

R. Norwood.
Composition Roof.

N^o 55,891.

Patented Jun. 26, 1866.

Fig. 1.

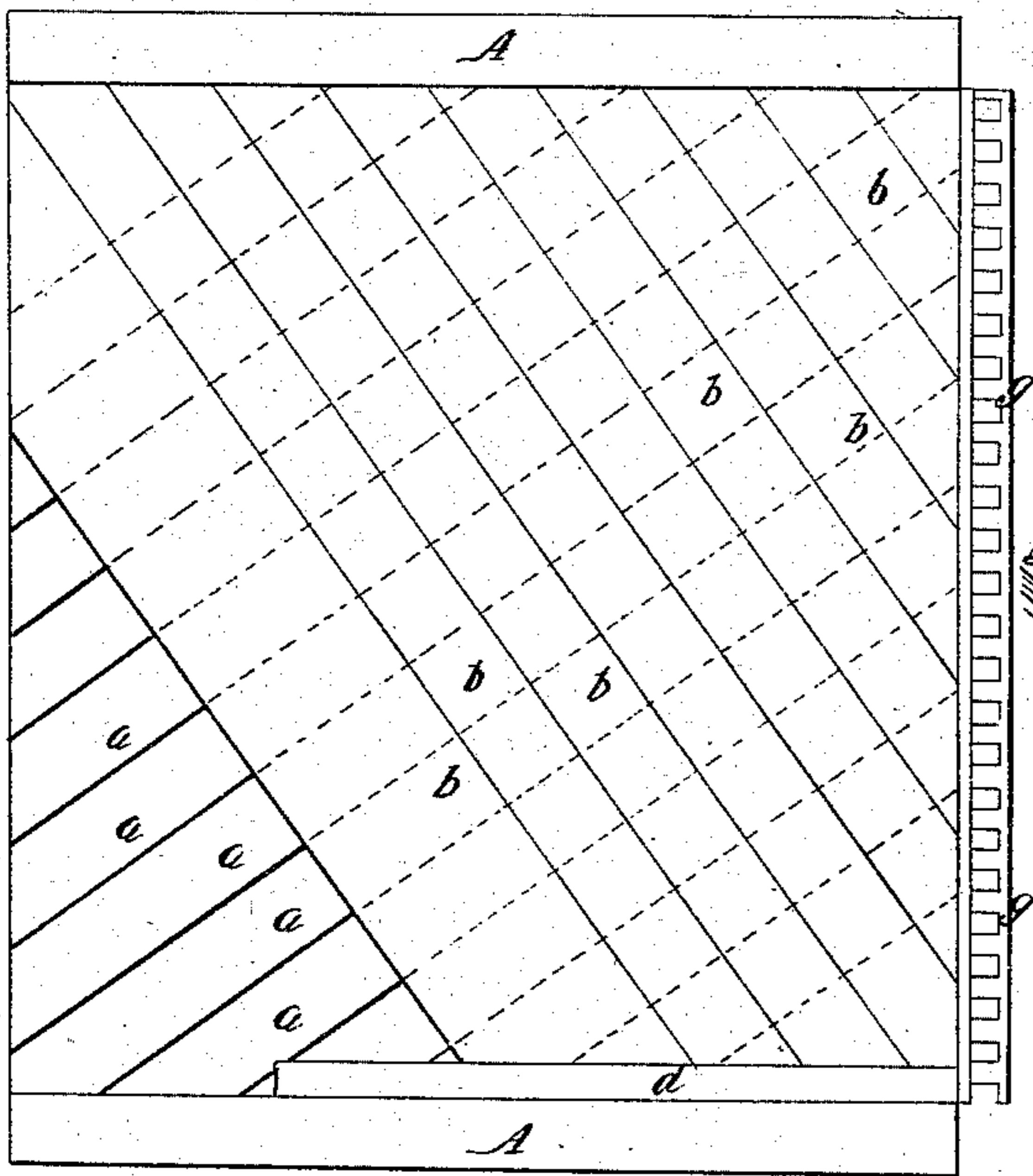


Fig. 2.

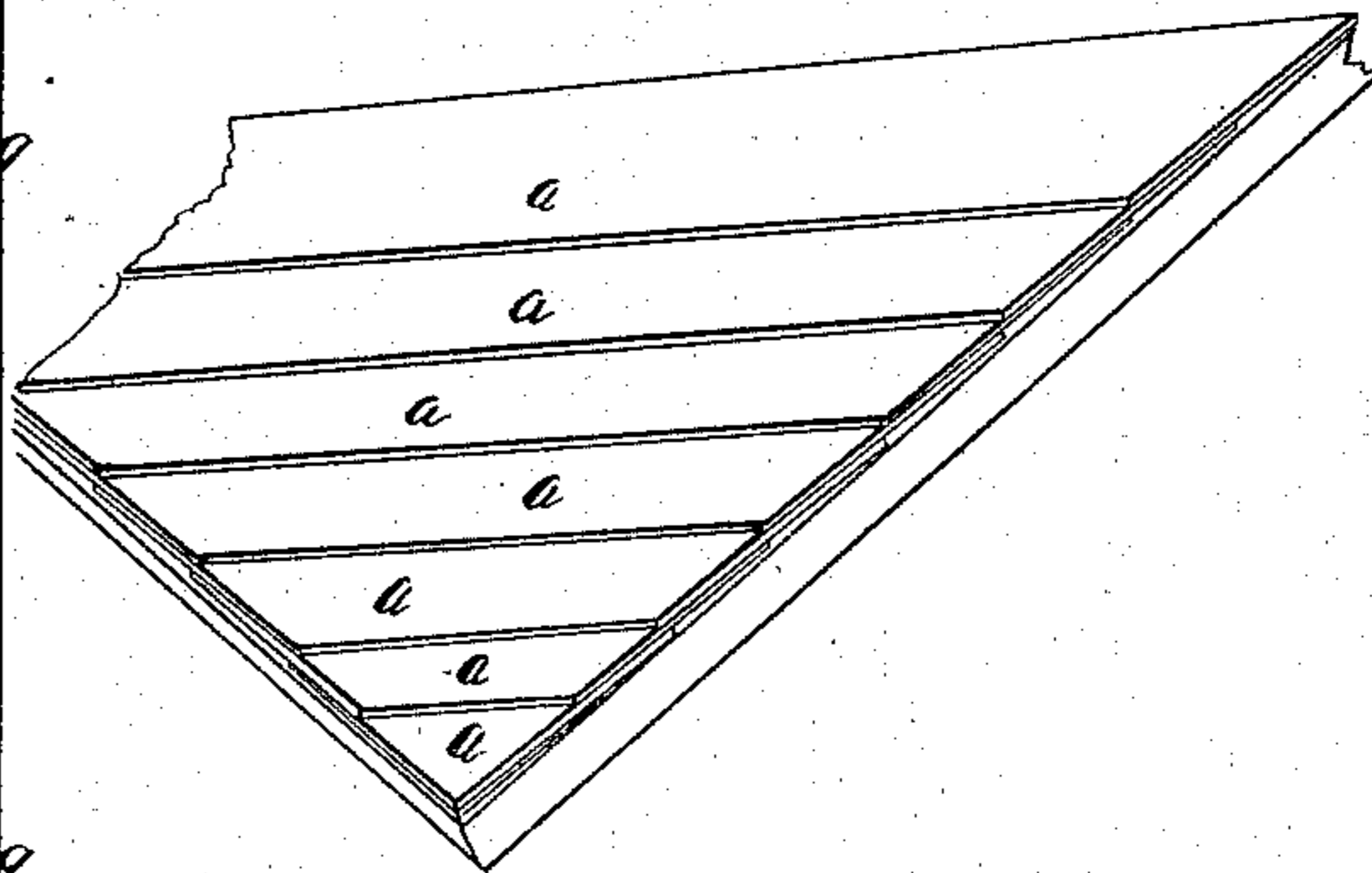


Fig. 3.

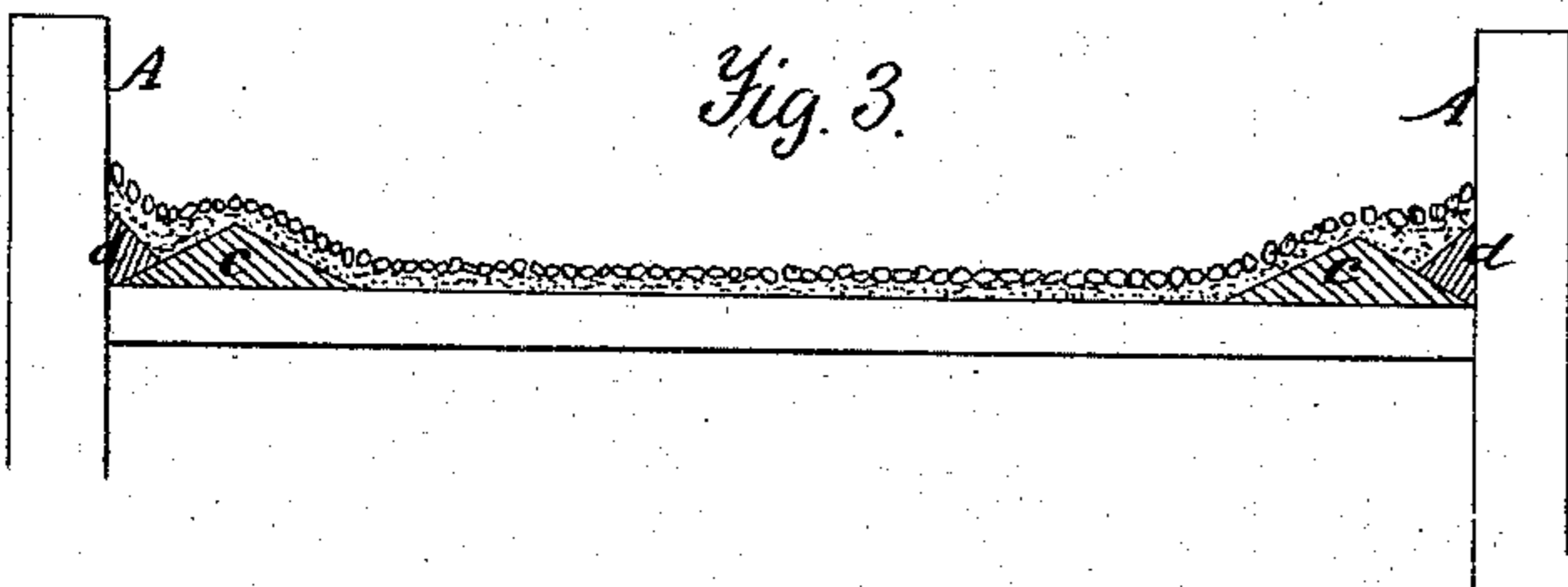
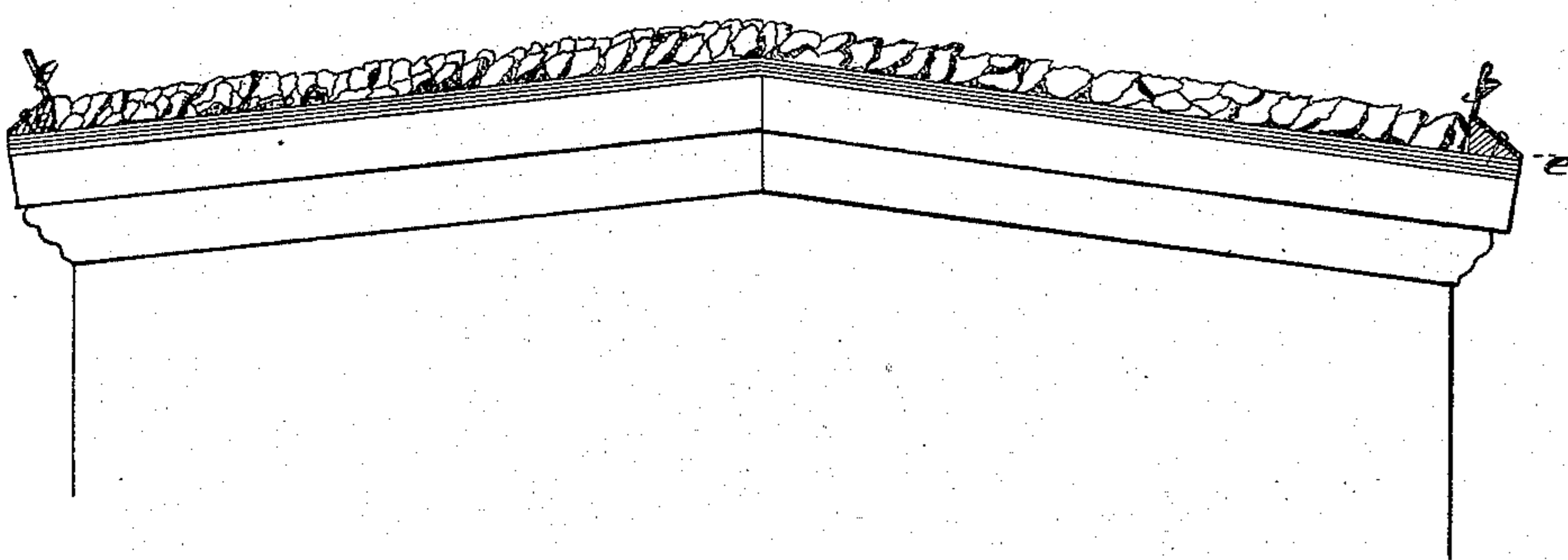


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

RUFUS NORWOOD, OF BALTIMORE, MARYLAND.

IMPROVED ROOFING.

Specification forming part of Letters Patent No. 55,891, dated June 26, 1866.

To all whom it may concern:

Be it known that I, RUFUS NORWOOD, of the city and county of Baltimore, and State of Maryland, have invented a new and Improved Roofing; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of a roof with fire-walls, showing the manner of applying the strips of felt to the roof preparatory to covering it with gravel. Fig. 2 is a perspective view of one layer of strips arranged diagonally upon a roof. Fig. 3 is a vertical section of a roof between fire-walls, showing the method of keeping the cement in contact with these walls. Fig. 4 is an elevation of a roof having felt and gravel applied to it, with screens to prevent the escape of the gravel from the eaves.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain novel improvements in covering the roofs of buildings with felt and gravel and a suitable cement for making the parts adhere and to render the whole water-proof.

The nature of my invention consists in applying the felt or cloth covering upon the roof in diagonal overlapping layers, so as to have a uniform thickness of four (or more or less) layers, which are arranged so as to afford the greatest strength and durability against the effects of the weather, as will be hereinafter described.

It also consists in a mode of preventing the cement and gravel covering of the felt from parting from or leaving the joints of walls, chimneys, or other objects projecting through or above the roofs, thus effectually sealing such joints and preventing the entrance of water thereat, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

The felt or cloth, of a suitable description for the purpose intended, is applied to a roof in diagonal overlapping layers by commencing at one corner of the eaves, as shown in Fig. 2, and laying down the strips *a a a* so that there shall be two even thicknesses of the cloth over the entire roof. I then put upon the surface

of the first layer a coating of cement, which may be composed principally of asphaltum. I now commence at the opposite corner of the eaves, and lay down another diagonal layer, *b*, of felt or cloth, precisely as I have described for the first layer. This second layer is composed of narrow overlapping strips, which cross the edges of the first layer of strips, as shown in Fig. 1, and attach themselves to the interposed coating of cement, so as to prevent the two layers from separating and the upper layer from becoming torn. By thus applying the strips *a* and *b* to a roof in counter-diagonal positions one layer will have the effect of tying together and strengthening the strips composing the other layer, and the two layers will have nearly, if not quite, the strength and substantialness of one solid sheet of an equal thickness; and while this is the case the two layers will present a level surface of a uniform thickness.

The cement which I interpose between the two layers of felt or cloth will not only serve to increase the solidity of the covering and prevent a separation of the strips *a* and *b*, but it will effectually render this covering impervious to water.

Previously to applying the felt strips to a roof having fire-walls *A A*, chimneys, or other objects projecting above it, I apply what I term "reveal" strips *c c* at the joints or junction of the roof with such projecting objects, as shown in Fig. 3. The strips *c c* form ridges having their surfaces inclined toward and from the fire-walls *A A*, and these ridges leave gutters or depressions between them and the said walls for preventing the cement which is in these gutters from leaving the walls. When the felt is applied to the roof it is carried over said ridges and secured down at the junction of the walls with the roof by means of angular strips *d d*, which are covered with cement and gravel.

By always keeping the cement in close contact with the walls *A A*, by means above stated, and shown in Fig. 3, water will be prevented from entering at such points.

Under the old mode of securing the edges of the felt down at the junction of the roof with fire-walls, chimneys, dormer-windows, narrow strips of wood are used, which have the effect of causing the cement covering and

the gravel to part from such objects, and thus to leave exposed openings for the entrance of water.

By my arrangement of a reveal or wall board a valley is formed, inclining toward the wall or other projecting object, for retaining the cement and gravel.

To the strips *ee*, which are used for securing down the edges of the felt along the eaves of a roof, I apply perforated strips *gg*, which will allow the water to escape freely through them, but prevent the gravel which may have washed loose from the cement covering from passing over into the gutters. These strips *gg* will prevent the breaking down or sagging of gutters, by preventing anything washing into them from the roof, and they present a very neat appearance when applied to roofs.

I do not desire to confine my invention to the use of two layers of felt, making four thicknesses of this material, as a greater number or a less number of layers and thicknesses may be applied to a roof upon the principle herein described.

The invention, in part, consists in the novel disposition of the strips of felt, cloth, or other suitable material, and any suitable number of layers may be used, according to the strength required.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A roof which is in part composed of several overlapping strips of felt or its equivalent applied in counter-diagonal positions, substantially as described.

2. The combination of the reveal-strips *cc* and strips *d* with the felting, as described, so that gutters or channels at the junction of the roof with the fire-wall can be formed, preventing thereby the cement covering from being detached from the roof and wall, substantially as described.

RUFUS NORWOOD.

Witnesses:

W. H. HAYWARD,
L. R. WOOLLEN.

