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COALITE, A SUPERIOR FUEL TO COAL.

A new fuel, the use of which is claimed to be more advantageous than coal, is being put on the English market under the name of "Coalite." It has been given much publicity in the columns of British journals.

It is claimed that this fuel will burn under any ordinary conditions without emitting smoky gases, and that it has a higher heat efficiency than the best Welsh steam coal. We have had several enquiries asking for information regarding this new fuel, and for the benefit of those, and many others who will doubtless be interested, the following particulars, taken from the London Standard are given:—

"Coalite is obtained by the distillation of bituminous coal of any size or quality, and the process consists in carbonizing such coals for a period of eight hours in flat, rectangular retorts, ten feet in length, which are placed vertically in a gas-fired furnace, the temperature of which is kept at 800 degrees F., a temperature which just shows a dull red glow when shaded from strong light. These retorts being filled, the swelling of the coal on heating causes a considerable pressure, and results in the formation of a product of good density, while the low temperature prevents the whole of the volatile matter from being expelled, and yields a substance which, although it has a superficial resemblance to coke, differs widely from it in many important points. Each retort takes 15 cwt. of coal at a charge, and yields approximately 11 cwt. of coalite, but this varies with the composition of the coal used, so that, although in most cases the yield is 70 per cent. of the coal taken, it may be slightly higher or lower.

"The temperature at which coalite is formed is nothing comparable with the white heat to which ordinary gas retorts are subjected, with the result that the constituents of which illuminating gas is composed remain behind in coalite to an extraordinary extent. The presence of so great a proportion of the gaseous elements of coal also secures the easy ignition of the fuel and its burning with a gentle flame; while the removal of the superfluous volatile elements deprives it absolutely of the power of emitting smoke at any time during its combustion."

A smokeless fuel that will even compare in value to bituminous coal is much to be desired, especially in view of the stringent laws that are being passed in almost every large city for the prevention of smoke. If this new fuel is all that is claimed for it consumers will welcome its speedy advent. Not only will it be possible to use it for manufacturing and domestic purposes, but also under locomotives, the smoke from which is very noxious, particularly where much shunting is done within or near the city limits.

Professor Vivian B. Lewes, of the Royal Naval College, Greenwich, has made some exhaustive tests with "Coalite," and his report on same contains some very interesting figures. According to the report, "Coalite" has a heating value of 13,500 B.T.U. per pound. That of bituminous coal averages 14,800 B.T.U. These figures would lead one to believe that coal is superior to "Coalite," but it is claimed that it is not, owing to the fact that on combustion most of the calorific value of "Coalite" is converted into heat. Exhaustive tests have shown that about 50 per cent. only of the calorific value of coal can be obtained from it. On this basis,