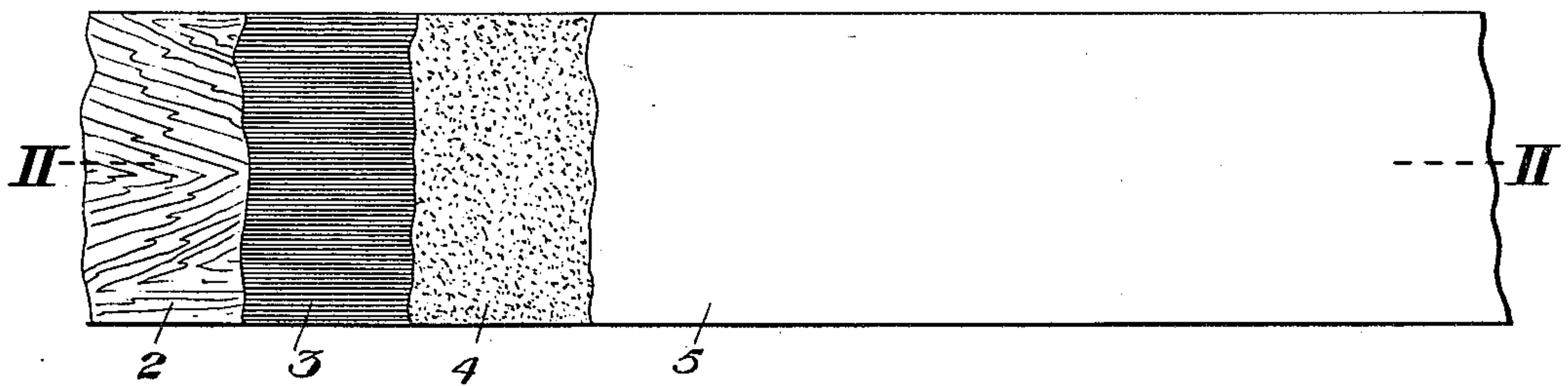


No. 825,870.

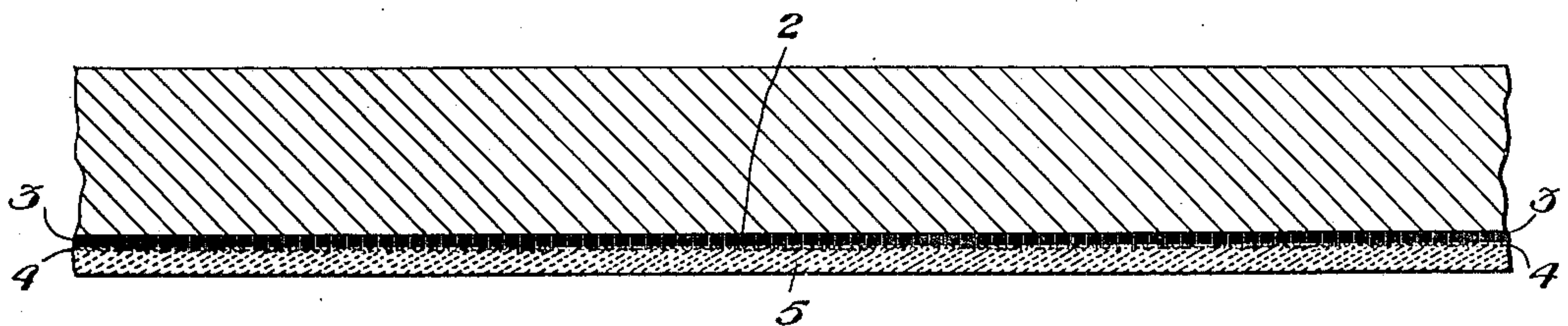
PATENTED JULY 10, 1906.

J. SCHIRRA.  
SURFACE COVERING.  
APPLICATION FILED MAR. 3, 1906.

*Fig. 1.*



*Fig. 2.*



*Witnesses:*

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his attorney.



# UNITED STATES PATENT OFFICE.

JULIUS SCHIRRA, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO FRANK LACKNER, TRUSTEE, OF PITTSBURG, PENNSYLVANIA.

## SURFACE COVERING.

No. 825,870.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed March 3, 1906. Serial No. 304,139.

*To all whom it may concern:*

Be it known that I, JULIUS SCHIRRA, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Surface Covering, of which the following is a specification, reference being had therein to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a face view of a surface provided with my improved covering or coating, portions of the successive layers being broken away to illustrate the process of application. Fig. 2 is a sectional view on the line II II of Fig. 1.

My invention relates to the art of applying an impervious lining or covering facing to the interior or exterior or both surfaces of boxes, vessels, or other inclosing structures or to surfaces of any kind wherever a hard waterproof coating or covering is desirable.

In carrying out my invention I first apply a preliminary coating of a suitable material which will adhere to the surface to be covered—as, for instance, wood—and which will serve as a primary base into which may be embedded a secondary holding-coating, upon which the final coating or covering may be laid, as hereinafter described. The several ingredients employed, as hereinafter described, are well adapted for these purposes and in practice have given good results.

The invention is particularly applicable to the covering of the surfaces, either interior or exterior, or both, of "rough boxes" for caskets, although it may be applied to any other purpose, as for the lining of refrigerators, wainscoting of bath-rooms, laundries, &c.

In carrying out my invention I first apply to the surface 2 of the wood or other material a primary layer of suitable holding material consisting of pitch and asphaltum or tar and asphaltum, which may be applied to the surface in melted form by a brush or mop or in any other suitable manner. The object in using the asphaltum with the tar or pitch is to provide a sufficient body to retain the next or secondary layer of rough holding material, which consists of fine gravel or sand or other suitable material 4, thickly sprinkled over the primary coating 3. The gravel or sand may be applied while the first coating is still in semiliquid or plastic form, but is prefer-

ably applied in a hot condition, so that it will become embedded in the tar and asphaltum mixture, being thereby rigidly set, so as to present a rough bonding or retaining surface having a firm engagement with the first layer or coating 3, which has become strongly incorporated with the pores or interstices of the wood or other surface. Upon this rough layer 4 I apply the final outside coating 5 in one or more layers in the same general manner as mortar is laid on by a trowel.

While various ingredients or materials may be used with more or less successful results, I prefer to use a mixture composed of a cement known as "Keene's" cement, white sand, marble-dust, pulverized oyster-shells, oxid of zinc, cream of tartar, and water.

The sand, cement, and water form a strong durable composition. The marble-dust and powdered oyster-shells, or either of them, give a smooth finished surface. The cream of tartar acts to keep the mixture somewhat soft and plastic during an appreciable period, thus facilitating ornamentation of the surface by imprinting or molding it in any suitable manner, while the oxid of zinc acts to finally harden and petrify the entire surface of the composition.

I have found that where it is desirable to secure a highly-finished exterior surface a first layer or coating of the Keene's cement, white sand, and water mixture may be laid upon the sand or gravel holding layer 4, upon which a final layer of the same material in considerably less proportion and with a greater proportion of the marble-dust or pulverized oyster-shells, or both, and the cream of tartar and the oxid of zinc, is then laid, securing the desirable exterior finish with sufficient thickness of the material and at the greatest economy of the ingredients.

It will be obvious that the surface-smoothing ingredients, marble-dust or oyster-shells, or both, are not necessarily employed throughout the entire mixture unless when comparatively thin. I do not, however, desire to be limited to any specific manner of application or proportion of ingredients.

Generally stated, the entire composition of which the coating or covering consists is composed of the ingredients named. These may be laid on in the manner stated within the judgment and skill of the operator, employing different proportions of each. For the



guidance of those unfamiliar with the art of mixing such ingredients good results may be secured by making the entire covering mixture of, say, three parts Keene's cement, one  
 5 or two parts white sand, according to the stiffness desired, the necessary quantity of water to thoroughly mix the ingredients and secure plasticity, say, one to two parts, while the marble-dust, powdered oyster-shells,  
 10 oxid of zinc, and cream of tartar may altogether comprise another part. As stated, these proportions may be varied from and the cement, sand, and water may be mixed with the marble-dust and oxid of zinc alone  
 15 when it is desired to provide a quick-hardening smooth surface or may be mixed with the marble-dust, powdered oyster-shells, and cream of tartar when it is desired to keep the surface soft for a sufficient time to permit of  
 20 decoration, molding, or other treatment of the surface while in a plastic condition and before hardening.

When it is desired, coloring-matter of any description—as, for instance, sand of various  
 25 colors, natural or artificial, or other suitable tinting ingredients—may be used, in which case the effect may be varied to suit the purpose by mixing the coloring-matter with the facing mixture in proper proportions, while  
 30 the surface may be decorated by impressions made in the cement before it is hardened by the use of suitable dies.

The facing may be used with good results upon the surface of brick, stone, iron, or steel  
 35 boxes or vaults, and the operation of applying it thereto is similar in all respects to the use with wooden boxes.

By the application of the facing the appearance of the surfaces of the box is softened and beautified, and a feature of great  
 40 value and advantage is that the covering, which conforms to the shape of the box throughout, forms an independent impervious case which will remain permanently  
 45 without being effected by the elements, thus effectually preventing access of water to the interior.

Having described my invention, what I claim is—

50 1. The process of coating surfaces, consisting in applying a preliminary coating of pitch or tar and asphaltum; then applying a layer of gravel or sand to said coating while hot; and then applying a finishing coating  
 55 consisting of Keene's cement, white sand, marble-dust, powdered oyster-shells, oxid of

zinc, cream of tartar and water substantially in the manner described.

2. A coating or covering composition consisting of Keene's cement, white sand, marble- 60 dust, powdered oyster-shells, oxid of zinc, cream of tartar and water, substantially in the proportions described.

3. A coating or covering composition consisting of Keene's cement, white sand, marble- 65 dust, oxid of zinc and water, substantially in the proportions set forth.

4. A coating or covering composition consisting of Keene's cement, white sand, marble- 70 dust, cream of tartar and water, substantially in the proportions set forth.

5. The herein-described covering or coating consisting of a preliminary layer of asphaltum and tar or pitch, a secondary holding layer of gravel or sand embedded therein, 75 and an outer layer composed of cement, sand, marble-dust, pulverized oyster-shells, cream of tartar, oxid of zinc and water, substantially in the proportions set forth.

6. The herein-described covering or coating 80 consisting of a preliminary layer of asphaltum and tar or pitch, a secondary holding layer of gravel or sand embedded therein, and an outer layer composed of cement, sand, marble-dust, cream of tartar and water, sub- 85 stantially as set forth.

7. The herein-described covering or coating consisting of a preliminary layer of asphaltum and tar or pitch, a secondary holding layer of gravel or sand embedded therein, 90 and an outer layer composed of cement, sand, pulverized oyster-shells, oxid of zinc and water, substantially as set forth.

8. The herein-described composition of matter consisting of three parts Keene's ce- 95 ment, one part white sand, two parts water, and one part consisting of marble-dust, powdered oyster-shells, oxid of zinc and cream of tartar.

9. A coating comprising an interior layer 100 of asphaltum and tar, an intermediate layer of gravel, and an outer layer consisting of cement, sand, water, marble-dust, powdered oyster-shells, oxid of zinc and cream of tar- 105 tar.

In testimony whereof I affix my signature in presence of two witnesses.

JULIUS SCHIRRA.

Witnesses:

C. M. CLARKE,  
 F. W. H. CLAY.