UNITED STATES PATENT OFFICE.

MAX SALOMON AND GEORGE SALOMON, OF CINCINNATI, OHIO, ASSIGNORS TO SAMUEL S. EINSTEIN, OF CINCINNATI, OHIO.

FUEL-BRIQUET AND PROCESS OF MAKING SAME.

965,541. Specification of Letters Patent. Patented July 26, 1910.

No Drawing. Application filed April 19, 1910. Serial No. 556,389.

To all whom it may concern:

Be it known that we, MAX SALOMON and GEORGE SALOMON, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Fuel-Briquets and Processes of Making Same, of which the following is a specification.

This invention has reference to improvements in fuel briquets and more especially in briquets wherein powdered coal dust is employed as the base. It comprehends primarily the production of a briquet composed of coal dust, resinous matter, and a suitable binder, the component mass, after having been molded, possessing a high coefficient of heat and retaining its form without danger of crumbling or disintegration during handling and during its initial stages of combustion.

The improved briquet is constructed in the following manner and from the following ingredients:—One ton of coal dust is dried and thoroughly heated after which 50 lbs. of powdered resin are sprinkled over the dust and mixed thoroughly therewith. Over the mass thus formed 3 gallons of glue, preferably of the brand known as "crystal cement", are poured in a slightly diluted state over the mass of dust and resin and the three elements then thoroughly mixed, the coal dust being kept at a temperature of about 40° during the mixing operation. The final mass is then placed in suitable molds and compressed in the ordinary manner.

The resin employed renders the briquet capable of ready ignition while the glue serves to cohere the particles of dust and resin as will be apparent.

"Crystal cement" consists of one pound of ordinary carpenter's glue to which is added two tablespoonfuls of Portland cement, the mass thus formed being heated until it reaches the boiling point. This mixture when cool solidifies and becomes as hard as rock. However, while the cement is still hot it is poured over a mixture of coal dust and resin and coacts with the resin to serve the function of a binder for the entire mass. Resin is employed not only for the purpose of ignition but also cohesion, inasmuch as the cement will not act as a binder without the resin.

What is claimed is:

1. A process of producing a fuel briquet which consists in heating and drying coal dust, mixing powdered resin with the coal dust, and finally in pouring liquid glue over the mass and again mixing the same in the presence of heat.

2. A fuel briquet composed of coal dust, powdered resin, and a binder formed of glue and Portland cement, the binder being heated to the boiling point and being poured over the mixture of coal dust and resin while heated, the resin coacting with the cement to complete the binder.

In testimony whereof we have hereunto set our hands in presence of the subscribing witnesses.

MAX SALOMON.
GEORGE SALOMON.

Witnesses as to the signature of Max Salomon:

JACOB S. HERMANN,
A. V. KANE.

Witnesses as to the signature of George Salomon:

W. RAMSAY,
A. R. CALDWELL.