## UNITED STATES PATENT OFFICE.

GEORGE DUNCAN, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVED ROOFING COMPOUND.

Specification forming part of Letters Patent No. 53,281, dated March 20, 1866.

To all whom it may concern:

Be it known that I, GEORGE DUNCAN, of the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Mastic Roofing; and I do hereby declare that the following is a full, clear, and exact description of the manner of preparing and constructing the same.

For carrying the first part of my invention into effect I make a mixture of one barrel of gas-tar and three hundred pounds of asphaltum with twenty pounds of coke-dust, to which is added one gallon of bituminous-coal oil, the whole to be well mixed by boiling together for one hour, more or less. I then take common burlaps and pass it through the above-described mixture and over a table which is covered with fine sand. At the extreme ends of this table are placed rollers and a gage. Through the saturated burlaps passes fine coke dust, being sifted upon the burlaps as it enters the rollers or gage, which presses the coke-dust into it and gives to the saturated burlaps a firm and smooth appearance, as well as preventing it from running. It is then ready to be laid upon the roof, which is accomplished by nailing it down in the usual way, the joints in the roof having first been covered with felt or paper, as is the custom.

For carrying the second part of my invention into effect it becomes necessary that a suitable covering should be placed upon the prepared burlaps after it has been laid upon roof. For this purpose I take one-fourth part of gas-tar and three-fourths residue bituminous-coal-oil, well boiled together, and when in a heated state it is spread upon the saturated burlaps above described. Care should be taken to have the whole surface well covered. Finally, a covering of coarse sand is to be spread upon the whole.

By this method a cheap and durable roof is obtained without the liability of accident by fire, as when brimstone or other combustible substances are used.

What I claim, and desire to secure by Letters Patent, is—

The preparing the burlaps with the tarry and bituminous composition and covering the same with bituminous compounds, in the manner and for the purpose set forth.

In witness whereof I have hereunto set my hand and seal this 13th day of October, A. D. 1865.

GEORGE DUNCAN. [L. s.]

Witnesses: C. W. M. SMITH, H. S. HOMANS.