

So that the only operation left is the interstitial injection of some irritant fluid into the gland. Numerous substances have been used and with success. Very lately Professor Moestig, of Vienna, has been using iodoform. He injects 15 to 30 minims of the following solution: iodoform 1; ether 5; olive oil 9. He has found that in each of 79 cases so treated there has been a decided decrease in the size of the neck. In substernal goitres the injection of a superficial part seems to be successful. He says that as compared with iodine as an injection the advantages of iodoform are that inflammatory complications never occur, suppuration never having been observed by him.

Ergotin, tincture of iron and Fowler's solution have also been used, but with not perhaps as much success as tincture of iodine. This is the remedy recommended by the great majority of surgeons, and lately by Terrillon, surgeon to the Salpêtrière, who has had large experience with this and other remedies used parenchymatously.

He makes the following observations as very necessary for the operator to note:—

"1. Be sure to penetrate the substance of the tumor before pushing the injection. 2. Avoid, as far as possible, transfixing the veins which ramify in the cellular tissue on the anterior aspect of the neck. The patient should be made to take a full breath, during which the swollen jugulars become prominent. 3. Have a hypodermic syringe that is clean, in order to avoid the introduction of infectious germs. Leave the syringe with its needle for a certain time in boiling water before using."

The veins may easily be made prominent also, by winding a piece of tape round the base of the neck and they will be thus avoided, a matter of much moment.

The needle should be pushed boldly but slowly into the gland to the depth of at least four-fifths of an inch, in order to avoid infiltration of the cellular tissue of the neck, which causes suppuration. He counsels, that when the needle is pushed in, the bowl be unscrewed, leaving the needle open at the base, to see whether any blood flows from it. This is an extra precaution to prevent injecting iodine into a vein. Of course if blood flows another place is chosen and dealt with in a similar manner. The syringe is screwed on and seven or eight minims of pure tinct. iodine is injected. The needle should not be immediately removed, other-

wise, the fluid would follow its course and infiltrate the cellular tissue instead of being diffused in the parenchyma of the gland. Usually the patient experiences nothing more than a slight pain and a little swelling, and then the quantity is increased as may be desired. The injections should be made one at a time and a few—four or five, days apart in order to guard against iodism. Even if the pains be rather severe in the lower jaw, teeth, back of the neck, shoulder or chest they need not give alarm as they usually quickly subside. Suppuration is rare if the technique of the operation be perfect.

One injection has been known to cure a goitre, but usually they have to be repeated, frequently up to say twenty, produce a cure. The action of the agent is to produce cicatricial tissue at the place where injected, which by shrinking at the various points produces atrophy of the gland, in a similar manner to the atrophy of the liver by the increase of fibrous tissue caused by any undue irritation. The goitre undergoes a fibroid transformation.

It may seem unnecessary to caution the operator about going *too deep* with the needle, but Semon's plan of having the patient swallow with the needle in position is a good one. By noting the movement of the needle inserted into the gland one may be sure whether its point is beneath, in, or above the tumor, a matter of the utmost importance.

EXECUTION BY ELECTRICITY.

"Electrocution" is the term invented by our American cousins to express the idea of paying the death penalty through the agency of the electrical current. The daily press, as is usual with them, kept public attention riveted upon the unfortunate Kemmler for weeks before the execution took place, and the topography of the jail at Auburn, the situation of the doomed man's last seat on earth—the fatal chair—its size, shape, color and general appearance, formed the subject for many pen-pictures by reporters, anxious to secure for their respective papers a due share of prominence in the present struggle to lay before the public a description of the most revolting and blood-curdling scenes enacted in the world. It has long been considered necessary to the public welfare that executions shall be conducted privately. But if the daily press be allowed to exult in