(No Model.)

B. F. CALDWELL.

CAP AND ANCHOR FOR METALLIC ROOFING.

No. 381,756. Patented Apr. 24, 1888.

Fig. 1.

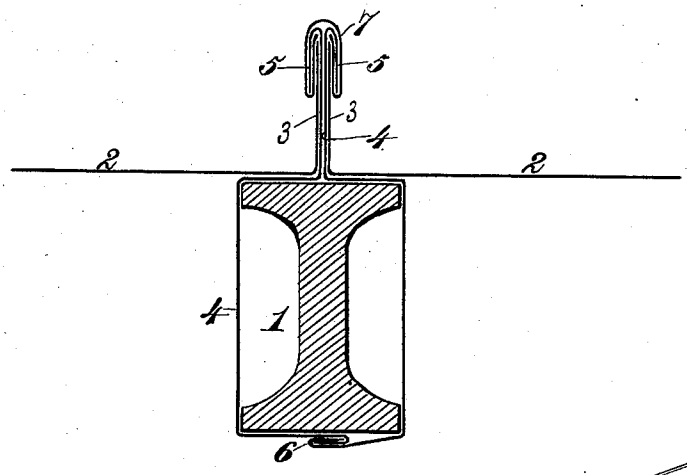


Fig. 2.

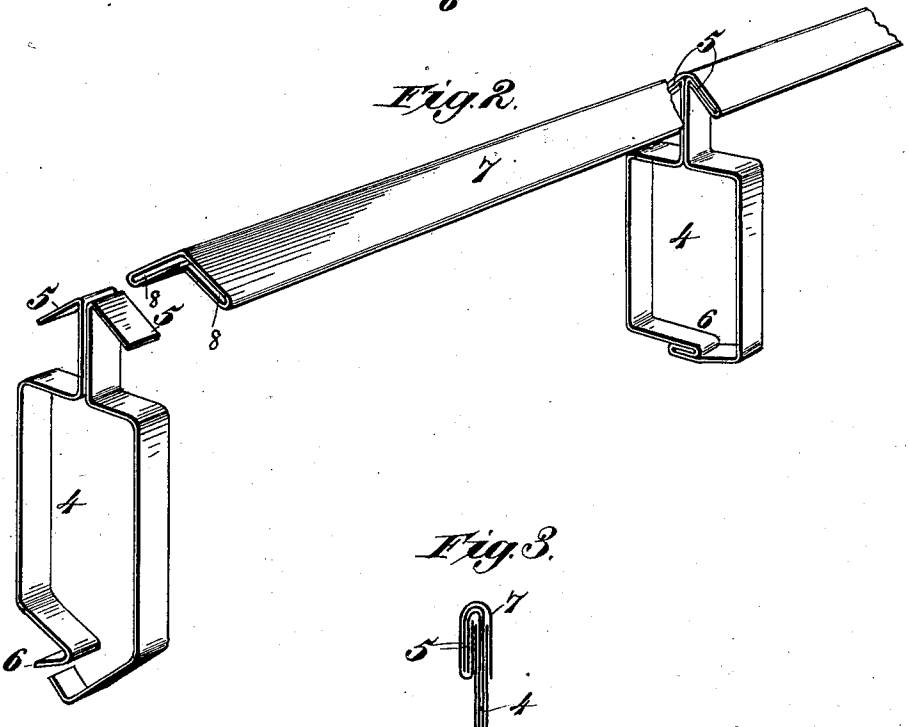
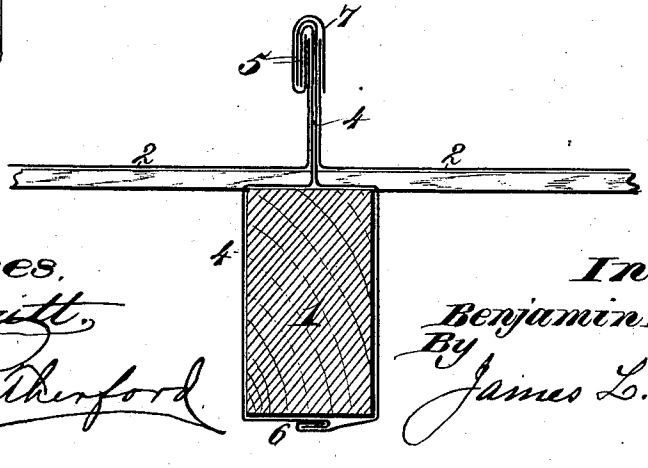


Fig. 3.



Witnesses.
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J. A. Rutherford.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. CALDWELL, OF WHEELING, WEST VIRGINIA.

CAP AND ANCHOR FOR METALLIC ROOFING.

SPECIFICATION forming part of Letters Patent No. 381,756, dated April 24, 1888.

Application filed August 15, 1887. Serial No. 246,998. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CALDWELL, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented new and useful Improvements in Caps and Anchors for Metallic Roofing, of which the following is a specification.

My present invention relates to improvements in the cap and anchor for metallic roofing for which Letters Patent No. 318,352 were granted to me May 19, 1885; and the invention consists in the construction and combination of devices described and claimed hereinafter, whereby the improved cap and anchor can be used with iron rafters as well as with the ordinary wooden beams and sheathing.

In the annexed drawings, illustrating the invention, Figure 1 is a sectional view of a portion of the structure of a roof supported by iron rafters and shows my invention applied thereto. Fig. 2 is a perspective view of my improved cap and anchors. Fig. 3 is a similar view showing my improved anchors attached to a cap of the construction described in my said former patent.

Referring to the drawings, the numeral 1 designates an iron rafter forming part of the roof structure, and 2 denotes the metallic roofing-plates having upturned flanges 3, as usual.

In order to connect the metallic roofing-plates 2 with the iron rafters in a secure, inexpensive, and convenient manner, I employ an anchor, 4, made of two metallic straps long enough to pass around and beneath the rafter, where they are connected or secured together, and to project at their opposite ends above the flanges of the roofing-plates. The upper ends of the metallic anchor-straps 4 are each made with an arm, 5, that is bent outward and downward in a direction opposite to its fellow, as shown in Figs. 1 and 2; or both arms may be bent in the same direction, one overlapping the other, as shown in Fig. 3. The lower ends of the anchor-straps 4 are interlocked beneath the rafter 1 by means of hooks 6, formed on each strap.

As shown in Fig. 1, the flanges 3 of the roofing-plates 2 project vertically beneath the downward and outward turned arms 5 of the anchor, and a cap, 7, fitted over the said anchor-arms 5, serves to hold the parts securely together. The cap 7 consists of a metallic strip angular in cross-section or formed with two opposing flanges bent approximately at a right angle to each other, and one or both of these cap-flanges will be bent or folded inward beneath the arms 5 of the anchor, as shown, thereby connecting the anchor and cap.

In the construction shown in Figs. 1 and 2 the anchor-arms 5 are bent outward and downward in opposite directions, and both cap-flanges are bent or doubled inward to form a longitudinal groove or recess, 8, on each side of said cap to receive one of the said anchor-arms. This construction of anchor and cap is preferable and possesses the advantage of holding both sides of the anchor with equal strength. As shown in Fig. 3, however, both anchor-arms 5 can be bent in the same direction, thereby adapting the anchor to be with the cap described in my said former patent, in which only one cap-flange is formed with a groove or recess to engage the anchor.

It is obvious that with either form of construction herein described the anchors, being loosely engaged with the cap, will be readily adjustable along said cap in the same manner and for a similar purpose as described in my former patent, No. 318,352, thereby enabling the anchors to be secured to the rafters at any convenient or desirable points, which cannot be easily done when the cap and anchors are rigidly connected.

By hooking the anchors together beneath the rafter, as shown, they can be conveniently and rapidly secured in position at any desired points, and when connected with the roofing plates and caps, as described, a firm and secure roof will be afforded.

This form of anchor is particularly applicable to iron rafters, but can be used as well with roofs of wood.

What I claim as my invention is—

1. The combination, with a cap angular in cross-section to form two flanges, of an anchor consisting of two metallic straps adjustably engaged with said cap, and having their lower ends hooked to interlock beneath a rafter, substantially as described.

2. The combination, with an angular cap having two flanges bent or doubled to form longitudinal grooves or recesses, of an anchor consisting of two metallic straps having at their upper ends arms adjustably engaged in the grooves of the cap and hooked lower ends adapted to interlock beneath a rafter, substantially as described.

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

BENJAMIN F. CALDWELL.

Witnesses:
W. J. W. CONDEN,
W. F. PETERSON.