*Remarks on the use of the Alkaline Carbonates, for the prevention of Incrustation in Steam Boilers.**By MR. ALFRED ANDERSON.*

The Author gave the results of his experience, that the addition of carbonates of soda and potash prevent incrustations in boilers, as Kuhlmann and others had previously observed. He states that the addition of organic matters, such as rice-meal, was also found advantageous.

*Detail of some Experiments on the Gases generated in a Sewer.**By MESSRS. MAURICE SCANLAN AND ALFRED ANDERSON.*

The experiments by the authors were made upon the sewer in Friar Street, Southwark.

The sewer was in a very foul state, being 5 feet from the floor to the roof, and containing between 3 and 4 feet of deposit, which evolved a gas of a most powerful and filthy odour. To collect it, the authors used a circular funnel of tin-plate, which was inverted in the sewage matter of the sewer, and there kept floating at the surface by a board; to the top of this funnel was connected a gutta-percha delivering tube, from which the gas was obtained. The pressure of the gas was capable of overcoming that of 4 inches of water. The greatest amount collected in 24 hours amounted to 34 cubic inches, from an area of one square foot.

The chief circumstance of chemical interest connected with this subject, upon which very little has as yet been done, is the probable existence of the bisulphide of carbon in this sewer at the time of the experiments. Being, however, a very difficult substance to detect at any time, and more particularly when mixed with so many other compounds, the observations as to its positive existence are not to be considered as conclusive. At times its peculiar odour was strongly developed. Alcohol, through which the gas had passed, acquired a peculiar odour, resembling that of onions. In distilling this solution, results were obtained, confirming, to a certain extent, the existence of sulphide of carbon.

The mixture of gas was found to consist of sulphuretted hydrogen, carburetted hydrogen, carbonic acid and phosphuretted hydrogen; of the two latter a considerable proportion. A few minutes' exposure to the gas was sufficient to produce headache and nausea. The quantitative examination of the gases was not made.