

United States Patent Office.

EDWARD JOSEPH DE SMEDT, OF NEW YORK, N. Y., ASSIGNOR TO NEW YORK IMPROVED ANTHRACITE COAL COMPANY, OF SAME PLACE.

Letters Patent No. 103,580, dated May 31, 1870.

IMPROVEMENT IN THE MANUFACTURE OF ARTIFICIAL FUEL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD JOSEPH DE SMEDT, of the city, county, and State of New York, have invented a new and improved Composition of Matter to be used as a Fuel; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists in combining the asphalt obtained from Trinidad and other of the West India islands with anthracite or bituminous coal.

The process of manufacture is as follows:

The coal may be cracked, broken, or pulverized, by any suitable mechanical means, about as fine as coarse sand. In practice, however, it would be preferable, on the score of economy, to use the dust refuse of coal, which may be obtained in unlimited quantity in the vicinity of mines, and also from the yards of dealers throughout the country, at an inappreciable cost.

The coal dust and asphalt or bitumen are well mixed, and heated by an ordinary furnace, and well stirred while being heated. They are brought to a degree of heat sufficient to cause the particles to adhere together and form a conglomerate mass capable of being molded and compressed into compact masses through the medium of any suitable apparatus.

The proportion of the above-named ingredients should vary according to the use designed for the fuel. For ordinary stove purposes the amount of asphalt or bitumen should be comparatively small, say, from two to four per cent.; but for smelting furnaces, and, in other cases, where a long flame surface is required, and a high degree of heat well distributed in circuitous flues, the proportion of asphalt or bitumen should be from ten to twenty per cent. The greater the percentage of the latter-named substance, the greater the combustibility of the fuel will be, and, consequently, the more intense the heat.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The composition of matter formed by combining Trinidad bitumen or asphalt and other bitumens or asphalts which are obtained from the West India islands, with anthracite or bituminous coal, either with or without a flux, substantially as described, for the purpose specified.

E. J. DE SMEDT.

Witnesses:

CHAS. SCHENK,
G. M. ACKERMAN.