

UNITED STATES PATENT OFFICE.

FRIEDRICH BUDY, OF LEIPSIC, SAXONY, GERMANY.

IMPROVEMENT IN FIRE-EXTINGUISHING COMPOUNDS.

Specification forming part of Letters Patent No. **191,306**, dated May 29, 1877; application filed March 3, 1877.

To all whom it may concern:

Be it known that I, FRIEDRICH BUDY, of Leipsic, in the Kingdom of Saxony and Empire of Germany, have invented a new and Improved Fire-Extinguishing Compound, of which the following is a specification:

The invention relates to a fire-extinguishing compound that absorbs rapidly, when ignited and thrown into any burning room, the oxygen of the air, and smothers the fire chemically by evolving gases that are antagonistic to the spread of the fire, the compound furnishing a compact, portable, economical, and effective agent for the extinction of fires, to be specially adapted in all places where the usual fire-engines and other extinguishing devices are not immediately applicable, and dispensing with the use of water and the damage frequently incurred thereby to the goods.

The invention will first be described, and then pointed out in the claim.

The compound is prepared of the following ingredients, and in about the following proportions: Twenty parts of chlorate of potash; ten parts of rosin; fifty parts of nitrate of potash; fifty parts of sulphur; and one part of peroxide of manganese. These substances are thoroughly moistened with a solution of silicate of soda, and formed by hydraulic pressure into blocks of suitable size, assuming, when dry, the hardness and density of stone. The compound thus prepared is provided with a fuse, and covered by a wrapper or case, that is made water and fire proof by a solution of silicate of soda and tungstate of soda, or other suitable ingredients.

When the extinguishing compound is to be used, the fuse is ignited, and the mass thrown into the burning room. The fumes developed

penetrate every available space, and smother the fire by the evolving fumes of sulphurous acid and carbonic-acid gas, leaving a small residue of sulphuret of potash, hydrate of potash, and chloride of sodium. The affinity of the sulphurous acid for the oxygen of the air, which it seeks to extract for the purpose of forming sulphuric acid, prevents every other process of oxidation in the room—which the burning of any object with flame may be considered—while the carbonic acid checks the progress of the fire and stifles it, as it takes the place or forces out the oxygen of the room. This joint action of the sulphurous-acid and carbonic-acid gases renders the compound so effective for closed rooms that it burns without injury to the surrounding objects, indicates the origin and location of the fire during its progress and after extinction, and produces no poisonous gases, being specially applicable in such cases when water is entirely insufficient—as in fires produced by the sudden ignition of coal-oil, turpentine, spirits, and similar substances.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A fire-extinguishing compound consisting of chlorate of potash, rosin, nitrate of potash, and oxide of manganese, moistened with a solution of silicate of soda, and compressed into a block, the latter being surrounded by a fire-proof wrapper and provided with a fuse, as set forth.

FRIEDRICH BUDY.

Witnesses:

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