Part of the carbonic acid and sulphureted hydrogen being removed in the foregoing apparatus, the purifyers are brought into requisition to do the remainder of the purification. The purifyer shown in the section is what is called water luted, that is, the covers are sealed in water. Other types called the lutless, are made tight by means of an India rubber joint instead of a water seal. The box part of the purifyers are made of cast iron plates with lugs and ledges to carry the wooden grids or trays that carry the purifying material. This consists of natural bog ore found in Quebec, the composition of which is as follows:

H_2 O.....	50%
Hydrated oxide or iron.....	32%
Vegetable matter.....	18%

Should contain only 25% of moisture when put into purifyers.

Also artificial oxide of iron called iron sponge, and the residue of chlorine used in bleaching works called Weldon mud. These three are all capable of removing sulphuretted hydrogen; also lime (caustic lime) is used with water added or slaked. This removes sulphuretted hydrogen, carbonic acid and carbon bisulphide. Where the complete elimination of sulphuretted hydrogen is necessary, lime must be used. The advantage of using oxide of iron or bog ore is, that they can be revivified and used over and over again until they have absorbed about 50% of free sulphur. The spent material is sold to chemical works, who extract the sulphur for the manufacture of sulphuric acid.

Before the gas is stored in the gas holder, it is measured in the station meter. This enables a check to be kept on the make of gas, and also the difference of the total quantity sold in the district and that registered on the station meter at the works, represents the unaccounted for gas and leakage.

These meters are of the wet description, and in works of any size are quite artistically or ornamentally designed. The outside casing is of cast iron: within this about half way immersed in water is the meter drum of wrought iron sheet mounted on a shaft. This drum is divided longitudinally, with vanes or blades placed diagonally or screw fashion, one end of the drum is open, the other closed. The closed end is made to take the inlet pipe. Now the drum is made to revolve by the pressure of the gas acting in the blades or vanes: the shaft is geared to a train of wheels which register say from one hundred to one hundred million cubic feet per revolution. The water in the meter is kept at the same level by means of an overflow. You will quite see that by taking the reading of this meter say every hour, a good check can be had in the make of gas during any part of the day or night.