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COATING FOR WALLS OF ASPHALT CONTAINERS

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This invention relates to shipping devices and more especially to a method of preparing shipping tins for receiving bituminous compounds.

One of the objects of the invention is the provision of a new and improved composition for treating the inner surface of containers used for storing and shipping bituminous materials for preventing the same from adhering to the containers.

Another object of the invention is the provision of a new and improved composition of matter suitable to be applied to the inner walls of a receptacle for preventing adhesion of bituminous material thereto, and that may be readily detached from the walls of said receptacle when the bituminous material is removed therefrom.

A further object of the invention is the provision of a new and improved composition for use in coating the inner surface of containers for bituminous material that is inexpensive to prepare, efficient in use and that may be readily applied.

Other and further objects and advantages of the invention will appear as the description proceeds.

It is common practice with asphalt manufacturers in preparing asphalt of high melting point for shipment, to coat the inside of the container with some pulverulent matter held in suspension in water which, when the water is evaporated, will leave a thin coating of the material loosely adhering to the inside of the container. The most common material employed for this purpose is a solution of whitewash or calcium hydrate in water. This arrangement is objectionable because of necessity the coat is very thin and there is a decided tendency for the coating to check or crack on drying, thus exposing the walls of the container along these check marks or cracks. As a result, the asphalt will adhere to the walls of the container along these lines and consequently it is not only difficult to remove the asphalt from the containers but more or less of the asphalt will be lost.

The present invention seeks to eliminate this difficulty by the provision of an inexpensive comparatively heavy coating of pulverulent matter, and a binder that will loosely adhere to the interior walls of the container, that may be applied to the walls in the usual manner, and that will uniformly and completely cover the surfaces to which it is applied.

Any suitable pulverulent material may be employed, such as talc, finely ground limestone, dolomite, silica flour, or any other finely ground inorganic compound. Preferably a low grade talc, finely ground, is employed.

The powdered material is mixed with a suitable binder that will, when applied to the asphalt containers form a coating that will be continuous over the inner surface of the container to which it is applied, that is, it will not check or crack, leaving portions of the surface exposed. The binder should be such that it will hold the pulverulent matter on the surface, but will permit it readily to come off when the asphalt is removed. The binder is preferably of a frangible nature when dry so that when the asphalt is poured into the containers the entire coating will be more or less pulverized and distributed over the entire external surface of the asphalt, thereby preventing the same from sticking to the container. Bentonite is preferred as a bond because of its extraordinary property of remaining in suspension in a liquid for a great length of time, due to its finely divided condition and for its property of holding the talc, or other pulverulent matter in suspension in a finely divided condition and maintaining uniformity of density in the whole mass, as well as for having the property of binding the talc particles to the metallic walls of the container.

The following mixture has been found to give good results: A quantity of low grade talc finely ground is mixed with bentonite in a dry state. The mixture preferably contains 4% of bentonite, although this percentage of bentonite may vary within wide limits. As high as 8% may be used successfully; but the use of these higher percentages increases the cost of the mixture without materially increasing its efficiency. As low as

2% may be used, but a lower percentage of bentonite than this, in the mixture, is not satisfactory.

An equal quantity of water and of this mixture are mixed to a cream paste and the resulting mixture is applied in the usual manner with a spray gun, brush, swab or by washing the mixture around the inside of the drum and inverting the drum and permitting the coating to dry. The water in the mixture will slightly rust the metal, whereby the bond will more firmly secure the pulverulent material to the metal. The bond, when dry, will be more or less frangible, but will have sufficient strength for temporarily holding the coating intact until the asphalt in heated condition is run into the tins or containers. The pulverulet matter will adhere to the asphalt, will prevent the asphalt from coming in contact with the container walls, and will readily separate from the walls of the container.

Preferably, though not necessarily, the bentonite and talc or other powdered inorganic matter employed are first mixed in the dry state and then added to water. The amount of water may vary depending on the consistency of the mixture desired, but about equal parts of water and the dry mixture give good results.

I claim as my invention:

1. The process of coating the inner walls of a container for asphalt which consists in first mixing together a quantity of finely ground talc and bentonite, in the proportion of 90% to 98% of talc to 2% to 10% bentonite, mixing the mass with water while simultaneously agitating the mass, and then applying the mixture in a thin coat to the inner walls of the container.

2. A coating for asphalt containers capable of withstanding the action of hot melted asphalt, consisting of a powdered mineral substance, bentonite and water, said bentonite constituting not more than 10% or less than 2% of the combined powdered mineral matter and bentonite.

3. The process of coating the inner walls of a container for asphalt which consists in first mixing together a quantity of powdered mineral matter with 2% to 10% of bentonite, mixing the powdered mineral matter and bentonite with water and then applying the mixture in a thin coat to the inner walls of the container.

In testimony whereof I affix my signature.

PAUL S. DENNING.