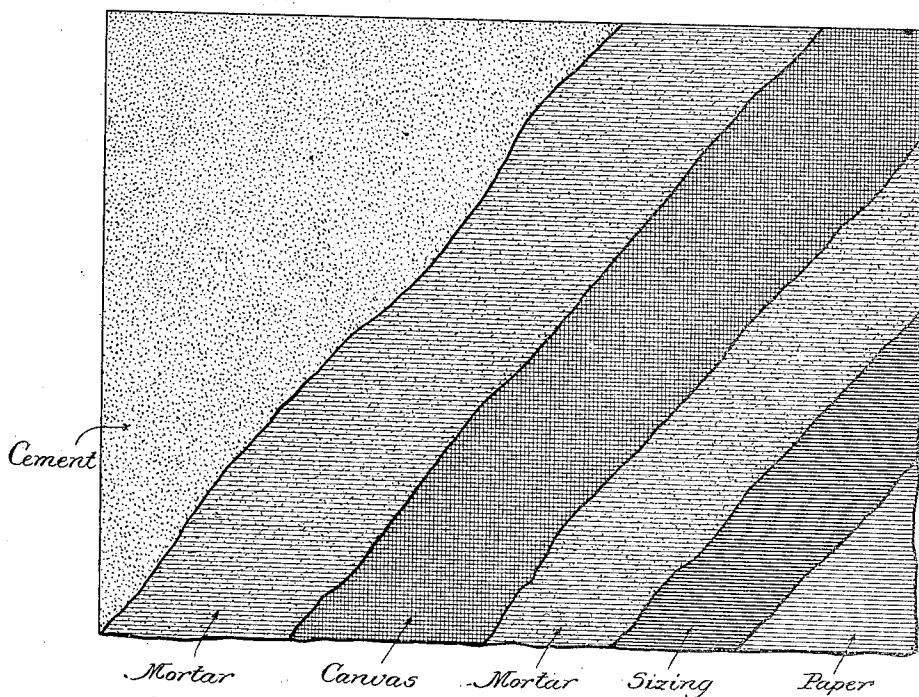


No. 879,372.

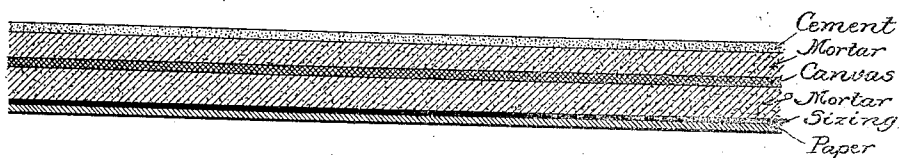
PATENTED FEB. 18, 1908.

C. C. DILL.  
ROOF COVERING.  
APPLICATION FILED APR. 30, 1907.

*Fig. 1.*



*Fig. 2.*



Witnesses.  
*Edw. C. Gaylord.*  
*John Enders.*

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# UNITED STATES PATENT OFFICE.

CLAY C. DILL, OF DENVER, COLORADO.

## ROOF-COVERING.

No. 879,372.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed April 30, 1907. Serial No. 371,174.

*To all whom it may concern:*

Be it known that I, CLAY C. DILL, a citizen of the United States, residing in the city and county of Denver, State of Colorado, have invented certain new and useful Improvements in Roof-Coverings, of which the following is a specification.

The object of my invention is to provide a durable and effective water-proof covering adapted for railway and street cars and all movable structures, such as steamboat decks, cab roofs, etc. It will be found, however, that the invention is also adapted for general use upon all structures requiring water-proof protection.

In the drawings—Figure 1 is a diagrammatic plan view of part of a roof covering constructed in accordance with my invention, certain parts thereof being torn away to better exhibit the construction. Fig. 2 is a diagrammatic section of a roof covering constructed in accordance with my invention, the thickness of the layers being in some instances exaggerated in order to render the construction clear.

In constructing a roof covering according to my invention I first apply to the roof structure a layer of paper, preferably a wood fiber paper, thoroughly filled with any substance which will prevent the paper from absorbing oil or being otherwise acted upon by it. The paper may be attached to the surface to be covered by tacks or any other suitable means, and the oil proof properties may be imparted thereto by sizing consisting of some ordinary glue.

I consider it within the scope of my invention to use any sizing for the paper which will impart the desired properties thereto, and to use any paper which may be suitable for the purpose. The sizing which is applied to the paper not only serves the purpose of rendering it impervious to the oil contained in the composition described below, but also serves to fasten the lapped joints of the paper.

Upon the sized paper above described I apply a composition formed of oil and some suitable mineral substance. In practice I have found the desired result is obtained by the use of raw linseed oil and red oxid of

iron  $\text{Fe}_2\text{O}_3$ , chemically known as sesquioxid of iron, mixed to the consistency of thin mortar in about the proportion of one gallon of oil to twenty-five pounds of oxid. This plastic composition or mortar may be applied with a trowel or other spreader to the thickness of one-sixteenth to one-eighth of an inch.

Over the composition of oil and mineral, while still soft, canvas or other cloth is stretched and tacked at the sides and ends or otherwise fastened to hold it in place. The canvas or other cloth used may be of any weight desired and will vary according to the location of the surface to which the water-proofing is applied. Above the cloth I apply another layer of plastic composition consisting of oil and some mineral substance. I have found that the same ingredients described in connection with the plastic composition above referred to are satisfactory, but the mixture should preferably be of the consistency of stiff mortar, the proper proportions being about one gallon of boiled linseed or other oil to thirty pounds of sesquioxid of iron or other suitable mineral substance. This composition should be applied with a trowel or other spreader to the thickness of about one thirty-second to one sixteenth of an inch.

The roofing is completed by sprinkling and brushing in upon the last mentioned layer of plastic composition dry Portland cement, or other substance, which will quickly harden.

The roofing above described possesses the desirable property of being light and somewhat flexible, by reason of the oil forming part thereof, and this flexibility is preserved by reason of the fact that the oil is protected both above and below against absorption or evaporation. I have found in practice that roofs constructed in accordance with my invention will retain their flexibility for many years.

I claim:

1. A roof covering comprising a layer of oil proof paper, a layer of mortar formed of oil and a mineral substance, and a layer of cloth covered by an impervious material.
2. A roof covering comprising a layer of fibrous material treated with sizing to render

it impervious to oil, a layer of oil mixed with a mineral, a layer of cloth, a second layer of oil and mineral, and a layer of cement.

3. A roof covering comprising a layer of paper coated with glue, a layer of mortar containing oil and sesqui-oxid of iron, a layer of canvas, a second layer of oil and sesqui-oxid

of iron, and a layer formed of cement sprinkled upon the last mentioned layer.

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Witnesses:

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