

UNITED STATES PATENT OFFICE.

JOSEPH SPECHT, OF MEMPHIS, TENNESSEE.

IMPROVEMENT IN COMPOSITIONS FOR COATING METAL PIPES, ROOFING, &c.

Specification forming part of Letters Patent No. 134,822, dated January 14, 1873.

To all whom it may concern:

Be it known that I, JOSEPH SPECHT, of Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Composition or Cement for Coating Pipes, Roofing, Coffins, &c., of which the following is a specification:

This invention relates to that class of compositions used to cover metal pipe for the prevention of oxidation, &c., and as a covering for the roofs of houses, walls, pavements, sidewalks, cars, and similar structures; and it consists in a tough, flexible, plastic mass formed by the union of coal-tar, gum-pitch, and pine-pitch, and unslaked lime with or without asphalt, say about in the proportions hereinafter specified. The object of this invention is the production of a composition which shall not be liable to run when exposed to the heat of the sun or to high temperature; sufficiently elastic or flexible to allow for expansion or contraction in the article to which it is applied; not liable to be affected by the warping of unseasoned roofing-planks, &c.; and not of that brittle nature which would cause it to crack and peel under pressure or concussion.

In making my compound I take the following ingredients in about the proportions specified: Coal-tar, one barrel; gum-pitch, one-fourth of a barrel; pine-pitch, ten pounds; unslaked lime or its equivalent, fifteen pounds; asphalt, ten pounds. These articles are intimately mixed by means of heat, and care should be had to keep the temperature even at all times during the mixing process. The lowest heat that will enable the operator to thoroughly mix the mass is the most desirable and will produce the best results. When I desire to use this compound as a roofing-cement I omit the asphalt, but form the compound in all other respects in the manner above set forth. The asphalt is introduced into such compounds as are to be in contact with earthy matter, viz., coffins, lining of cisterns and like receptacles, and also when I desire to coat metallic substances.

When formed the compound will resemble a thick paste or sirup, which, if used in the summer, may be employed without subjecting

to artificial heat, and may be spread, with a brush or other suitable means, upon the roof or other thing to be coated. After a short time the cement becomes leathery, or of a tough flexible nature, if exposed in layers to the action of the atmosphere. As before stated, in warm weather, while in bulk it will retain such a consistency as to be readily spread; but in cold weather it will require to be reheated before using.

Where it is desired to coat the inside of tubing a cord, wire, or rod, carrying a washer, is drawn through the pipe and the liquid poured in, which will follow the course of the washer, due to the vacuum created; while if the outside alone is to be coated, it can be best done by the use of a brush, as in painting.

In forming roofing the cement may be used either with or without felting or other fabric, when such are used; but upon metallic roofing the compound will be applied directly upon the same.

Such a composition being water-proof or water-repellent, and not itself acted upon by liquids of corrosive character, is admirably adapted for coating metallic pipes or tubing inside to prevent the contamination of liquids, and outside to prevent rusting or oxidation; and it is adapted for coating and lining cisterns, casks, coffins, and other receptacles designed to protect or preserve their contents; and makes a good and substantial coating for the roofs or side walls of buildings, or for coating sidewalks or pavements, where the object is to shed water or prevent dampness, thus preserving the same from the effects of the atmosphere and decay. The compound will also be admirably adapted for repairing damaged or leaky roofs, &c., the crevices or damaged portions being covered or filled with some suitable material, and the same coated with the compound, in the manner aforementioned.

The cement, when compounded and applied substantially as above set forth, will not only be found to be water-repellent, but will also prove itself perfectly fire-proof.

As the ingredients forming the compound are free from all noxious or deleterious substances, water collected upon the same and

conveyed to such cisterns, &c., will be found to be pure, clear, and free from all odor.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The compound of coal-tar, gum-pitch, pine-pitch, and unslaked lime, or their equivalent, in about the proportions and for the purpose specified.

2. The compound of coal-tar, gum-pitch,

pine-pitch, unslaked lime, or equivalents, combined with asphalt, in about the proportions and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

JOS. SPECHT.

Witnesses:

JAMES L. NORRIS,

WM. J. PEYTON,

STELLA SPECHT.