In this instrument, the large evacuating tube at the top of the bulb extends an inch or more downward into its cavity. A space is thus formed where any accidental air collects, but cannot pass to the bladder. This space is emptied at will, through another elastic tube or hose, a little more than a quarter of an inch in diameter, placed by the side of the first. The arrangement is a very simple one. Through this small hose, which can be attached and detached in a moment, the turbid contents of the bulb may be replaced by clear water, without unfastening it from the catheter; or the contents of a tumbler can be transferred to the bladder, and back again, absolutely without loss of water and with the elimination of all the air. With one end of the apparatus in the bladder and the other in a basin, the operator, even while he is evacuating the fragments, can vary the volume of water at will and put it where he pleases. The catheter, and the elastic tubes, large and small, are each provided with a stop-cock.

If, before using the lithotrite, the surgeon desires to add or withdraw water from the bladder, this may be done through a common sized catheter coupled with the bulb, — thus obviating the necessity for a syringe, and rendering this part of the operation as dry as the rest.

Instead of the metal ball-and-socket joint in the stand of my former instrument, I have substituted another, of which a strong glass trap forms the ball. This is supported in a metal socket, which allows all necessary motion, or fixes it upon the flat disk.

The operation is as follows. Before a catheter is introduced, its stop-cock must be closed. The urine is drawn through a small catheter and replaced by water from the bulb. The lithotrite is then introduced, and the stone is crushed. A large catheter is next passed into the bladder, to evacuate the fragments. If, during the pumping, the bladder indicates, by repeatedly stopping the catheter, that its parietes are hanging loose and acting as a valve, it should be distended by a little water injected from the bulb. This water is retained in the bladder by closing the cock of the catheter; while the bulb is replenished through the small hose.

When the empty evacuating catheter is first introduced, a few bubbles often rise from it, and are caught in the bulb by elevating it. But when the current is established, air takes care of itself, and goes to the trap in the top of the bulb. In fact, there is none, unless by accident. By opening all the cocks, and compressing the abdomen, it is easy to drive air out of the bladder through the bulb as far as the basin.

In pumping you need move only a couple of ounces of water between the bladder and the bulb, backward and forward, gently, without a jerk, once in a second or two. The tube is advantageously held just off the floor of the bladder, — a little higher at first, when the debris clog it, and lower down when only a few fragments remain.

As regards the amount of time necessary for an operation under ether, take as much as you please; precisely as you do in an amputation or excision. I usually add to the evacuation a thorough sounding. This requires more time. Some operators leave a few fragments in the bladder, to make the sitting shorter, but I doubt the expediency of doing so. Great care is essential, — also practice. Learn from a good instructor how to pass instruments, large and small, curved and

straight, with absolute facility, upon the dead body, before practicing upon the living. Notwithstanding an occasional assertion to the contrary, I assure you, that, if you can introduce with ease into the bladder of a dead subject, not empirically, but with a reason for each movement, a common tin sound bent successively into a variety of different irregular curves, (and a few hours' intelligent practice, based upon anatomical considerations, will enable you to do this,) you will handle a catheter adroitly in any difficult case upon the living subject, and avoid the accidents that sometimes follow the introduction of common instruments, such as laceration of the mucous membrane and false passage; you will also be able to deal skillfully with obstructions from strictures or the irregular walls of an enlarged prostate. Certain accidents with the lithotrite, however, deserve special consideration.¹

THE COMMITMENT OF THE INSANE.²

BY BENJAMIN CUSHING, M. D.

THE public mind has lately been excited on the subject of the commitment of the insane to asylums. It was thought that personal liberty was not sufficiently guarded. An application signed by the "next friend," notice to the mayor or selectmen, and a certificate, signed and sworn to by two physicians, were enough, in Massachusetts, to warrant the superintendent of an asylum to receive and hold in custody one charged with insanity. In some States much less is required.

¹ The evacuator of Thompson illustrates the objections mentioned in the text. Latterly (Gazette Hebdomadaire, Oct. 31, 1879), Thompson has arranged a single cock to do the duty of two in closing the lower bulb orifices to keep the bed dry. But the instrument is virtually the same. (1.) The bulb, or bottle, like Clover's, is above the catheter, so that the water has to be drawn up into it, and, if the cocks happen to be simultaneously opened for a moment, it will all run into the bladder and distend it. (2.) Its weight must be supported by the operator, or rest upon the catheter. (3.) Being rigidly fixed to the catheter, it communicates the jar of pumping to the bladder; this old "short connection" thus retained between catheter and bulb, upon which Thompson insists, yielding, so far as I can discover, no equivalent advantage. (4.) Lastly, the mouth of the catheter enters *low down, into the narrowest part* of the bulb. Consequently fragments, after rising into the bulb, with the current, must, on their way to the glass trap, again crowd in front of the catheter; and thus debris are needlessly returned to the bladder. It would be better, if it be desired to connect the catheter low down, to prolong it a couple of inches inside the bulb, and to let the fragments escape at a higher point, where the cavity is wider, as is represented in the lowest tube of the annexed diagram. With such an instrument I experimented some time ago. (Fig. 2, I.) This arrangement also keeps the contents of the trap quiet, and there is no return of fragments.

But even an imperfect or inconvenient apparatus may suffice to empty the bladder. The only feature of an evacuator absolutely essential to rapid lithotripsy is the large catheter I have elsewhere described, which Thompson has adopted without change. It is this that enables his instrument to evacuate. The want of this large catheter (in combination with good suction and a trap) was fatal to the success of previous instruments, and to all attempts at the immediate evacuation of any considerable amount of debris. With such a catheter, Clover's instrument could have evacuated the bladder slowly, and might have led, in the face of traditional prejudice, to the discovery of the tolerance of that organ, and of lithotripsy at a single sitting. But the catheter of Clover's instrument was too small, being only 21 French (12 English), beyond which the English scale did not go. Its eye was also defective. The new method was impossible to those who were using this small catheter. They could not empty the bladder of all its fragments, and therefore knew nothing of its great recuperative powers after the complete removal of this source of irritation. Authorities agreed that evacuating catheters were worthless. When Otis directed the attention of surgeons to the fact (see a paper by R. F. Weir, New York Medical Journal, April, 1876,) that the capacity of the average urethra was very nearly 33, rapid lithotripsy was made easy. Sitzings were lengthened from a few minutes to an hour or two.

² Read before the Dorchester Medical Club.

There remained the power of the superintendent to judge of the propriety of keeping the patient, and the patient himself could, theoretically, take the benefit of "habeas corpus," but practically it might be otherwise. This, by the new law, is changed, and the commitment of the insane is now a judicial proceeding.

Although, on first thought, this seems like taking these cases from the physician and giving them to the lawyer, it is not so. The new law requires a certificate, signed by two physicians, "graduates of some legally organized medical college," and of three years' practice, that the patient is insane and a fit subject for treatment in an asylum. The signers are to appear in court and give reasons for their opinion, and on this evidence and his own personal examination the judge issues a warrant to commit.

I cannot learn that much wrong has been done under the old law, but I can see that it was quite possible, and am inclined to think the new law not uncalled for. I think that I have known of commitments which ought not to have been made and, under the new law, would not be made.

I question whether in the medical certificate, the second point, namely, fitness for treatment in an asylum, has always been sufficiently considered. It is true that the insane must often be confined for the safety of the community, but it is equally true that some of them may be safely and more comfortably cared for outside asylum walls. In truth, I think certificates have sometimes been given too hastily. At any rate such is my own experience and observation.

Again, the old law said "two physicians," and gave no guarantee that the physicians were competent to give an opinion on which so much depended. The new law defines the word "physicians," and subjects the medical opinion to an examination which, if sound, it will bear; if not sound, it will need. The judge also naturally will know the character of his witnesses; and, what is important, proceedings are in open court.

But, while the new law gives new safeguards to liberty, it brings some serious inconveniences to the unfortunate insane themselves, which should be provided against. A case which came under my notice, will illustrate this.

I was visiting a patient when I was told that some one wanted me. Going to the door I found a young man waiting for me, flourishing a club in a violent and excited manner. At first, I thought that he was intoxicated, but soon recognized him as an insane man whom I had formerly known. I took him to his home and advised his immediate removal to an asylum, both for his own sake and because he was dangerous to others, being disposed to be quarrelsome. It was too late in the day to get an order from court to commit him, and I did not like to have him confined in one of the underground cells of the station. Provision was therefore made to care for him in his father's house until the following day, when he might be taken before the judge of probate. On the next morning he was taken by an officer to the city. It so happened that the court did not sit on that day, it being Decoration Day, a fact which had not been thought of, and I afterwards learned that the unfortunate young man was confined for a day and a night in one of the cells under the court-house (I believe they are called "Tombs" and well named), whence he was taken raving and hand-cuffed to South Boston.

From this may be seen what is needed, namely, a suitable place where the insane, who are too violent to be left at large for any length of time, can be detained with comfort to themselves, and not be made worse by a confinement which cannot but aggravate their malady. In this connection let me say that the lock-ups in this State, including those in Boston, are not what they should be. Many of them are under ground and infested with vermin, badly ventilated, and too far removed from the night-watch to be safe for the occupants.

It should be borne in mind that these cells are for those waiting trial, and not for convicted criminals; places for detention, not for punishment. It is a maxim of the law that all are presumed innocent until proved to be guilty. If this is anything but a pleasant legal fiction, the occupants of these cells are in the eye of the law innocent, for they have not been tried. They should not be subjected to unnecessary discomfort or danger. One arrested on suspicion is entitled to be tried and, if acquitted, returned to society in as good condition as before arrest. The State is morally responsible for so much. Under my limited observation, within a few years, several cases of death have occurred, the direct results of imprisonment in our lock-ups.

If our boards of health, state and city, would give attention to this matter and personally visit the lock-ups in Boston and vicinity, and learn their histories, they would, I think, find a field of labor large and, as yet, uncultivated.

RECENT PROGRESS IN GYNÆCOLOGY.

BY W. H. BAKER, M. D.

The Treatment of Epithelioma of the Cervix Uteri. — Dr. J. Marion Sims contributes a most valuable article on this subject to the *American Journal of Obstetrics* for July, 1879, giving the details of ten cases and a description of his method of operating. The steps of the operation are essentially as follows: The patient is etherized and placed in the left lateral semi-prone position; the Sims speculum being applied, the tumor is to be seized with vulsella, pulled forward, and held firmly, while with the curette we remove as fast as possible the soft or outer portion, this being the most vascular; when the underlying or indurated portion is reached the bleeding becomes less troublesome, and the scissors or knife should then be substituted for the curette, and the diseased tissue removed piece by piece until the healthy structure, as detected by the touch, is reached; the parts are then sponged as dry as possible and quickly filled with styptic cotton wool until the conical cavity made in the uterus is firmly packed with it, a few layers of the same dressings being tightly put in the upper part of the vagina, and the remainder of that canal tamponed with cotton wet in carbolic water. The vaginal tampon should be removed within forty-eight hours, except the styptic cotton in its upper part, which, together with that in the neck of the uterus, should be left until the fourth or fifth day; on its removal, the conical excavation of the cervix should be filled with cotton wool wet in a solution of chloride of zinc of the following strength: —

Ry Zinci chloridi	3v.
Aquæ distillat.	℥i.
M. Ft. sol.	