

UNITED STATES PATENT OFFICE.

LEWIS PEIRCE, OF SALEM, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS
RIGHT TO CHARLES A. FARNAM, OF SAME PLACE.

IMPROVEMENT IN PLASTIC ROOFINGS.

Specification forming part of Letters Patent No. **179,131**, dated June 27, 1876; application filed
May 4, 1876.

To all whom it may concern:

Be it known that I, LEWIS PEIRCE, of Salem, in the county of Essex and State of Massachusetts, have invented certain Improvements in Roofing, of which the following is a specification:

The object of my invention is to produce a durable and slightly elastic compound, adapted for saturating fibrous material to be used in covering roofs.

To accomplish this result I make use of the following materials, in about the proportions named: Of pine-tar, two hundred and fifty pounds; pitch, five hundred pounds; rosin, seventy-five pounds; tallow, ten pounds.

I melt the pitch in a suitable vessel, and having warmed the tar I add it to the pitch slowly until they are thoroughly mixed. While heated I add eight quarts of pulverized charcoal, four quarts of pulverized plaster-of-paris, and four quarts of finely-sifted coal-ashes. I add the tallow before putting in the charcoal and other materials.

With this compound I saturate cloth or other fibrous material, and immediately after saturating it, while it is still hot, I cover the cloth with finely-powdered steatite. With this prepared cloth I cover the roof, using two layers of the cloth, the seams of the cloth crossing each other in the two layers. After the cloth is laid and secured on the roof, I

spread over it a compound formed as follows: I take of coal-tar forty gallons and boil it six hours. To this I add ten gallons of the compound previously described, eight quarts of charcoal, four quarts of plaster-of-paris, and four quarts of coal-ashes in fine powder.

These proportions may be varied slightly, according to the condition of the tar. If it contains a larger or smaller proportion of volatile matter, the boiling must be continued a longer or shorter time, until most of the lighter hydrocarbons are expelled.

I have discovered, by careful trial and experiment, that the use of the tallow as an agent to temper and soften the other ingredients in the compound is superior to any other agent; and in combination with the other materials named, I have produced a roofing which successfully resists great variations of temperature, neither running in hot weather, and being sufficiently elastic to avoid cracking in cold weather.

I claim as my invention—

The roofing composed of the materials specified, combined and applied substantially as set forth.

LEWIS PEIRCE.

Witnesses:

J. A. BASSETT,
J. R. NICHOLS.