

UNITED STATES PATENT OFFICE.

GEORGE M. DALLAS, OF CHICAGO, ILLINOIS, ASSIGNOR TO EZRA S. BOOTH,
OF CHICAGO, ILLINOIS.

COMPOUND FOR PROMOTING COMBUSTION IN COAL.

SPECIFICATION forming part of Letters Patent No. 744,908, dated November 24, 1903.

Application filed June 22, 1903. Serial No. 162,626. (No specimens.)

To all whom it may concern:

Be it known that I, GEORGE M. DALLAS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Compound for Promoting Combustion in Coal, of which the following is a specification.

This invention relates to compounds for promoting combustion in coal, and has for its objects the utilization and consumption of the carbonaceous gases which form into smoke and are lost. It also increases the heat units of coal.

This invention consists of a compound composed of two hundred and forty-five parts, by weight, of air-slaked lime; seventeen parts, by weight, charcoal; twenty-five parts, by weight, common salt; two parts, by weight, soda ash; two parts, by weight, sulfate of zinc; five parts, by weight, of paraffin-wax, and five parts, by weight, of brimstone.

The several ingredients of the compound are thoroughly pulverized and incorporated together. It is then ready for use.

With this compound the combustion of any form of coal, either bituminous or anthracite, is promoted to such an extent as to make the coal practically smokeless when burning. In order to accomplish this result, all of the large lumps of coal should be broken into pieces the size of a goose egg or smaller. Then dampen all the coal with water. The compound is then sprinkled over the coal, using eight pounds of the compound to every ton (two thousand pounds) of coal. The coal is dampened for the purpose of causing the compound to adhere to it more readily. The same results may be obtained by sprinkling the compound

on the dry coal after the coal has been put in the stove, grate, or furnace and ignited. 40

The compound is not dangerous and may be safely shipped from place to place in bulk or by putting it into sacks, boxes, or barrels, as may be required.

This compound increases the heat units of coal, as well as making it sootless and diminishing the clinkers to such an extent as to make the residue or ash thereof nearly or quite cinderless. The combustion is perfect, as the ingredients of the compound as incorporated will insure the consumption of all the gases generated. The coal is thereby made smokeless and there will be no clinkers or disagreeable odors. 45 50

Having thus fully described the invention, what I desire to claim and secure by Letters Patent is— 55

The herein-described compound for promoting combustion of coal, consisting of a mixture of two hundred and forty-five parts by weight of air-slaked lime, seventeen parts by weight charcoal, twenty-five parts by weight common salt, two parts by weight soda ash, two parts by weight sulfate of zinc, five parts by weight of paraffin-wax and five parts by weight of brimstone, all combined in the manner specified and for the purposes set forth. 60 65

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 70

GEORGE M. DALLAS.

Witnesses:

MICHAEL J. STANTON,
WILLIAM MONAHAN.