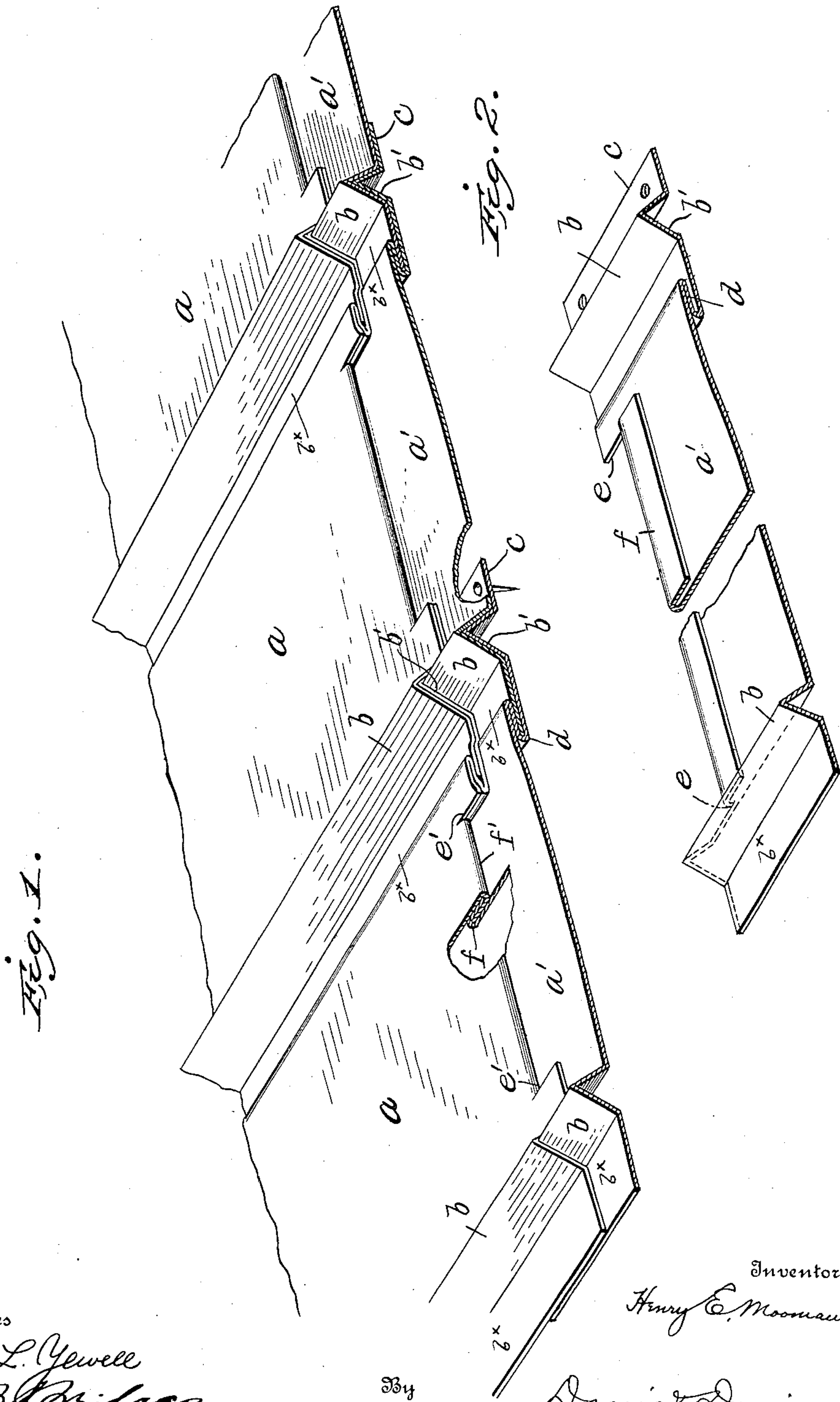


No. 884,285.

PATENTED APR. 7, 1908.

H. E. MOOMAW.
SHEET METAL ROOFING.
APPLICATION FILED OCT. 31, 1907.



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UNITED STATES PATENT OFFICE.

HENRY E. MOOMAW, OF SALEM, VIRGINIA.

SHEET-METAL ROOFING.

No. 884,285.

Specification of Letters Patent.

Patented April 7, 1908.

Application filed October 31, 1907. Serial No. 400,043.

To all whom it may concern:

Be it known that I, HENRY E. MOOMAW, a citizen of the United States, and a resident of Salem, county of Roanoke, State of Virginia, have invented certain new and useful Improvements in Sheet - Metal Roofing, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view, partly in section, of a portion of a roof, showing the manner of connecting the adjacent plates. Fig. 2 is a detail sectional perspective of a part of the upper end of one of the plates.

The object of this invention is to so shape and connect the plates together that the roof shall be practically non-leakable, and the invention also has other objects in view which will appear in the course of this specification.

To the accomplishment of this object and such others as may hereinafter appear, the invention consists of the parts and combination of parts hereinafter fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings forming a part of this specification, in which the same reference characters designate like parts throughout the several views.

Referring to the drawings by reference characters, *a* designates an upper series of sheet-metal roofing plates and *a'* the next adjacent connected lower series. Each of these plates is provided a short distance from and parallel to its left-hand side edge with a V-shaped ridge *b*, formed by pressing up the body of the metal at that point, the portion outside the ridge forming a locking lip or flange *6*^x. Adjacent to and parallel with the right-hand edge is formed a similar V-shaped ridge *b'*, the space outside of this ridge being adapted for use as a nailing flange *c*.

To the left of the ridge *b'* the metal is folded longitudinally to form a longitudinal pocket *d* which opens toward said ridge *b'*, the metal being so folded that the upper wall of this pocket is formed of two thicknesses of metal and the lower wall of one thickness. The upper edge of each plate is slitted downwardly at *e*, one slit being formed near the pocket *d* and the other being formed near the ridge *b* at the other side of the sheet, and the edge of the sheet between these two slits is turned over upon the main body of the sheet to form a downwardly opening pocket *f*. The lower edge of each sheet is slitted up-

wardly at *e'* in the same manner and the free edge is folded under to form an upwardly opening pocket *f'*.

With the sheets constructed as described, they are interlocked and fastened to the roof in the manner shown in Fig. 1. As will be seen, each plate is fastened to the roof-boards by nails driven through its nailing flange *c*. After each plate is thus fastened the plate to the right is then interlocked with the previously-fastened plate by inserting its left-hand edge *6*^x into pocket *d* and bringing it down upon the roof, its ridge *b* fitting down over the ridge *b'* of the previously fastened plate, and then the nailing flange of this latter plate is fastened, and so on until all the plates across the roof are interlocked and fastened. The next upper row of plates is interlocked and fastened in the same manner except that their lower edges are overlapped upon the row of previously fastened plates next below and their underturned edges are engaged into the pockets *f* formed on the upper edges of the lower series of plates, as shown in Fig. 1.

It will be observed that all the plates will be securely locked together and will form in their entirety a structural unit and each plate will be required to be fastened at but one edge. A feature of importance lies in the fact that all the nails will be covered in the completed roof thereby avoiding leakage at the nail-holes. Also it will be observed that the seams are absolutely watertight at all points there being no uncovered raw edges at either side of the seams to permit water to flow or be blown up from any direction over the seam ridge.

With the ordinary method of fastening metal plates to the roof-boards expansion and contraction soon loosens the nailed seams and thus inevitably causes leakage; I avoid this objection by nailing my plates at one edge only, whereby the entire plate is left free to expand and contract. It will be observed also that my construction avoids the objectionable wooden sticks heretofore used to support the V-ridges and receive the fastening nails, and it will be noted also that I avoid the use of all separate fastening clips.

The construction admits of the V-ridge being closed to form a more rigid upstanding seam, these being perhaps desirable in some cases where a more rigid ridge is of advantage. This ridge may be closed up during the process of laying the roof, before the plate

is nailed, by simply squeezing it with a pair of ordinary tinnerns' tongs.

It will be observed that the upstanding V-shaped ridges are practically the same height and are both higher than the lock fold d and that the lock fold opens toward the adjacent ridge. This construction causes the upstanding adjacent wall of the V-ridge to wedge or force the lock flange into the lock fold throughout its length so that the laying of the sheets will be an easy matter even with unskilled labor and the sheets will and in fact must always be laid properly.

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

A sheet metal roofing plate having an inverted V-shaped ridge parallel with and a short distance from one edge and another similarly shaped and dimensioned ridge par-

allel with and a short distance from its other edge, the part of the plate outside of this latter ridge serving as a nailing flange, and a longitudinal pocket-like channel inside of and adjacent to this latter ridge and opening toward the same and being less in height than the same, whereby the longitudinal edges of a series of such plates are overlapped and interlocked and the ridges of each pair of adjacent plates fit closely one over the other their entire length and form a reinforced upstanding ridge.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 28th day of October 1907.

HENRY E. MOOMAW.

Witnesses:

F. H. CHALMERS,
M. S. RUTHRAOPY.