

# UNITED STATES PATENT OFFICE.

ROBT. SKINNER, GEO. DUNCAN, AND CESARE MERIGHI, OF SAN FRANCISCO,  
CALIFORNIA.

## IMPROVED METHOD OF PREPARING MASTIC ROOFING.

Specification forming part of Letters Patent No. **50,177**, dated September 26, 1865; antedated  
September 22, 1865.

*To all whom it may concern:*

Be it known that we, ROBERT SKINNER, GEORGE DUNCAN, and CESARE MERIGHI, all of the city and county of San Francisco, State of California, have discovered a new and Improved Method for Preparing Mastic Roofing; and we do hereby declare that the within is a full and exact description of the process for preparing and applying the same.

The nature of our discovery consists in providing an improved material for roofing for buildings, which, by reason of its component parts, is rendered impervious to heat or cold, and is not affected by the direct rays of the sun or radiated heat from fire.

To enable others skilled in the art to make use of our discovery, we will proceed to describe the process for preparing and the applying the same to buildings.

For preparing the roofing we use a kettle or tank of convenient size, in the bottom of which we place a roller for the purpose of drawing the canvas which is to be used through the composition, so as to prevent it from rising to the top.

The preparation of the composition is in the following proportions: To one gallon of coal-tar, well boiled—say one hour—we add one pound of brimstone and two pounds of stone lime, well pulverized; or we take one gallon of coal-tar and add one pound of brimstone, leaving out the lime. (We think the latter preparation preferable.) After the whole is well mixed we take burlaps or cloth and draw it through the composition once by means of a windlass. From thence it is placed under a roller or gage fixed upon the end of a table. This gage is for the purpose of rolling or smoothing the rough and uneven places in the cloth as it comes from the kettle, and to give a uniform appearance to it.

The table is constructed the length desired upon which to draw out the saturated canvas. For the purpose of preventing the saturated canvas from adhering to the table while hot, we use pulverized tale, which is sprinkled over the table. When the desired length is obtained the canvas is cut and laid aside, and pulverized tale should be freely sprinkled between each layer, to prevent adhering during

the process of cooling; yet the hardening of this composition is very rapid.

All joints and knots should be well covered with American felt or cloth before applying the prepared canvas to the roof. Commencing at the eaves of the building we place a strip of our cloth (prepared) from one end to the other, in the same manner as when shingling, but not projecting over the eaves as when shingling buildings. Both edges of the first layer are to be tacked to the roof, yet only the upper edges of the subsequent layers are to be tacked. The object of this is for the purpose of preventing the prepared cloth from tearing should the roof shrink or swell. The edges of the layers are now to be cemented with the same composition as the cloth is saturated with, and the whole roof is to be daubed or painted with the same; but before this is performed a little more brimstone should be added—say from one-fourth to one-half pound to the gallon—which hardens the compound still more, rendering it more impervious to the rays of the sun.

Gravel can be applied, if thought to be necessary; but in ordinary cases with this composition it is not considered necessary.

We do not confine ourselves to the exact proportions of brimstone—*i. e.*, being in the proportion of one to two. The climate should be taken into consideration, as where it is very hot more brimstone should be added, as this is the ingredient used for hardening.

Having thus described our discovery, we do not claim coal-tar or asphaltum as our improvement; but

What we do claim as our discovery, and desire to secure by Letters Patent, is—

The described composition of coal-tar in combination with brimstone, mixed together in the manner and about in the proportion described, and applied to the canvas and roof, substantially as and for the purpose set forth.

ROBERT SKINNER.  
GEORGE DUNCAN.  
C. MERIGHI.

Witnesses:

C. W. M. SMITH,  
W. B. EWER.