

# UNITED STATES PATENT OFFICE.

EDWARD CHURCHILL, OF ST. THOMAS, CANADA.

## IMPROVEMENT IN COMPOSITION ROOFS.

Specification forming part of Letters Patent No. **156,537**, dated November 3, 1874; application filed October 21, 1874.

*To all whom it may concern:*

Be it known that I, EDWARD CHURCHILL, of the town of St. Thomas, in the county of Elgin and Dominion of Canada, have invented an Improvement in Composition Roofs, of which the following is a specification:

The nature of this invention relates to certain improvements in composition roofs; and its object is to secure a more durable and better roof, and one that is more fire-proof than those in ordinary use.

Any roofing paper or felt may be laid on the roof in any of the ordinary ways. Preferably I should use such paper or felt saturated with coal or gas tar and paraffine, instead of tar alone, as is usual. Then I coat this felt or paper with a gum composed of coal or gas tar and paraffine, applied hot. Then I cover the whole with coarse canvas, secured in any convenient way, upon the top of which I spread another coat of the aforesaid gum. Before this last coat cools, I spread upon it a cement, until the gum refuses to absorb any more.

This cement is composed of the following ingredients, and about the following proportions: One quart of water-lime, one quart of slaked white lime, one pint of salt, and one pound of pulverized mica, all thoroughly mixed in one-half bushel of clean sand.

After this cement has hardened in the gum,

I give the whole a coating of the following compound, applied with a brush: One pound of water-lime, three pounds of unslaked white lime, two ounces of salt, two ounces of pulverized mica, and one pound of pulverized potash, the whole boiled in water, and made about the consistency of whitewash when applied for outside work.

A roof put on in the above-described way and of the above-named materials will prove lasting, and will withstand a fire that would utterly destroy a tin, zinc, or sheet-iron roof, and such roof is a reflector and non-conductor of heat.

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

1. The cement composed of water-lime, slaked lime, salt, mica, and sand, substantially in the proportions and for the purpose above named.

2. The finishing coating composed of water-lime, unslaked lime, salt, mica, potash, and water, substantially in the proportions and for the purpose above specified.

EDWARD CHURCHILL.

Witnesses:

THOS. S. SPRAGUE,  
H. S. SPRAGUE,  
CHAS. E. HUESTIS.