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UNITED STATES PATENT OFFICE

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ANTISTICK COATING MATERIAL

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This invention relates to antistick material for coating sticky surfaces and particularly surfaces of asphalt, bitumen and like materials, and has for its object to provide a superior antistick coating material, which does not discolor on standing for material lengths of time, which does not peel off, which does not decompose readily and therefore can be made up in relatively large quantities and kept in stock, which is inexpensive and is more fire-resisting than antistick materials now in use and known to me.

To this end, the improved antistick coating is provided with a base composed of a salt or salts of alginic acid, with which is incorporated a material for reducing the surface tension of said base.

By employing an alginate as the base of the antistick material, an antistick material may be produced with certain alginates, which is soluble in water and remains soluble, whereas with certain other materials the soluble antistick material may be converted into an insoluble antistick.

The solution of alginate in water if applied to an asphaltic or like surface in a relatively thin film does not possess a sufficiently low surface tension to enable it to be used alone as it would gather in globules and leave portions of the asphalt uncovered, and therefore the solution of alginate has added to it a relatively small quantity of soap or other material capable of reducing the surface tension of the alginate so as to allow the asphalt surface to be wet with or covered by a thin film of the alginate, which, when dried, forms an effective antistick coating, which enables metal sheets, bars and like articles coated with asphalt to be packed together and shipped without sticking together.

A solution of alginate and soap or like tension reducer may be used alone, but it is preferred to employ therewith a small amount of glycerine or other material capable of imparting flexibility to the antistick coating and a small amount of glue or like material capable of imparting gloss to the antistick coating when dried on the asphaltic or like sticky surface.

An efficient antistick solution may be made with the following proportions, to wit:

	Per cent
Alginate	2
Soap	1
Glycerine	1
Glue	¼ of 1

The alginates used may be single salts, such as sodium, potassium or ammonium alginates, or double salts, such as copper ammonium alginate or zinc ammonium alginate.

The antistick material made with any of the above materials is soluble in water and when applied to an asphaltic or bituminous or like sticky surface wets and covers the same and when dried forms an effective and inexpensive antistick coating, which is soluble in water and can be washed off with water.

On the other hand, an antistick alginate coating which is wholly or partially insoluble in water may be obtained by treating the soluble antistick material with acid solutions or with solutions of salts capable of converting the soluble antistick into an insoluble antistick.

Calcium chloride, magnesium sulphate and the like may be used for this purpose.

The double salts of copper ammonium alginate or zinc ammonium alginate are initially soluble in water but when dried and heated as on exposure to the sun tend to become less soluble.

In United States Patent No. 1,327,933 granted to me January 13, 1920, is described a soluble antistick material employing a cellulosic base, and while such antistick is efficient for preventing asphaltic, bituminous, or like surfaces sticking together when shipped or packed, it possesses certain objec-

tionable characteristics, to wit: it decomposes rapidly which prevents its being made up in relatively large quantities and kept in stock. It discolors on standing and is liable to peel off when applied to the asphaltic or like sticky surface.

It is more expensive and having a cellulosic base is less resistant to fire.

The improved antistick having an alginate as its base does not have the objectionable characteristics mentioned.

What is claimed is:

1. An antistick coating material, comprising an alginate base, soap, glycerine, and glue substantially in the proportions specified.

2. An antistick coating material for sticky surfaces, comprising a metal alginate base initially soluble in water and having a relatively high surface tension in water solution, and a soap incorporated therewith for reducing the surface tension of the water-dissolved material for producing a non-sticky layer which adheres firmly to the sticky surface.

3. An antistick coating material for sticky surfaces, comprising a double metal alginate base initially soluble in water and having a relatively high surface tension in water solution, and a soap incorporated therewith for reducing the surface tension of the water-dissolved material for producing a non-sticky layer which adheres firmly to the sticky surface.

4. An antistick coating material for sticky surfaces, comprising as a base a double alginate of ammonium and a metal, which is initially soluble in water and has a relatively high surface tension in water solution, and a soap incorporated therewith for reducing the surface tension of the water-dissolved material for producing a non-sticky layer which adheres firmly to the sticky surface.

5. An antistick coating material for sticky surfaces, comprising a metal alginate base initially soluble in water and having a relatively high surface tension in water solution, a soap incorporated therewith for reducing the surface tension of the water-dissolved material for producing a non-sticky layer which adheres firmly to the sticky surface, and an agent reactive with the base for converting the alginate to insoluble form.

In testimony whereof, I have signed my name to this specification.

JAMES HOWARD YOUNG.