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FIRE EXTINGUISHING COMPOUND

Acie J. Gilleo, Detroit, Mich., assignor to The
Outrite Fire Extinguisher Corporation, Detroit,
Mich., a corporation of Ohio

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This invention relates to improvements in fire extinguishing compounds, and also to a method of preparing the said compound.

It is an object of the invention to provide a fire extinguishing compound consisting primarily of a powdered material capable of liberating carbonic acid gas when decomposed by heat which is coated with water-insoluble wax and thereby rendered substantially water-repellant, non-caking and free-flowing, so that after standing for prolonged periods the compound may be readily discharged from a container.

Another object of the invention is to provide such a fire extinguishing compound wherein water-insoluble wax is mixed with the aid of heat with the powdered material so that a mechanical combination results, and wherein there is no fear of liberating carbonic acid gas which the said powdered material gives off when heated beyond a certain temperature at which a chemical change would result to the detriment of the compound as a fire extinguishing medium.

Other objects and advantages of the invention will become apparent from the following specification wherein I state both the ingredients employed and the ways in which they are preferably compounded.

I utilize a water-insoluble wax, such as beeswax, which must be rendered substantially liquid. This may be accomplished by heat alone, or by heating the wax and forming a solution with the addition of carbon tetrachloride. In the latter case care must be taken that the tetrachloride is not heated to its boiling point which is relatively low.

To the heated wax, or wax solution, I add some finely powdered silicate, such as fullers earth or kaolin, and while so doing I maintain the mixture in a heated state.

I then heat a finely powdered material capable of liberating carbonic acid gas when decomposed by heat, such as sodium bicarbonate, calcium carbonate or the like, to about 140 degrees Fahrenheit, which I find is a safe temperature sufficiently below its point of decomposition and one which will cause relatively rapid evaporation of the carbon tetrachloride when the latter is employed.

I pour the heated mixture containing the wax and the silicate into the heated powdered material and agitate it so that the latter becomes coated with the wax, and, as previously stated, the tetrachloride, when employed, is eliminated from the mixture by evaporation.

The powdered material and the silicate are

then found to be substantially water-repellant, free-flowing and non-caking. Moreover while a satisfactory result is obtained if the silicate is omitted I find that the latter does add to the free-flowing qualities of the compound.

Very satisfactory results are obtained by the employment of the above ingredients in substantially the following proportions by weight:

	Percent
Water-insoluble wax	1½
Powdered silicate	3½
Powdered material having the properties herein described	95

When carbon tetrachloride is used it is mixed with the wax in substantially equal proportion, though its addition does not ultimately change the proportions given above since it is subsequently eliminated by evaporation.

While in the foregoing the preferred ingredients, their relative proportions, and the method of compounding them has been recited, it is understood that the invention is susceptible to such alterations and modifications as fall within the scope of the appended claims.

What I claim is:

1. A fire extinguishing compound consisting of a powdered material capable of liberating carbonic acid gas when decomposed by heat, and beeswax with which said material is coated so as to render it substantially water-repellant and free-flowing.

2. A fire extinguishing compound consisting of a powdered material capable of liberating carbonic acid gas when decomposed by heat, a powdered silicate, and beeswax with which said material and silicate are coated to render them substantially water-repellant and free-flowing.

3. A fire extinguishing compound consisting of a powdered material capable of liberating carbonic acid gas when decomposed by heat and a water-insoluble wax which melts at substantially the same temperature as that at which the powdered material liberates carbonic acid gas.

4. A fire extinguishing compound consisting of sodium bicarbonate and a water-insoluble wax which melts at substantially the same temperature as that at which the sodium bicarbonate liberates carbonic acid gas.

5. A fire extinguishing compound consisting of sodium bicarbonate and beeswax.

ACIE J. GILLEO.

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