irrigation, whilst insuring a continuous and copious stream of fluid, should be free from any undue tendency to stretch the walls of the urethra.

These conditions I have obtained by the following apparatus and mode of procedure.

I have had catheters made, some in vulcanite and others in soft India-rubber, by Messrs. J. and W. Wood, of King Street, Manchester, with a deep spiral groove from tip to stem on their outer aspect. The catheter ends, as represented in the accompanying engraving, in a hollow bulb perforated with two large apertures directed backwards. The other extremity of the catheter is adapted for the ready attachment of India-rubber tubing. The groove in the catheter is made with a depth double the capacity of the central tube, so that the facilities for the return of injected fluids are greater than the requirements; and, in consequence, there is no excessive pressure on the urethra, the outflow being more than ample for the inlet of the irrigating fluid.

In using the irrigator, it is passed to different lengths of the urethra, after the manner of an ordinary catheter, according to the nature of the case, the aim being to get well behind the furthest limits of the diseased surface. The distance can be roughly estimated by the clinical features of the case, and by testing how far back the discharge can be pressed out of the urethra.

When introduced, a length of India-rubber tubing is attached to the irrigator; and the other end of the tube, passed through a leaden weight, is placed in a vessel containing the fluid to be used, and elevated above the body of the patient. The tube being made to act as a syphon, the strength of the stream can be regulated by the height of the vessel, and by this means a simple and complete control can be exercised over the force brought to bear upon the surface of the urethra and the feelings of the patient. The bulbous extremity of the catheter practically restricts the action of the fluid to the urethra in front, and prevents any of the injection from passing backwards into the bladder. The direction of the stream is also influenced by being diverted forwards within the hollow bulb. The irrigation of the urethra being regarded merely as a measure preliminary to treatment, it remains, after the mucous membrane has been thoroughly cleansed, to apply one or other of the various topical solutions we are in the habit of using; and this can be easily accomplished by connecting a syringe to the irrigator after the rubber tubing has been removed.

ON TAPPING THE BLADDER FROM THE PERINEUM THROUGH THE HYPERTROPHIED PROSTATE.

BY REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

IN the JOURNAL of December 24th, 1881, I reported a case where I had performed puncture of the bladder for retention of urine from the perineum through an enlarged prostate. I am now enabled to complete the history of that case.

After the bladder was tapped, for about six weeks my patient passed urine through the prostatic cannula. His health rapidly improved, and he was able to go about as if nothing ailed him. Then it was noticed by us that urine in gradually increasing quantities began to flow through the natural passage, so much so as to lead me to infer

that, for some reason or other, the prostate was ceasing to obstruct micturition.

On January 28th, I removed the prostatic cannula; the puncture healed in the course of a few days, and with this the bladder gradually proceeded to recover its natural function and power. It must be remembered that, for over two months, I had resolved the patient's act of micturition into the simple mechanism of turning a tap. During the day-time, he now holds his urine for two or three hours, and at night he gets up twice, and sometimes thrice, to micturate. It may be said that all functional symptoms of enlarged prostate have ceased to exist.

On the day of his admission into the infirmary, when the puncture was performed, rectal examination, made both by my house-surgeon, Mr. Laimbeer, and by myself, left no doubt that the prostate was greatly enlarged. Upon this point, there could be no other conclusion. Now we find that the enlargement has almost disappeared; in fact the finger, by the rectum, discovers but little that may be regarded as abnormal—a strong contrast to what previously existed. Here, then, we have a case where a surgical proceeding on an enlarged prostate was followed by its rapid atrophy, a result which, so far as I know, has not been noted before. It may be urged that rectal examination affords evidence that only one side of the enlarged gland has thus become reduced; it must, however, be remembered that a return of the power and function of micturition warrant a conclusion that a corresponding change has taken place in the vesical aspect of the gland.

Though I am only at present able to narrate one case, it will be taken for what it is worth, and as capable of being imitated.

I desire to record it as bearing upon the radical treatment of an affection for which little has hitherto been done.

Appended is a short description, with an illustration, of the instruments I have devised for this operation, which have been made for me by Messrs. Krohne and Sesemann.

Fig. 1 represents the Trocar with Cannula complete. A piece of India-rubber tubing is to be attached below the collar of the cannula on withdrawal of the trocar, to convey the urine into a receptacle.—Fig. 2. Silver cannula, which is introduced in tube of Fig. 1 to form a probe end, and for retaining it.—Fig. 3. A plain silver tube with which to clear tube (Fig. 2), in case of it being blocked up.

The trocar is hollow, and urine escapes through it as soon as it enters the bladder. The shield on the tube (Fig. 1) is movable, and can be fixed at any desired position to suit the varying thickness of prostate and tissues. The instrument is adapted for other purposes than that referred to in this communication.

POISONING BY PHOSPHORUS BY THE RECTUM.—Landerer relates in the *Archiv der Pharmacie* for the present year a case in which a woman, in order to come into the possession of a large inheritance, poisoned a boy, aged 15, by introducing the ends of phosphorus matches into his rectum. The boy died the same night, with very severe pain and inflammation of the rectum. The murderess committed suicide soon after her apprehension.