Corbeil (20 miles above Paris).....	Dissolved Oxygen	=	9.32	CC	per litre.
Epinay (below all the sewers).....	"	=	1.05	"	"
Pont de Poissy (49 miles below Paris)..	"	=	6.12	"	"
Pont de Meulan (58 miles below Paris).	"	=	8.17	"	"
Mantes (68 miles below Paris).....	"	=	8.96	"	"
Vernon (94 miles below Paris)	"	=	10.40	"	"

These numbers are very easy to explain when we consider that the decaying organic matter brought into the river by the sewage of Paris consumes the dissolved oxygen, and is by this consumption of oxygen, converted into other and comparatively harmless compounds, so that, at a point 90 miles below the city and 70 miles below the sewer mouths, the river regains its normal condition as far as this factor is concerned.

Carbon di-oxide, or carbonic acid gas is much more soluble than oxygen. Roughly we may say that water dissolves its own volume of this gas. The only other gas which I shall mention is ammonia, and the extreme solubility of this gas in water is well illustrated in the experiment before you, in which the first portions of water entering the large flask filled with ammonia gas dissolve the whole of the gas thereby creating a vacuum into which a fountain plays—the red liquid (a slightly acid solution of litmus in water) being constantly changed into blue in the fountain jet, and thus bearing witness to the alkaline character of the ammonia.

The solubility of gases in water becomes less as the temperature rises. It is for this reason that water that has been boiled and allowed to cool makes so flat and insipid a beverage. The atmospheric gases, and particularly carbonic acid gas, have been expelled at the boiling temperature, and the water requires artificial aëration before it can become again a sparkling and palatable drink. Under increased pressure a very much larger amount of gas can be held in solution. Effervescing drinks like soda-water, ale and champagne are kept in strong bottles with corks wired down. When the bottle is opened, and ordinary atmospheric pressure applied to the surface of the liquid, the excess of gas which could only be kept in solution by abnormal pressure escapes, and gives the sparkling effervescence characteristic of these beverages.

Unlike gases, a rise in temperature is usually attended with a