

Thus the enormous aggregate of sixty million feet was provided for; and even this would not exhaust the supply already existing. Sixty-five to seventy million cubic feet were daily wasting—in the Murrysville district alone.

The aggregate wastage as indicated by data still more recent, surpasses all which would be suspected from the facts given above. It is alleged (March, 1886), that in the entire gas field about Pittsburgh, two hundred and sixty-four million cubic feet of gas are daily wasted. One thousand cubic feet are estimated to equal one bushel of coal in heating property. This would make an equivalent of two hundred and sixty-four thousand bushels of coal burned in the air each day. A miner can, on an average, dig seventy bushels of coal a day. The waste then, would be, in round numbers, equal to the daily work of thirty-eight hundred miners—or about the whole number employed in the Pittsburgh district.

This gas is a complex mixture of hydrocarbons. It differs from coal-gas, as also from gas made from petroleum. Its main ingredient is "Marsh gas," which, next to hydrogen, is the lightest substance known, consisting of seventy-five per cent of carbon and twenty-five per cent of hydrogen, and having a specific gravity of 0.5576, that of air being unity. The mixed natural gas has a specific gravity ranging from 0.51 to 0.7. That supplied to Pittsburg may be averaged at 0.6, from which it would appear that the gas for which provision was making in 1884, was equivalent to about forty-nine hundred tons of bituminous coal in heating capacity.

For heating purposes, natural gas excels coal gas thirty-three and one-third per cent. Used in the crude way twenty cubic feet of gas equal one pound of coal. Used in the ordinary way, 11.29 cubic feet equal one pound of coal. Used in the most economical way, 8.92 cubic feet equal one pound of coal. For illuminating purposes it possesses only half the value of good coal gas; although it has been asserted of the Fredonia gas that it equals coal gas in respect to intensity of light, and is consumed but half as fast.

The industrial changes effected in the city of Pittsburgh by