

## UNITED STATES PATENT OFFICE

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NON-BLISTERING ROOFING AND METHOD  
OF PREPARING SAMECharles J. Merriam, Winnetka, Ill., assignor to  
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14 Claims. (Cl. 91—70)

This invention relates to non-blistering asphalt roofing and a method of preparing the same.

Asphalt roofing commonly consists of a felt base saturated with asphalt, a layer of air-blown asphalt upon the felt, and usually crushed rock particles as a coating material. One of the difficulties met with in the use of such asphalt roofing is what is known as "blistering", which occurs particularly on sunny days following wet weather. The blisters are in the form of small eruptions which may be very thick, and disfigure the roofing. They are especially objectionable on roofing which is coated with crushed rock particles, since the color effect may be completely spoiled by the black asphaltic eruptions. The blisters appear to originate at the inter-face of the felt and the asphalt, and they are apparently formed by bubbles of combined water and oil vapors which form at the felt-asphalt inter-face and increase in size until they break.

It has now been discovered that the blistering tendency may be largely or completely overcome by dusting the felt with a dust or fine powder which inhibits the formation of large bubbles on the felt. A water-repellent such as a water-insoluble stearate, for example such as zinc or calcium stearate, is preferred. It has been discovered, however, that other inert powders such as powdered mica or talc will likewise prevent the blistering.

In carrying out the invention the saturated felt is dusted with the powder, and the air-blown asphalt layer then spread over the powder. Crushed rock may be applied if desired.

Roofing treated under this process does not blister under the most rigid tests provided by the roofing manufacturers, even when used in connection with rock particles which are known to increase the blistering tendency.

The function of the powder is not thoroughly understood, although it is believed that it counteracts a tendency of water to evaporate from the points of the felt fibres, either by keeping the tips free from water, or by providing a greater number of small nuclei for evaporation.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art

What I claim as new and desire to secure by Letters Patent is:

1. The method of preventing blistering in roofing comprising an asphalt-saturated felt base and an air-blown asphalt coating thereon which comprises dusting the felt with an inert powder before applying the air-blown asphalt coating thereto.

2. The method of preventing blistering in roofing comprising an asphalt-saturated felt base and an air-blown asphalt coating thereon which comprises dusting the felt with a water-insoluble stearate before applying the air-blown asphalt coating thereto.

3. The method as set forth in claim 2, in which the stearate is zinc stearate.

4. The method as set forth in claim 1, in which the powder is talc.

5. The method as set forth in claim 1, in which the powder is mica.

6. Roofing comprising an asphalt-saturated felt base, an inert powder coating upon said base, and an air-blown asphalt coating thereon.

7. Roofing as set forth in claim 6, in which the powder is a water-insoluble stearate.

8. Roofing as set forth in claim 6, in which the powder is a zinc stearate.

9. Roofing as set forth in claim 6, in which the powder is a powdered mica.

10. Roofing as set forth in claim 6, in which the powder is talc.

11. Roofing comprising an asphalt-saturated felt base, an inert powder coating upon said base, an air-blown asphalt coating thereon and a layer of crushed rock particles upon said asphalt.

12. The method of preventing blistering in roofing comprising an asphalt-saturated felt base and an air-blown asphalt coating thereon which comprises dusting the felt with a water-repellent powder before applying the air-blown asphalt coating.

13. Roofing comprising an asphalt-saturated felt base, water-repellent powder coating upon said base, and an air-blown asphalt coating thereon.

14. Roofing comprising an asphalt saturated base and a water-repellent powder coating upon said base, and an air-blown asphalt coating thereon, and a layer of crushed rock particles upon said asphalt.

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