No. 776,011. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

SALLIE TAYLOR BOYD, OF NEAR GLASGOW, KENTUCKY.

FIRE-EXTINGUISHING COMPOSITION, &c.

SPECIFICATION forming part of Letters Patent No. 776,011, dated November 29, 1904.

Application filed August 12, 1904. Serial No. 220,532. (No specimens.)

To all whom it may concern:

Be it known that I, SALLIE TAYLOR BOYD, a citizen of the United States, residing near Glasgow, an incorporated city in the county of Barren and State of Kentucky, have invented a new and useful Discovery to Extinguish Fire and Germicide of Catarrh, &c., Composition of Matter, of which the following is a specification.

This invention relates to a composition of matter adapted to be used either as a germicide or fire-extinguisher.

The object of the invention is to present a composition of matter which shall be thoroughly effective in quenching fires of any character—that is to say, whether caused by burning wood or from oily substances—and which when employed as a germicide will be thoroughly effective in destroying the germs contained in expectorated matter from persons suffering with catarrh, pneumonia, consumption, or other infectious germ diseases.

The composition of matter is composed of the following ingredients, by weight: water, eight thousand pounds; sodium chlorid, seven hundred and fifty pounds; sifted wood-ashes, five hundred pounds; concentrated lye, two hundred and fifty pounds. These ingredients are thoroughly mixed and placed in a suitable tank from which they may be drawn when necessary. When used for extinguishing fire, the extinguishing property of the compound is materially enhanced by the addition thereto of crushed ice in the proportion of five hundred pounds to the proportions above stated. The most essential ingredient of the compound stated is the concentrated lye, it having been discovered that by mixing this with soft water alone it makes a most efficient fire-extinguisher and may be employed without the sodium chlorid and wood-ashes under some conditions, especially where the feed of the liquid will be by gravity; but where a force-feed, such as from an engine, is employed the other ingredients above named will be included. The function of the lye where the compound is used upon fires originating from oleaginous substances is that of a saponifier, and, as will be apparent, if the oily matter be saponified its combustible properties are accordingly lessened, if not entirely destroyed. Its use, therefore, will be exceedingly valuable in extinguishing fires from floors that are oil-soaked or where in a fire oil is liberated and falls upon a floor. The functions of the above-named ingredients are as follows: Water of course forms the vehicle for all of the ingredients, as will be apparent. The sifted wood-ashes form, in conjunction with the other elements, a kind of paste which will operate quickly to smother flames and check glowing embers by forming a shell or envelop thereon of non-combustible material. It further operates to center or confine the lye at points upon which the fluid strikes and is held from running off, which the lye alone would do. The lye, as above stated, operates to saponify any grease or oil with which it contacts and will assist the saponified mass, together with the other ingredients of the compound, to penetrate the burning substance, and thus effectively check and extinguish the fire. The sodium chlorid operates to soften the water and also to purify the fire—that is to say, dispel or prevent the formation of smoke, the presence of which is always a source of danger to the firemen and, further, greatly impedes their work. All the ingredients therefore, as will be seen, combine to produce a unitary and beneficial result and in practice will be found to secure all of the objects sought.

When the lye and water alone are used as a germicide or a cleansing medium—such as for use on floors, streets, and the like—it is placed in the cuspidors of public buildings or sanitariums and by being renewed twice in twenty-four hours will effectively destroy any germs deposited. Where sprinkled upon the street, either on the sidewalk, in the roadway, or both, all germs present in sputum of persons afflicted with catarrh, pneumonia, consumption, or other germ diseases will be effectively killed.

The proportions of the ingredients herein stated are those that have been found most effective in use; but it is to be understood that they may be varied, if found necessary or desirable, either to increase or diminish the strength of the compound, and it is to be understood for this reason that the invention is

not to be limited to the precise proportions stated.

Having thus described the invention, what is claimed is—

1. A composition of matter, consisting of water, sodium chlorid, sifted wood-ashes and concentrated lye.

2. A composition of matter, consisting of the following ingredients substantially in the proportions specified by weight, water eight thousand pounds, sodium chlorid seven hundred and fifty pounds, sifted wood-ashes five hundred pounds, concentrated lye, two hundred and fifty pounds.

3. A composition of matter, consisting of water, sodium chlorid, sifted wood-ashes, concentrated lye and ice, substantially in the proportions specified.

4. A composition of matter, consisting of the following ingredients, water eight thousand pounds, sodium chlorid, seven hundred and fifty pounds, sifted wood-ashes, five hundred pounds, concentrated lye, two hundred and fifty pounds, and crushed ice, five hundred pounds.

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

SALLIE TAYLOR BOYD.

Witnesses:
T. P. DICKINSON,
W. S. CARTWRIGHT.