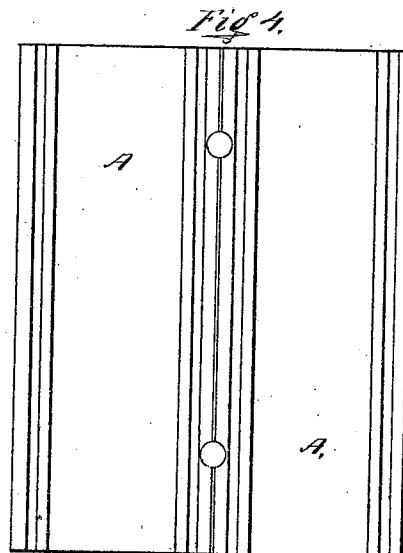
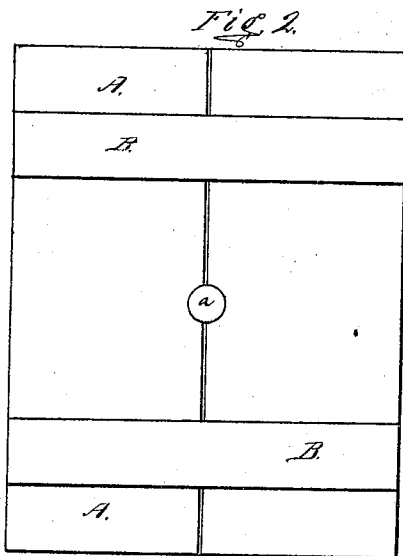
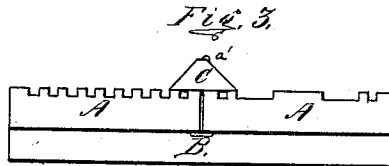
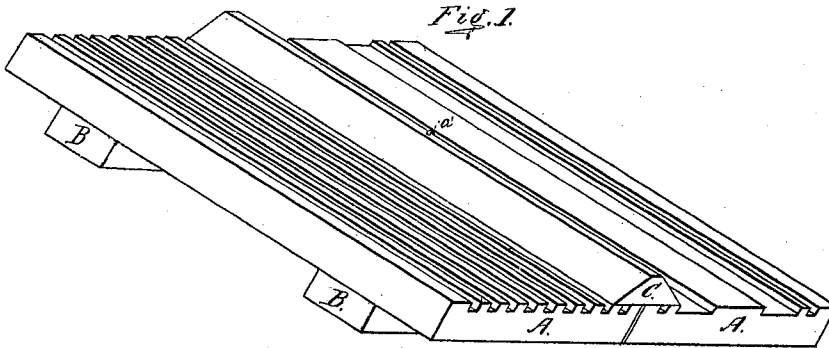


G. W. ROBINSON.

Improvement in Battening Roofs.

No. 132,737.

Patented Nov. 5, 1872.



Witnesses,
Chester H. Robinson
J. B. Hall

Inventor,
George W. Robinson

G. W. ROBINSON.

Improvement in Battening Roofs.

No. 132,737.

Patented Nov. 5, 1872.

Fig. 5.

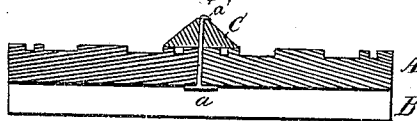


Fig. 6.

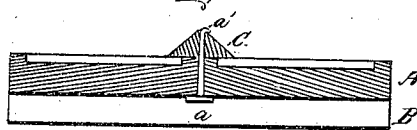
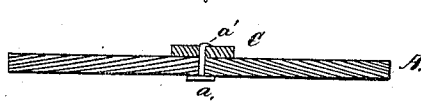


Fig. 7.



Witnesses.

Chester H. Robinson

[Signature]

Inventor.

George W. Robinson

UNITED STATES PATENT OFFICE.

GEORGE W. ROBINSON, OF BENNINGTON CENTRE, VERMONT.

IMPROVEMENT IN BATTENING ROOFS.

Specification forming part of Letters Patent No. 132,737, dated November 5, 1872.

To all whom it may concern:

Be it known that I, GEORGE W. ROBINSON, of Bennington Centre, county of Bennington, and State of Vermont, have invented a new and Improved Method of Roofing; and that the following description, taken in connection with the accompanying drawing hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The nature of this improvement will be distinctly understood from the specification and drawing. The object desired to be attained thereby is to provide a durable covering for barns, sheds, bridges, &c., or for siding of buildings, which will be water-tight, or nearly so, and capable of standing heat and cold without warping, cracking, or splitting the boards, and one that can be made at a great reduction in the cost of labor and material, and one that can be more conveniently put upon buildings and repaired than those now in use. The invention consists in the method, hereinafter described, of making a roofing or covering for buildings; also, the combination of the boards A A, batten C, and a reversed and upwardly-driven nail, *a*, as hereinafter described.

I will now proceed to describe the drawing, in which the same letters indicate like parts in each of the figures.

General Description.

Sheet No. 1.—Figure 1 is a perspective view of a roofing embodying my invention; Fig. 2 is a bottom view of the same; Fig. 3 is an end view; and Fig. 4 is a plan view of Fig. 1 with the batten C removed to show the nail-heads.

Sheet No. 2.—Fig. 5 is a transverse section of Fig. 1 through the nail *a*, showing the nail as it is situated between the roof-boards and the manner in which it holds the boards to the batten; Fig. 6 is a view of the same with the upper surface of the boards made plain and with but one ridge at their edges; and Fig. 7 is a view of the same with roof-boards and batten plain.

A A represent roof-boards or planks which run up and down on a building, and enough of

these are used to cover the same; their edges are left plain and touch together, or nearly so, as seen in the drawing. These may be of any width or thickness desired, and may extend from the top to the bottom of the roof proper, or but a part of that distance, and several be used. B B are the roof-timbers, which run at right angles to the rafters, and are fastened to the same at such distance apart as may be desired to properly support the roof-boards. C is the batten which covers the cracks or spaces between the roof-boards (and every crack or space is provided with one) over the whole roof, and they may extend from the top to the bottom, and in one piece or be in several pieces. The roof-boards are attached or held to the roof timbers by nails *b b*, which are driven downward in the cracks or spaces between the boards into the roof-timbers; the shanks of these nails are not seen in the drawing, but their heads are shown in Fig. 4, and are flat and round, or disk-shaped; they may be of other form, however, as will be set forth hereinafter. The heads are sunken somewhat into the roof-boards, so that the upper surface of the former will be flush with the surface of the latter; this permits the batten to set flat and even on the boards. The batten is attached or held upon the roof-boards by the nails *a a*, seen in Figs. 2, 5, 6, and 7, which are driven upward from beneath and between the boards A A and into the batten C, the head being on the under side of the boards; this is an important feature of my invention.

In the drawing the heads of the nails *a a* are shown as round and flat, but they may be of any other form so long as the heads are broad and still accomplish the end in view in the same way, as will be hereinafter described.

To a person skilled in the art it will be readily understood that the broad-headed nails will hold the roof-boards to the roof-timbers, at all times, and under all circumstances, and still permit them to contract and expand from cold and heat; the heads of the nails are countersunk, as aforesaid, therefore they cannot catch or rub upon the under side of batten and the latter, as it covers them and the crack or space between the boards, at all times prevents leakage.

The batten C is held in a similar manner, at all times, and under all circumstances, over

the crack or space between the boards by the nails *a a*, for as their heads are broad they extend under each of the boards laterally, and hug or hold the boards to the batten whether the former or latter contract or expand from the effects of the weather. The batten must, in all cases, be wide enough at its base to permit the boards to contract laterally and still rest upon them both.

By this method of making a roofing or siding for a building there is no danger of the boards or batten becoming displaced by wind, rain, snow, heat, or cold.

The roof-boards may be plain on their upper surfaces, or grooved, or shaped otherwise without departing from the spirit of my invention. In each of the figures the upper surfaces of the roof-boards are shown of different shape or contour: In Figs. 1 and 3 one board has grooves running longitudinally over its entire length and width, while the other has but two ridges formed by grooves running near each edge and a raised piece along the center; either shape can be used for both boards, or they can be used together. In Fig. 4 the boards are plain on the surface save two ridges along the edges. In Fig. 5 two ridges run along the edges of the boards, and a raised piece through the center of each. In Fig. 6 the boards are plain save a single ridge along the edge of each. In Fig. 7 the boards are plain on their surfaces.

The boards having two ridges running along their edges probably make the tightest roofing, for the second groove intercepts the water entirely.

The batten may be of almost any shape; in cross-section it may be either rectangular, circular, three-cornered, &c.; the different figures, save the seventh, show the batten as three-

cornered, flat on the bottom, with sloping sides, which meet at the apex; in Fig. 7, simply a strip of board is shown.

In each of the figures the nails are shown as having flat round heads, but it is evident that heads shaped otherwise would accomplish the same result equally as well; for instance, they might be long-headed, (T-shaped,) flat-headed, square-headed, round-headed, &c. Screws I sometimes use instead of nails both to hold the boards down on the timbers and to hold the batten to the boards; perhaps they are in some cases preferable. It will be observed that it is necessary in all cases that the heads of the nails or screws be broad enough to rest on the boards when they contract in dry weather; the shape of the head is not material. The nails *a a* may, or may not, extend upward through the batten; in some cases I permit them to extend through and clinch them, as seen at *a'*.

The roofing may be composed of soft or hard wood, or in part of each, or the batten may be metallic or composed of vegetable matter.

I have thus endeavored to show the nature, construction, and advantage of this improvement.

Claim.

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

The broad-headed nails *a a'* in combination with the batten *C* and roof-boards *A A* when used between said boards in the manner specified.

GEORGE W. ROBINSON.

Witnesses:

JAS. H. WALBRIDGE,
THOMAS WHITE.