

UNITED STATES PATENT OFFICE.

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FIRE-EXTINGUISHING COMPOUND.

SPECIFICATION forming part of Letters Patent No. 616,368, dated December 20, 1898.

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To all whom it may concern:

Be it known that we, JOHANNES STOCKER, chemist, residing at 70 Milowerstrasse, HERMANN ZANDER, private gentleman, residing at 5 Waldemarstrasse, and WILHELM DÖBLIN, private gentleman, residing at 9 Waldemarstrasse, Rathenow, in the Kingdom of Prussia, Germany, subjects of the King of Prussia, Emperor of Germany, have invented certain new and useful improvements in the manufacture of a liquid applicable for impregnating articles to render them non-inflammable and also for fire-extinguishing purposes, of which the following is a specification.

This invention relates to the manufacture of a liquid for the extinguishing of fire or the prevention of same by impregnation, by which is obviated the risk of damage from fire either to a person directly attacked or to entire buildings, such as dwelling-houses, warehouses, and manufactories. The liquid can be applied to all inflammable or combustible materials—such as the finest dress materials, curtains, draperies, theatrical costumes, and decorations of all kinds—by impregnation, and for the extinguishing of fires, either large or small, the liquid renders very important services when mixed with water. For instance, if a person's hands are moistened with the liquid he can handle burning objects, smoldering and burning timbers, or the like with uncovered hands and stifle the flames without feeling the heat or being burned. The preparation is also of the greatest utility when it is necessary for any reason to enter burning rooms. In such cases it is merely requisite to thoroughly moisten the clothing, face, hair, and hands with the liquid and the hair will not be singed or the clothing will not be damaged even should the wearer carry burning objects out of the fire.

In many industries this preparation will be of inestimable value, as it will save a good many working expenses and will protect the life and health of the workmen from dangers.

By means of the liquid produced by the present invention all kinds of fires may be immediately extinguished, whether caused by

bisulfid of carbon, petroleum, ether, benzin, 50
pitch, tar, or similar materials.

The liquid is prepared in the following way:

First — Preliminary. — Three hundred grams of silicic acid are intimately mixed with milk of lime. To this are added two hundred 55
and twenty-five grams of potash, two hundred and twenty-five grams of sulfate of strontium, and three hundred grams of Venice tale. By stirring the mixture a partial solution is effected. This solution is to be kept in readiness 60
for use when the liquid is being produced.

Second — Method of production. — Four hundred grams of rock-alum are dissolved in four liters of water and thirty-three and one-third 65
grams of bicarbonate of soda are added to this solution, which is stirred until thoroughly dissolved. Then thirty-three and one-third grams of pulverized burnt alum are added, and this mixture is again stirred until thoroughly 70
dissolved. When this is accomplished, five hundred grams of this silicic-acid mixture, composed and prepared as indicated in the preceding clause, is simultaneously, with six liters of water, slowly mixed with the solution by constant stirring. Finally, about 75
thirty grams of rice starch and five grams of sugar of lead are added to the mixture.

The liquid thus prepared constitutes the impregnating and fire-extinguishing preparation or compound above described. 80

If the preparation is intended to be used wholly and solely for the purpose of extinguishing fire and not for impregnating materials of any kind, the effect will not be interfered with by the omission of the rice starch 85
and sugar of lead.

We do not limit ourselves to the exact proportions named above, as they may be varied within considerable limits without injuring the valuable qualities of the compound. 90

Having now described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A fire-extinguishing compound containing silicic acid, potash, sulfate of strontium, 95
Venice tale, alum and bicarbonate of soda, mixed together substantially as described.

2. A fire-extinguishing compound contain-

ing silicic acid, potash, sulfate of strontium, Venice talc, alum, bicarbonate of soda, rice starch and sugar of lead, mixed together substantially as described.

- 5 3. A fire-extinguishing compound composed of silicic acid, potash, sulfate of strontium, Venice talc, alum, bicarbonate of soda, rice starch, and sugar of lead, in substantially the proportions specified, mixed together.

In testimony that we claim the foregoing as to our invention we have signed our names in presence of two subscribing witnesses.

JOHANNES STOCKER.
HERMANN ZANDER.
WILHELM DÖBLIN.

Witnesses:

HENRY HASPER,
C. H. DAY.