

S. B. WOOLFOLK.

Improvement in Construction of Roofs.

No. 132,345.

Patented Oct. 15, 1872.

Fig. 1.

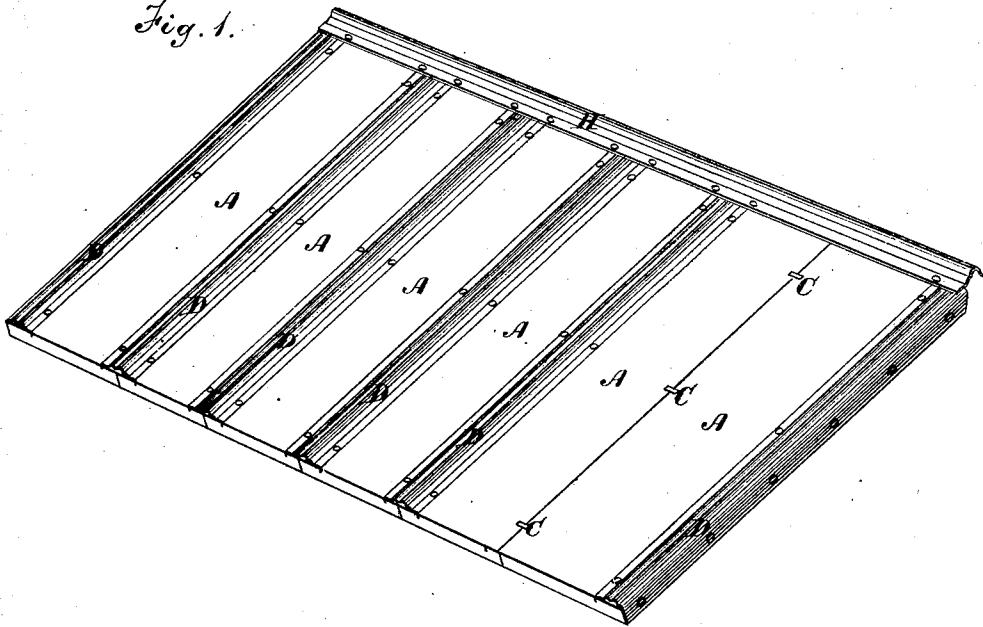
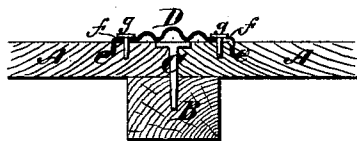


Fig. 2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

SAMUEL B. WOOLFOLK, OF SCOTTVILLE, ILLINOIS.

## IMPROVEMENT IN THE CONSTRUCTION OF ROOFS.

Specification forming part of Letters Patent No. **132,345**, dated October 15, 1872.

*To all whom it may concern:*

Be it known that I, SAMUEL B. WOOLFOLK, of Scottville, in the county of Macoupin and State of Illinois, have invented a new and useful Improvement in Constructing the Roofs of Buildings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of a roof constructed in accordance with my invention, and Fig. 2 is a sectional view, showing the method of protecting the joints of the roof-boards and of securing the latter to the purlines.

Similar letters of reference in the accompanying drawing indicate the same parts.

My invention has for its object to improve the construction of that class of roofs for buildings having sheet-metal battens placed over the joints of the boards to render them water-tight. To this end the invention consists in holding the roof-boards to the roof by large flat-headed nails, driven between them into the purlines to admit of the boards contracting and expanding under the influence of the weather, in combination with sheet-metal battens nailed to the roof and constructed with corrugations so as to contract and expand with the boards, and at the same time press downward upon them at or near the joints to prevent their warping.

I am aware that sheet-metal battens have been used with a raised center some distance from the boards; but this form while it excludes water from the joints when the battens are first applied does not prevent the boards from warping so as to loosen the battens and permit them to be easily torn off by the wind. I am also aware that battens without corrugations have been employed with their edges bent under flanges formed in two adjoining boards, parallel to and near the joint. This construction adapts the batten to rest directly upon the joint and to expand slightly as the boards are swelled by the weather, but its application requires a peculiar fitting and working of the boards—to wit: deep grooves each side the joint in order to produce the flanges for holding the batten. My invention constitutes an improvement upon these two forms,

because it combines the elasticity of the corrugated battens with the downward bearing and pressure of the flat battens.

In the accompanying drawing, A represents the roof-boards, and C the large flat-headed nails or screws, driven between them into the purlines B so that their heads shall overlap the edges of the boards and permit them to expand and contract under the influence of the weather, and at the same time prevent them from being displaced from the purlines. D are the battens, composed of sheet metal, provided with a number of longitudinal corrugations, preferably more than two, and having the edges *e* bent downward, so as to enter the boards upon each side of a joint, as shown. The battens are secured to the boards by nails, *g*, driven through the flattened surfaces *f*, which are formed between the flanges and corrugations. The corrugations are so formed that the battens shall expand and contract with the expansion and contraction of the boards, and at the same time bear constantly down upon them at several points to prevent their springing upward or warping at the joints. One or more of the corrugations may also bear upon the heads of the nails, if desired, to prevent them from working loose.

The ridge piece H of the roof is also constructed with a number of corrugations and with flattened surfaces *f*, which overlap the upper ends of the battens.

The flanges *e* are not employed, but the corrugations rest upon the roof-boards the same as the battens.

Having thus described my invention, what I claim is—

The roof-boards, held to the roof by the large flat-headed nails passing between them to admit of their contraction and expansion, in combination with the sheet metal battens D having the flanges *e* and flattened surfaces *f* and corrugated so as to contract and expand with the roof-boards and at the same time have a constant bearing-surface upon the same at several points, substantially as described, for the purpose specified.

SAMUEL B. WOOLFOLK.

Witnesses:

J. C. MCKNIGHT,  
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