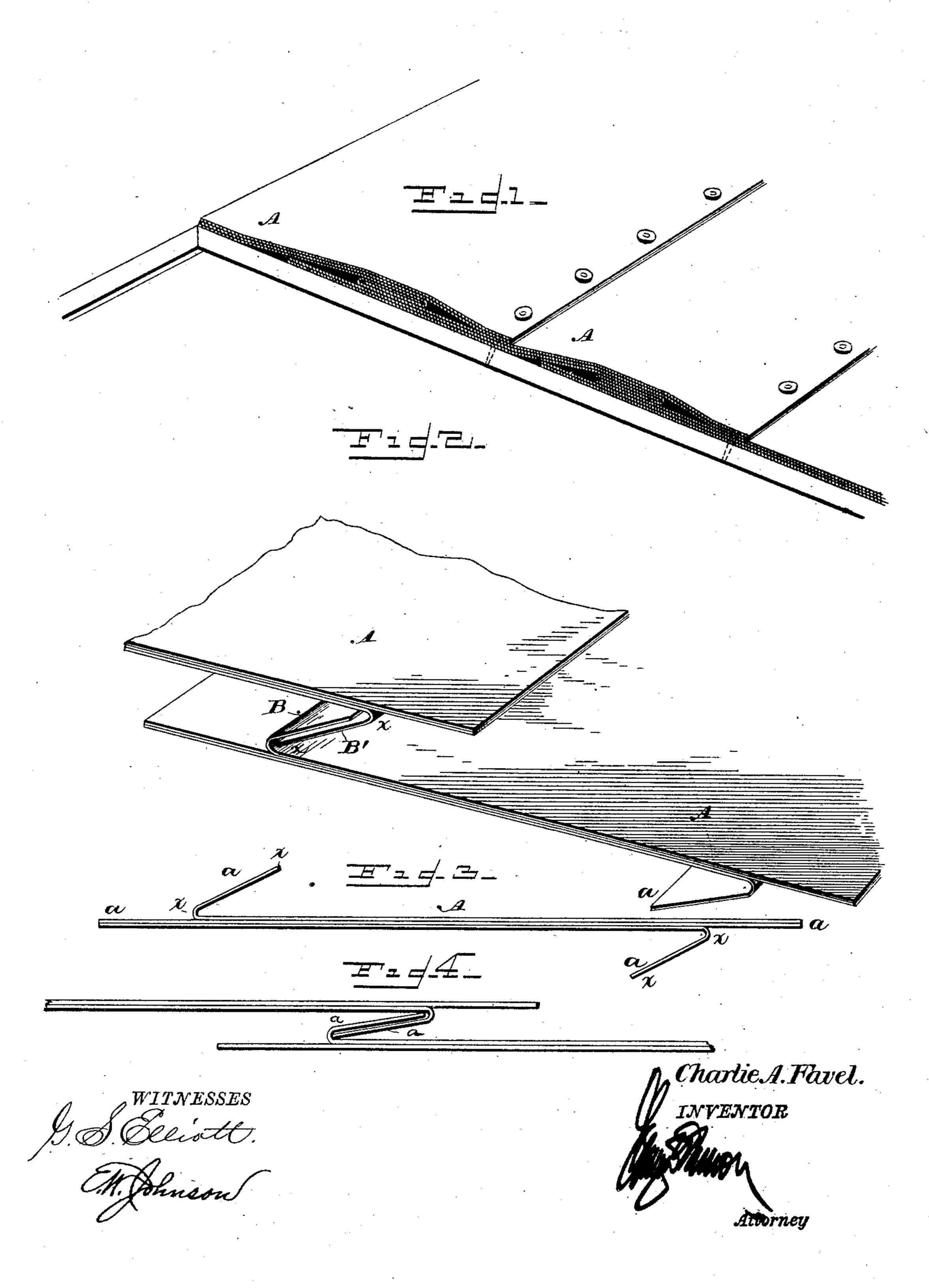
(No Model.)

C. A. FAVEL.

FELT ROOFING.

No. 354,311.

Patented Dec. 14, 1886.



## United States Patent Office.

CHARLIE A. FAVEL, OF OBERLIN, OHIO.

## FELT ROOFING.

SPECIFICATION forming part of Letters Patent No. 354,311, dated December 14, 1886.

Application filed July 15, 1886. Serial No. 208,127. (No specimens.)

To all whom it may concern:

Be it known that I, Charlie A. Favel, a citizen of the United States of America, residing at Oberlin, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Felt Roofing; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in joints for felt roofing.

The object of my improvement is to construct a water-tight joint between the edges of the sheets which will be easy to form, and when formed will be perfectly water-tight; and to this end my invention consists in folding or bending one or more plies or thicknesses of the roofing material of each strip upon itself so that they will interlock, said interlocking portion of the sheets of roofing-felt.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view, partly in section, showing the form of joint as made from three-ply roofing material or felt. Fig. 2 is a perspective view showing the parts separated from each other. Fig. 3 is an end view of one of the sheets, and Fig. 4 is an end view showing a similar joint ap-

35 plied to two-ply roofing. A refers to the sheets of roofing-felt, which may be, as shown in Figs. 1 and 2, made up of three thicknesses or separate sheets, which are united to each other by tar, asphalt, or other 40 similar substances. The ends or lower edges of the ply a of the strips or sheets A are separated from each other, either after being manufactured or during the process of manufacture, by not coating the under side of one of the 45 plies between the points x x with the adhesive material—as tar or asphalt—so that a portion of said ply will be loose and can be readily turned back to form a joint with the loose upper edge of the adjacent sheet. It will be 50 noticed that the upper edge of the top ply of each sheet has a portion which is loose from

the center ply, so that it can be folded over upon itself, and also that the under ply of each sheet is similarly bent, thus providing in a three-ply roofing-felt a center ply which extends the whole width of the sheet, while the top ply at the upper edge is bent upon itself, the under ply being similarly bent at the lower edge.

In building a roof with felt having my im- 60 proved interlocking joint, the first strip is secured to the boards of the roof, the lower edge of each ply being parallel with each other, the upper edge of the lower strip or sheet is then bent upon itself, and under the bent portion B 65 is placed the bent portion B' of the next sheet. The lower edge of said sheet is then secured by suitable fastening devices, as tacks, to the boards, and the remainder of the roof is continued in the same manner, thus producing a 70 water-tight joint below the upper edges of each strip, through which water cannot pass, while the lower edges of the strips are secured securely to the adjacent strip and to the boards of the roof. If desirable, the same form of 75 joint can be employed with two-ply felt, as shown in Fig. 3.

I am aware that it has been proposed to interlock the joints of felt roofs by placing plies of the adjacent sheet at their edges between 80 the plies of the adjacent sheets, and I do not claim such construction, broadly; and, also, that it is not broadly new to form a lock-joint or single-ply roofing-sheets.

My improved joint not only forms a water- 85 tight joint between the sheets, but also serves to hold the adjacent sheets securely to each other.

I claim-

1. As a new article of manufacture, a sheet 90 for composition roofs, the body portion whereof is made up of two or more plies, the upper and lower plies at the edges of the sheets on opposite sides being adapted to be folded toward the center of the sheet, substantially as 95 shown.

2. A roof composed of sheets or strips of felt or like substance, each strip consisting of two or more plies united except at the edges, and one of the plies being bent in upon itself 100 at the edge to interlock with the bent ply of the next adjacent sheet, whereby the strips of

a roof are united by interlocking joints protected on each side by a straight flap, substantially as described.

3. In a composition or felt roof, the covering-5 strips A, made up of two or more plies, united as shown, the plies at the edges of said strips being disconnected, whereby one ply may be bent inward upon itself at the edge, and over-

lapped by the edges of the adjacent ply or plies, substantially as described.

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

CHARLIE A. FAVEL.

Witnesses:

A. ECHNURTH, J. E. HITCHCOCK.