

(No Model.)

J. F. HOFFMAN.  
COMPOSITION ROOF.

No. 285,131.

Patented Sept. 18, 1883.

FIG. 1.

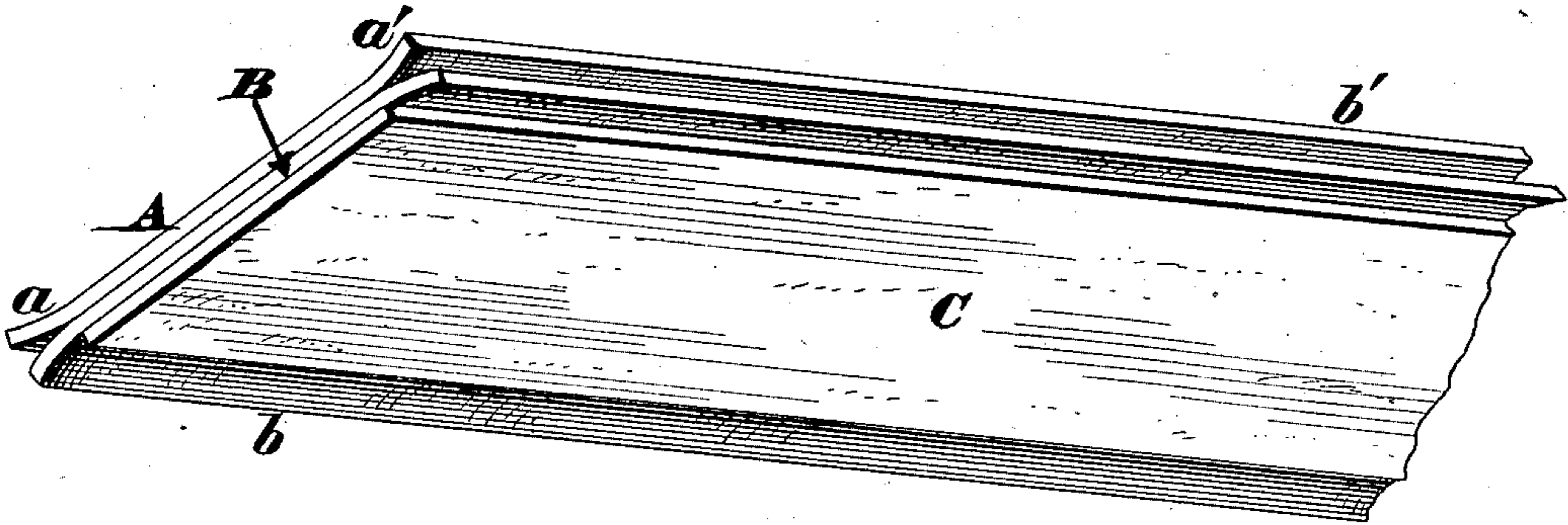


FIG. 2.

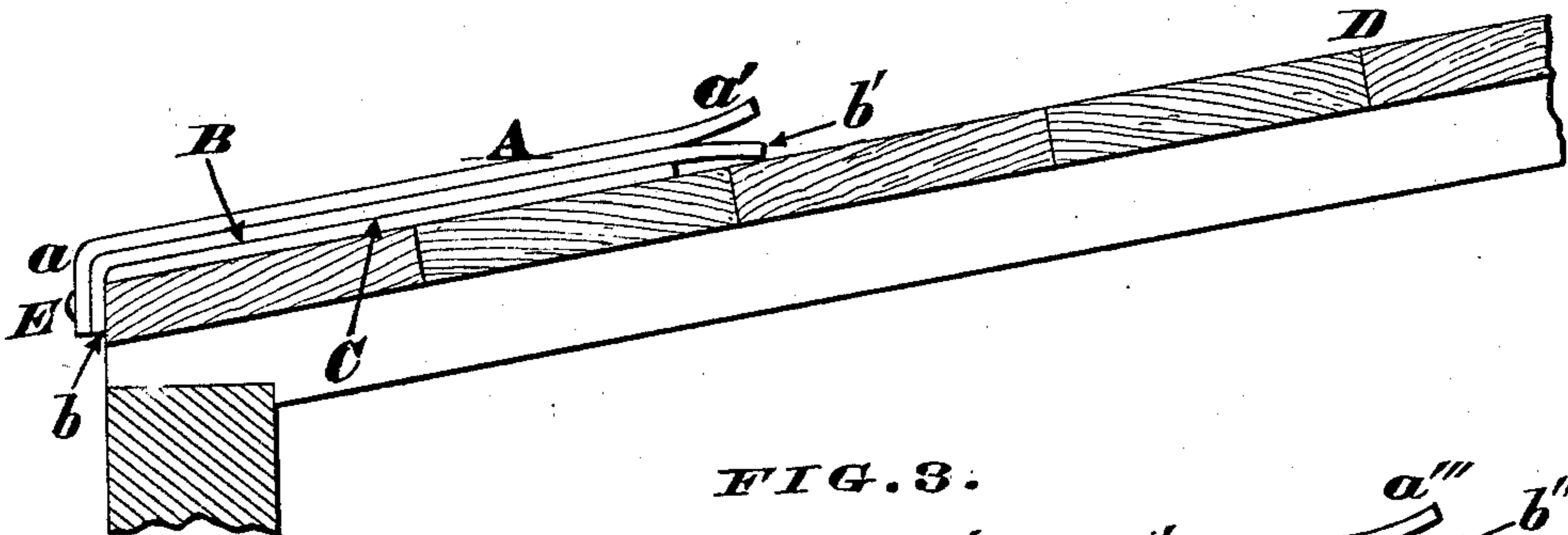


FIG. 3.

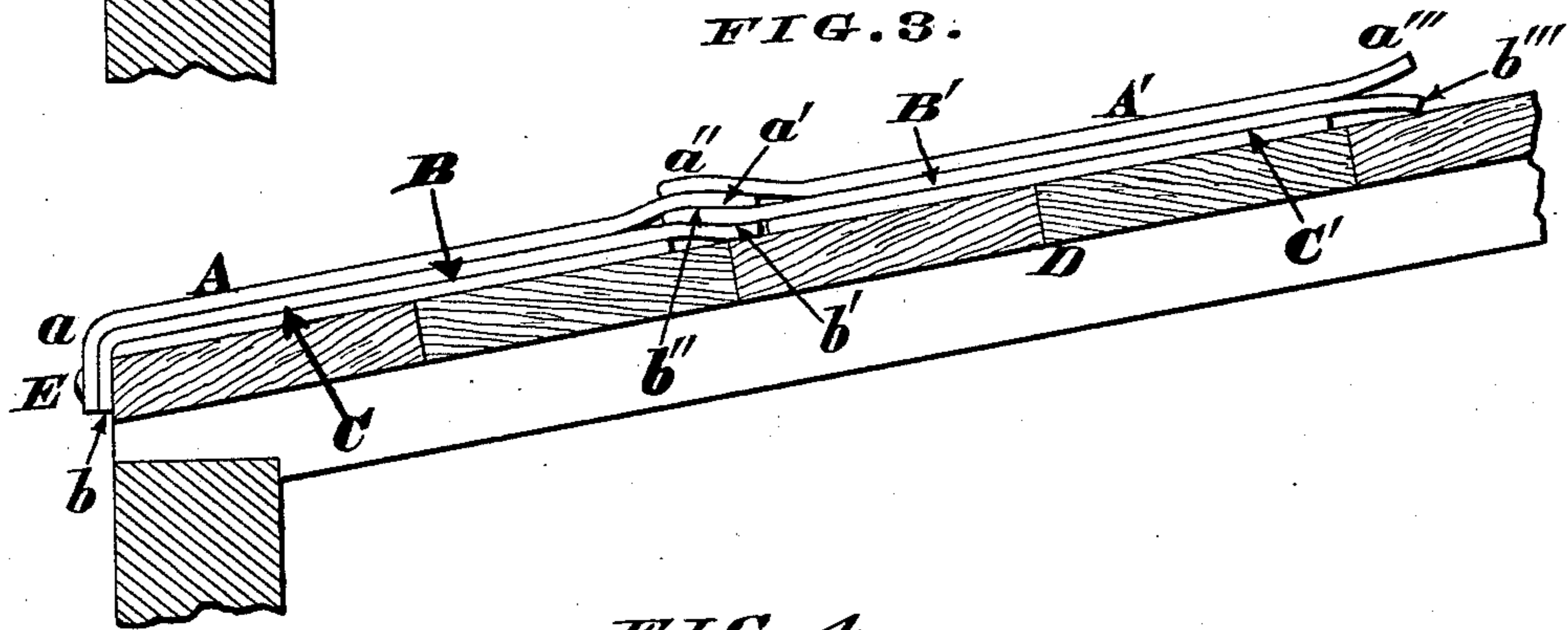
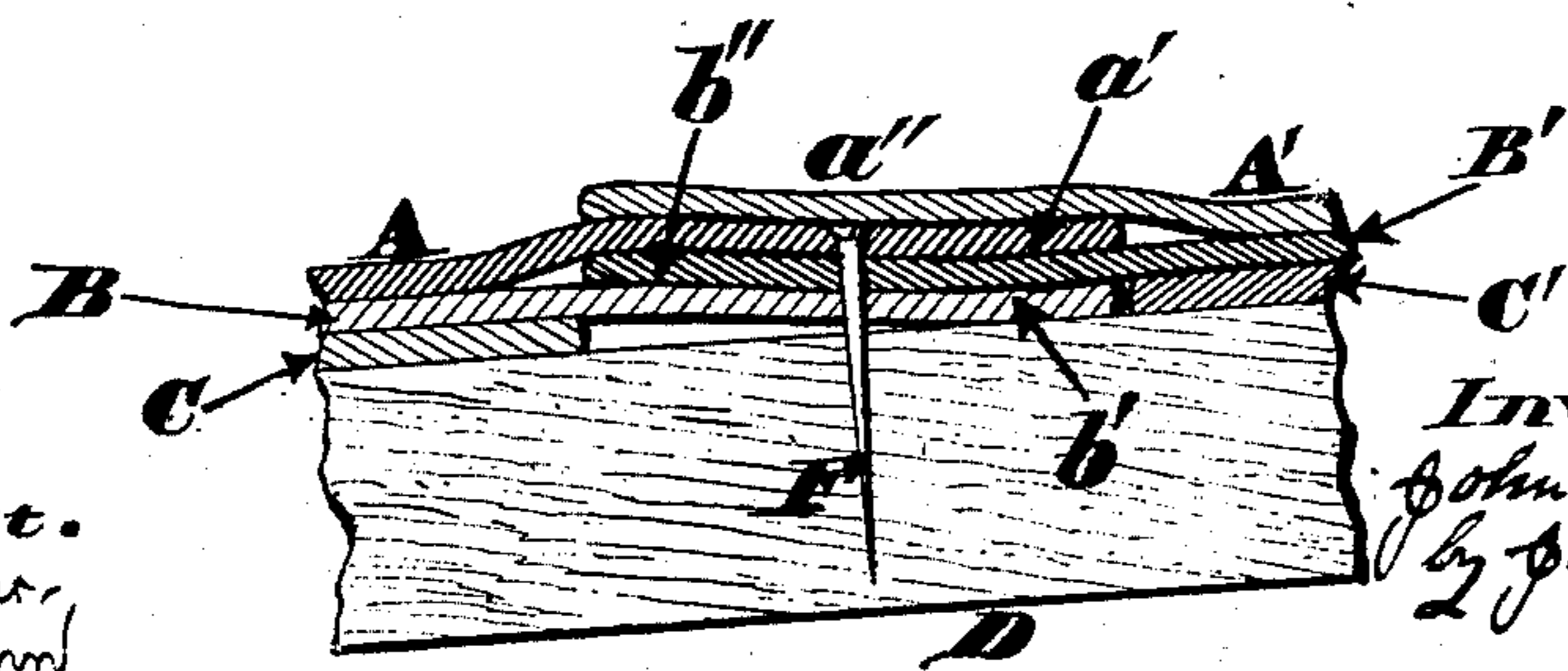


FIG. 4.



Attest.  
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# UNITED STATES PATENT OFFICE.

JOHN F. HOFFMAN, OF CINCINNATI, OHIO.

## COMPOSITION ROOF.

SPECIFICATION forming part of Letters Patent No. 285,131, dated September 18, 1883.

Application filed June 25, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. HOFFMAN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Composition Roofs, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to construct composition roofs in such a manner as to afford secure and water-tight joints at the junctions of the various sheets usually employed for this purpose. I accomplish this result by cementing together three sheets or layers of tarred paper or other suitable felt or fabric, the under sheet being about four inches narrower than the intermediate and outer sheets. Furthermore, the opposite edges, both of the outer and intermediate layers, are left free or uncemented, thereby affording flexible flaps that can be readily bent by the roofer. In applying the roof the flaps of one sheet are inserted between or interlocked with the flaps of the contiguous sheet, and these various flaps being then properly pitched or cemented and nailed to the sheathing or other backing, a joint is produced that is perfectly tight and secure under all conditions of weather, said joint projecting such a slight distance above the general level of the roof as to present no obstacle whatever to the free shedding of water, snow, &c., as hereinafter more fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is a perspective view, showing the under side of my improved roofing-sheet. Fig. 2 shows the method of fastening the first sheet to the roof. Fig. 3 shows the method of interlocking the flaps of the second sheet with the flaps of the first sheet. Fig. 4 is an enlarged section through said engaged flaps.

As more clearly seen in Fig. 1, each sheet of my roofing material is preferably composed of an outer layer, A, an intermediate layer, B, and an inner or bottom layer C. These various layers may be composed either of thick paper, or canvas, or felting, or any other flexible fabric that can be securely cemented together and used for roofing and similar purposes. Furthermore, these layers or webs

may be of any length and width that will allow them to be conveniently handled and applied. The inner layer C is usually from four to six inches narrower than the other layers, A B, although all of these pieces A B C are cemented together, so as to form practically a single sheet. The cement, however, is so applied to said layers A B as to leave their opposite margins, *a a'* and *b b'*, perfectly free, thereby converting these members into flexible flaps which extend inwardly about as far as the edges of the bottom layer C. To cover a roof the first sheet is so applied thereto as to bring the lower edge of the bottom layer, C, in line with the margin of sheathing D, after which act the flaps *a b* of the other layers, A B, are turned down and nailed or otherwise secured at E, as seen in Fig. 2, reference to which illustration shows that the other flaps, *a' b'*, of the layers A B are free. The second sheet, A' B' C', is then laid down parallel with the first sheet, A B C, the flap *b'* of the layer B being fitted snugly against the lower edge of the bottom layer C' of this second sheet, and the flap *b''* of layer B' is lapped over said flap *b'*. Cement is now applied to the upper surface of this latter flap *b''*, and the flap *a'* of layer A is then united thereto. The nails or other retaining devices F (seen in Fig. 4) are then driven through these cemented flaps into the sheathing D. Finally, cement is spread upon the upper surface of flap *a'*, and the flap *a''* of layer A' being united thereto, the joint is complete, and the finishing-coat of tar, pitch, cement, or paint may be added. This first joint of the roof is seen in Fig. 3, which illustration also shows that the flaps *a''' b'''* at the upper margins of layers A' B' are free to be interlocked with the appropriate flaps of the third sheet in the manner just described. Reference to Fig. 4 shows that although the joint is composed of no less than four thicknesses of material, yet the upper surface of said joint projects but very little above the general level of the roof, and hence there are no serious ledges in the same for water and snow to lodge against. This slight projection of the joint is due to the fact that the bottom layers, C C', are narrower than the other layers, A B A' B', of their respective sheets, for it is evident that

if said layers C C' extended the full width of the sheet the joint would be composed of six thicknesses of material.

5 If desired, each sheet of the roofing material may be composed of four or five or more layers; but this construction would be very unhandy to apply, and as all the advantages of such an arrangement could be obtained by simply increasing the thickness of the layers, 10 it is preferred to use three of them. Again, by thus increasing the thickness of the fabric, two layers might be sufficient in some cases, and the right is reserved of modifying the invention to this extent. Finally, the separate 15 layers A B C may be saturated with any suitable water-repellent before being incorporated into one sheet.

I claim as my invention—

1. As a new article of manufacture, a sheet 20 for composition roofs, which sheet is composed of a lower layer of felt or other suitable ma-

terial, upon which is cemented one or more wider layers having free marginal flaps projecting beyond both edges of said lower or narrow layer, and adapted to interlock with 25 the marginal flaps of the adjoining sheet, as herein described.

2. A composition roof composed of a sheet, A a' B b' C, cemented together, as herein described, the flaps a' b' thereof being inter- 30 locked with the flaps a'' b'' of the other sheet, A' a'' a''' B' b'' b''' C', as explained, nails or other retaining devices, F, being driven through these flaps into the sheathing or other backing, as set forth.

35 In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. HOFFMAN.

Witnesses:

JAMES H. LAYMAN,  
HENRY C. BRADLEY.