A. A. SMITH.

ROOF.

APPLICATION FILED MAY 5, 1910.

986,514. Patented Mar. 14, 1911.

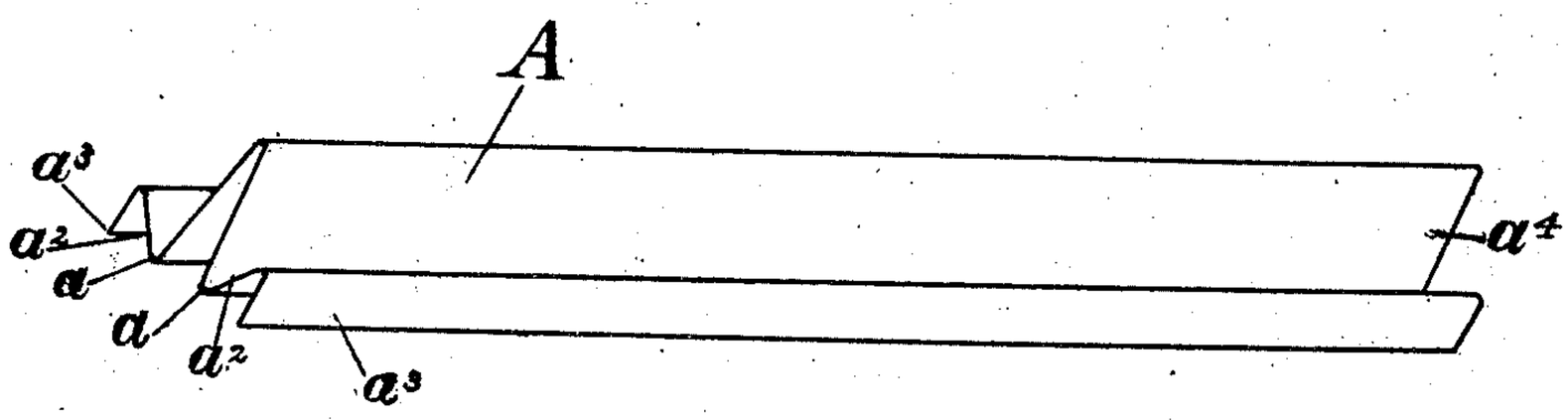

Fig. 1.

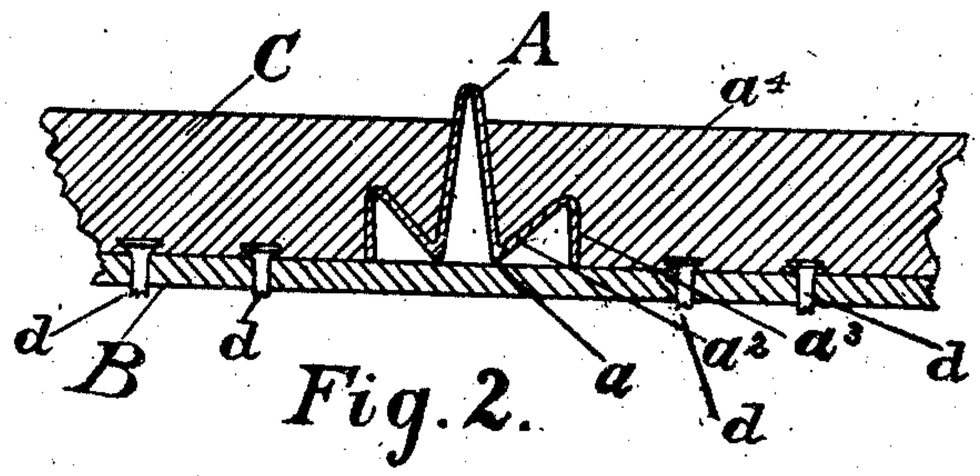

Fig. 2.

WITNESSES:

Thomas P. Lyell

Edw^d. Higginson

Albert A. Smith INVENTOR

BY James N. Morton ATTORNEY

UNITED STATES PATENT OFFICE.

ALBERT A. SMITH, OF FALL RIVER, MASSACHUSETTS.

ROOF.

986,514. Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed May 5, 1910. Serial No. 559,524.

To all whom it may concern:

Be it known that I, ALBERT A. SMITH, of Fall River, in the county of Bristol and Commonwealth of Massachusetts, have invented an Improvement in Roofs, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a new construction for making roofs water tight, and is applicable both to new roofs and to recovering old roofs.

The desirability of applying roofing material in a plastic condition has long been recognized, but has heretofore been impracticable on account of the tendency of roofs so constructed to crack under the influences of heat and cold. In my improved roof, the expansion and contraction of the roofing material are taken up by expansion strips of peculiar shape which project entirely through the plastic material.

In the annexed drawings Figure 1 is an isometric view of my improved expansion strip; Fig. 2 is a section of my improved roof.

The expansion strip A is of new and peculiar shape. It consists of three parallel folds, the central one of which A is much higher than either of the others. The side folds a^2 serve to lock the roofing material to the expansion strip; the down turned edges a^3, a^3, which are cut even with the folds a, a, serve as additional legs to support the strip firmly. The folds a, a act as gutters to intercept and carry off any water which may penetrate between the expansion strip and the roofing material. Said expansion strips A are placed up and down across, or slanting on the boarding of the roof B in the direction of the slant at suitable distances apart, and are retained by suitable means without however puncturing the lower folds a, a. By means of these strips the roof is divided into strips or blocks, each strip or block being separated from its neighbor by an extension strip. The roof boards may then be studded with nails d, the heads of which are left slightly above the boards B; this however is not absolutely necessary. The nails serve to retain the plastic material in close engagement with the roof, and to counteract any tendency on its part to warp or spring away therefrom.

The plastic material C is applied to a thickness sufficient to cover entirely the folds a^2, a^3, but not sufficient to cover the central fold A, (which preferably projects through the plastic material), and is finished with a smooth surface. Said plastic material may consist of any kind of cement, mortar or material which hardens so as to resist the action of water and sunlight. The expansion strips A, being placed at frequent intervals in the roof, serve to take up any expansion or contraction in the roofing material and to prevent it from cracking.

Having thus described my invention, I claim:

1. A roof consisting of a plastic material separated at intervals by expansion strips, said strips having a central fold, and on each side thereof a lower fold adapted to serve as a lock-fold for the plastic material, and also to serve as a gutter to intercept water.

2. A roof consisting of a foundation, expansion strips laid thereon, said strips having a central fold, and at the base on each side thereof, lower parallel folds, and a plastic material applied on said foundation and filling the spaces between the central folds of said expansion strips.

3. An expansion strip consisting of a high central fold shaped like an inverted V, and integral therewith on each side thereof and parallel thereto, lower up-turned lock-folds.

ALBERT A. SMITH.

Witnesses:
ANDREW J. JENNINGS,
FLORENCE R. ANGELL.