so as to compress the sphincter. It is the universal statement of patients that the injection can be given more satisfactorily and with less uneasiness when the bowels have been emptied. Two injections a day should be given. Since the injection interferes slightly with digestion, it should be given either one hour before or three hours after a meal. No pain except that of slight distention of the bowel is felt unless air is present in the apparatus. Although artificial waters have been said to cause pain, the following formulæ have been used without any difference of effect from natural waters having been noticed by the patient:

℞. Sodium sulphide, pure,
Sodium chloride.....āā gr. v.
Water..... f ʒ xxij. ℿ.

This is the formula first used at the Philadelphia Hospital. The hydrogen sulphide is formed by the action of the carbonic acid on the sodium sulphide substantially according to the following reaction:

$$Na_2S + H_2CO_3 = Na_2CO_3 + H_2S.$$

When pure sodium sulphide is not attainable, the *potassium sulphuretum* or corresponding sodium compound may be used. These must be used in rather larger proportion, and produce an objectionable white precipitate of sulphur.

When a stronger sulphur water is desired than that produced by the above formula, the following may be used:

℞. Sodium sulphide, pure..... gr. x
Dilute hydrochloric acid, U. S. P. ℿ xxx
Water..... f ʒ xxii.

Mr. Kyner, who has proposed this formula, prefers to keep the liquid on hand after use, and freshen it up for subsequent use by additional quantities of sodium sulphide and dilute hydrochloric acid. The freshening up should be done whenever the liquid ceases to smell of the hydrogen sulphide. A liquid so kept seems to acquire more nearly the characteristic odor of the natural water. If the sulphur water is of sufficient strength, the patient's breath will, in about five minutes after beginning the administration, darken lead acetate paper, and will continue to smell of gas for an hour after the process is discontinued. It may be well to remark that metals, especially silver, are readily tarnished by the sulphur gases.—*Polyclinic.*

ON THE LOCAL TREATMENT OF THE BLADDER.

BY PROF. ULTZMANN.

The local treatment of the bladder should only be undertaken in the chronic forms of disease, since in the acute process appropriate dietetic and therapeutic measures bring about a cure in a short time. In the majority of cases we have to do with chronic catarrh of the bladder, in which we must manage the treatment according as the disease affects young or old persons and according to its etiological origin. If it is a case of a young individual where the catarrh is only an extension of a gonorrhœal process in the posterior urethra, then the treatment of the neck of the bladder must also be pursued in connection. This is best accomplished by placing the patient in the horizontal position, with the pelvis raised, and then introducing a thin catheter (No. 7 English), with a short piece of rubber tubing attached to it, with which the bladder is emptied. The catheter is then withdrawn about three centimetres into the neck of the bladder, and, with a syringe, about 200-300 grammes of tepid medicated fluid gradually injected. If no fluid flows back, it is the best proof that the eye of the catheter is in the right place. After the injection the patient should stand up and empty the bladder himself, so that the whole medicated fluid passes over the diseased neck a second time. Soft catheters are not good for this kind of injection because the pressure of the fluid easily forces them out. If the bladder of itself, is insufficient to expel the fluid, then it must be removed again by the catheter, and this is best done in the upright position.

When the disease affects the fundus of the bladder only, then the treatment is directed to that part alone. It must be carefully washed out with a soft elastic catheter till the fluid flows back quite clear. This can best be done in the upright or sitting positions, since then