desires to maintain regarding his infection. But I must emphasize the fact that I would never relegate the treatment of gonorrhea to a patient, unless when uncontrollable circumstances compel a makeshift.

All must quite agree that when there is no urethral discharge and when the urine is aseptic, and when careful asepsis is observed, the need of irrigating the urethra before and after instrumentation is not always imperative. I would add that this implies a degree of manual dexterity that all practitioners may not have acquired. We have all doubtless seen cases of urethral fever, with all its dangers, in patients who had been treated by others. Our obligation as teachers, it seems to me, embraces the advocacy of especially post-operative irrigation, which we know to be harmless and which, in the experience of those who employ it, has saved patients from urethral fever.

Dr. Chismore says that he does not appreciate how any remedies can destroy germs. I assume that he refers to those to whom infections of the lower genito-urinary apparatus is due. The Doctor voices the views and experience of all other learned men. But he will agree with me, when by a ready, easy and safe method of irrigation infection can be prevented, it is our duty to employ it, and that when an organ is infected it is equally our duty to strive to the mitigation of that infection by all means in our power.

Dr. Carl Beck reminds us of the bacteria which inhabit the normal urethra and which can be doubtless stirred into noxious activity by even the gentlest instrumentation. It is to Dr. Beck's credit that he suggested filling the urethra with sterilized oil containing 5 per cent. of iodoform, so that in the presence of those microscopic lesions which the gentlest instrumentation produces, the iodine which is then liberated exercises its bactericidal effect. The only modification that I would offer to this procedure, so in keeping with the behests of modern science, is the substitution of sterilized glycerin for the oil, because the glycerin being hydroscopic, permits effective irrigation, which would have but little, if any, effect on the urethra coated with oil. Let me repeat here that the results from irrigation can be best explained, in my opinion, by the artificial edema that it produces, rendering the mucosa an unfavorable culture-medium for bacterial propagation.

I regret that I must agree, in a measure, with Dr. Robbins in the danger of such an instrument as I advocate, becoming the property of the laity. But I must ask Dr. Robbins whether he would not prefer that his patients learned to appreciate the dangers of gonorrhea, by such means, rather than to continue to deem it trifling, and amenable to the little "P" syringe and the quack's or druggist's injections. It is just such scientists as himself who will be helped by the little device I have shown.

Dr. Eastman told us that the thumb could be educated to more intelligently gauge the pressure employed in copious urethral washings by means of a syringe, than by the stop-cock of the irrigator. While dexterity may go very far in employing a syringe as a manometer, allowance will always have to be made for the differences in individual syringes, as well as in individual urethrae. With the auto-irrigator there is no element of chance; the hydrostatic pressure is graded at will and easily fitted to circumstances and conditions as they vary in each case and in the same case at different times.

DR. P. SYMS, closing—Some misunderstanding must have arisen in reference to the instrument mentioned, which is intended to be inserted into the bladder through an incision in the membranous urethra.