

glass cylinder, since the dome, having become lighter, no longer exerts sufficient pressure to depress the water below the mouth of the feed pipe. The feed pipe then operates again, and a new generation of gas takes place which, in its turn, stops the flow of water.

The whole process is automatic, extremely sensitive, and perfect in its regularity. Just leave it alone, and it will do its work. The only labor required is that of emptying the generators and refilling them with carbide.

### FEEDING THE GENERATORS.

The work of filling the generators is done as follows :—

As soon as the indicating rod (No 16) rises an inch in the little phial on the lid of the generator, that indicates that the quantity of carbide is exhausted and a new provision required.



First open the generator and remove its lid. In order to do this, it is necessary to raise to a perpendicular position the semi-circular plate (W) which lies on the lid, and this raises, at the same time, the straight rod which works the feed pipe cock (No 4). The moment this rod is put in a vertical position, it closes the cock of the pipe, which carries water to the carbide. The semi-circular plate, put in a vertical position, closes the connection between the gasometer and the generator, thus preventing any return of gas from the gasometer to the generator. It connects, at the same time, the generator and the escape pipe, and causes the escape of what little gas may remain in the generator.

These three operations are done by the one movement.

Then the last obstacle remaining on the lid of the generator is removed in making likewise the last rod take a vertical position which thus opens the air cock (No 3).