

The French report was unfavorable for the following reasons:—"The gas was not saturated with illuminating hydrocarbons, and was consequently *inodorous*; it was not of itself luminous, but was employed to heat to intense whiteness small cages of platinum, which were suspended in the flame, and furnished the luminous body. Being inodorous, the escape of the gas could not have been detected, hence the dangers arising from accidental leakage were excessive."

I shall now give a few quotations from the opinion of some chemists of eminence—and of others who, although not so noted, are possessed of very high qualifications—regarding the safety of Water Gas.—(See *Appendix "C."*)

It may be proper to remark, that the analyses of Water Gas, given both in Mr. Littlehales' letter and the "Report," are not analyses of gas made by the Lowe Process, but of that made by another one, which contains a larger amount of Carbonic Oxide than what has been found in the gas made here by the former process, which has averaged about 21%. The analyses of Coal Gas given, are about the usual averages; as the Carbonic Oxide and other gases present usually vary, according to circumstances, as they do in Water Gas; and Carbonic Oxide may be present in Coal Gas to as great an extent as 12%, or even higher.

It is worthy of note that Mr. Littlehales, in his analyses of *Coal Gas*, has called the "Marsh Gas" (the destructive fire damp of coal mines) by another of its appellations, "Light Carburetted Hydrogen," while in the analyses of the *Water Gas* he calls it "Marsh Gas."

As the dangerous character of the gas is further attempted to be shown by the number of deaths which it is claimed have taken place in New York and here from its use, it will be well for me to consider the accuracy of the statements made, and the correctness of the deductions drawn therefrom.

Mr. Littlehales says: "In the last two years there have been recorded in the public press of the City of New York no less than eleven deaths from suffocation, every one of which was caused by Water Gas, and which I venture to say is a greater number than can be traced to Coal Gas in the whole of Europe in the same time." Of course, he means it to be understood that these deaths took place in New York. With reference to the reported deaths in New York, I would say that I got a friend *there*, to make particular inquiries as to the correctness of this statement, and the following is his reply —