

UNITED STATES PATENT OFFICE.

JACOB AUTENRIETH, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN EXTINGUISHING FIRES.

Specification forming part of Letters Patent No. 119,104, dated September 19, 1871.

To all whom it may concern:

Be it known that I, JACOB AUTENRIETH, of Newark, in the county of Essex in the State of New Jersey, have invented a new and Improved Compound for Suppressing Fires; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same.

This invention relates to a compound made of coal-dust, saltpeter, sulphur, and chalk, mixed together in such proportions that when the same is ignited, the gases evolved from the compound are sufficient to suppress or eventually extinguish a fire in a room or in the hold of a vessel, or in such other places where it may be difficult to reach the source or exact locality of the fire.

The proportion in which I mix the ingredients of my compound together is about as follows: Coal-dust, three parts; saltpeter, thirty-four parts; sulphur, nineteen parts; chalk, sixteen parts. All the ingredients are reduced to fine powders and then they are intimately mixed and introduced into a metallic cylinder, the ends of which are closed by means of paper saturated in a solution of coal-dust, niter, and sulphur, or of any other material or compound which will render the paper highly combustible and impart to it the property to glow for a pretty long time without producing a flame. After the cylinder has been charged with my compound a fuse is inserted, and the ends are closed, as above stated, the fuse being permitted to project beyond said ends.

If a fire occurs in a room or space otherwise accessible, I light the fuse of my cylinder and drop the latter into the space where the fire is raging, and as soon as the compound contained in my cylinder begins to burn, the gases evolved thereby serve to suppress and eventually to extinguish the fire.

In practice, I propose to keep on hand a number of cylinders charged with my compound, so

that when a fire occurs a sufficient number of such cylinders can be thrown in the space where the fire rages to insure the suppression of the fire. For instance, on board of a vessel a large number of my cylinders may be stowed away in a convenient corner on the upper deck, and if a fire breaks out in the hold, where it is impossible to reach the spot where the fire originates, my cylinders are dropped into the hold at such intervals as circumstances will demand, and the fire can be kept down for a long time, so that the vessel will be saved. If desired, however, my cylinders may be permanently fastened in different rooms of a building and connected by suitable fuse, so that the compound will be ignited whenever a fire occurs in any part of the building.

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

1. The compound for extinguishing fires, consisting of chalk, saltpeter, sulphur, and coal-dust, compounded in the manner and about in the proportions specified.

2. A cylinder charged with a fire-extinguishing compound, as described, and having its end or ends closed by paper which is rendered combustible by being saturated or coated with a solution of niter or coal-dust, or their equivalents, as and for the purpose set forth.

3. A fire-extinguishing compound, consisting of coal-dust, sulphur, saltpeter, and chalk, arranged within a portable cylinder having its ends closed with paper rendered combustible by coating the same with a solution of coal-dust, niter, or sulphur, or their equivalents, as and for the purpose set forth.

This specification signed by me this 12th day of August, 1871.

JACOB AUTENRIETH.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.