

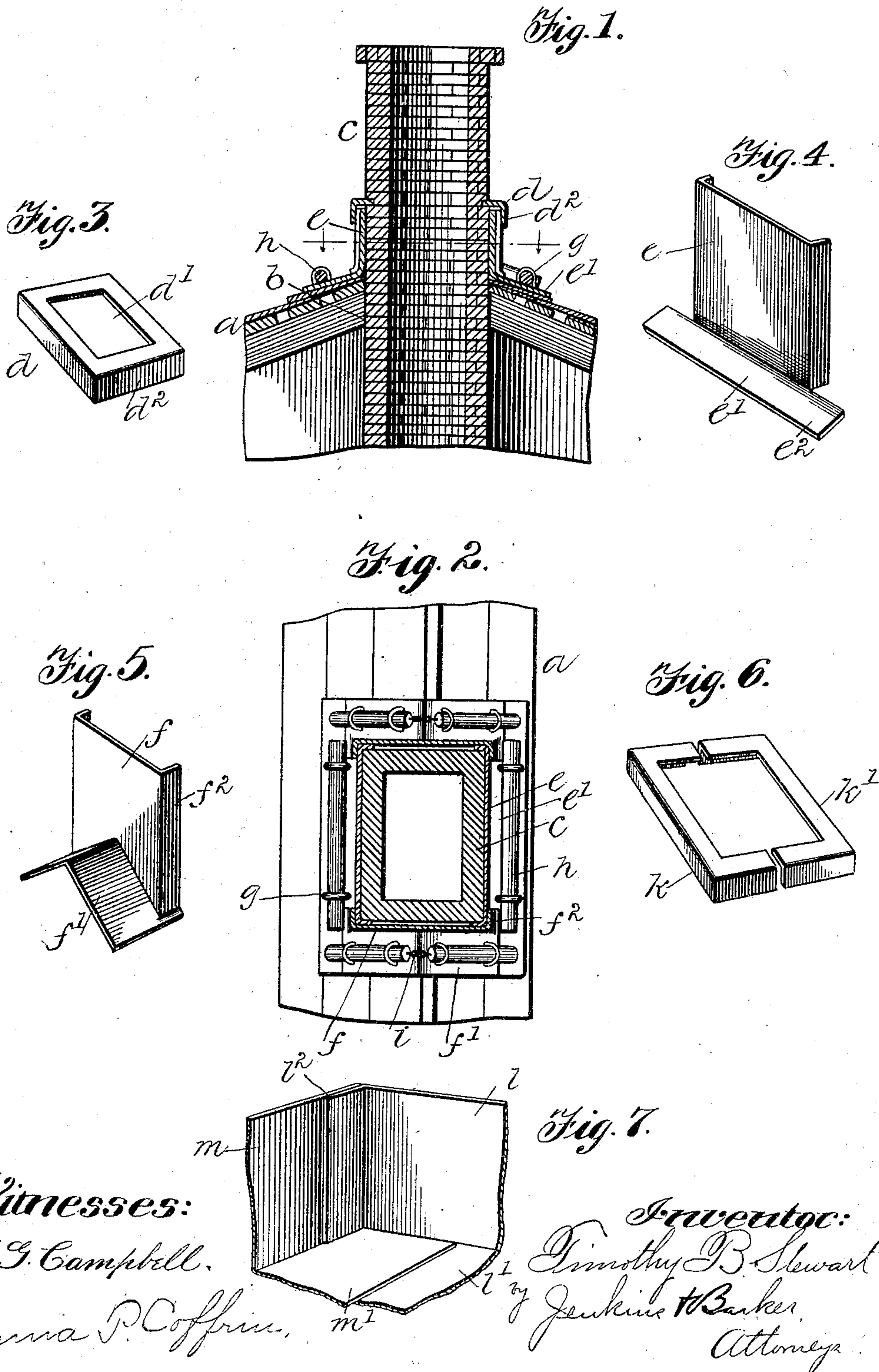
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T. B. STEWART.
ROOF.

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NO MODEL.



UNITED STATES PATENT OFFICE.

TIMOTHY B. STEWART, OF HARTFORD, CONNECTICUT.

ROOF.

SPECIFICATION forming part of Letters Patent No. 725,291, dated April 14, 1903.

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To all whom it may concern:

Be it known that I, TIMOTHY B. STEWART, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Roofs, of which the following is a specification.

My invention relates to the class of devices employed for securing a chimney-opening or the like through a roof against leakage, and the object of my invention is to provide a device of this class that may be easily and quickly applied, one that shall effectually prevent water from passing through the opening, and one that can be applied to old as well as new work. One form of device by the use of which these objects may be attained is illustrated in the accompanying drawings, in which—

Figure 1 is a view in vertical section through a roof, showing my improvement. Fig. 2 is a view in cross-section through the chimney. Fig. 3 is a perspective view of the cap. Fig. 4 is a perspective view of a side flashing. Fig. 5 is a perspective view of an end flashing. Fig. 6 is a perspective view showing the application of my improvement to old work. Fig. 7 is an inverted perspective view of a modified form of sectional cap.

In the accompanying drawings the letter *a* denotes the roof of a building or like part that may be constructed in any well-known and ordinary manner and composed of rafters, roof-boards, and shingles or slate. An opening *b* is formed through the roof, through which the chimney *c* passes. In the drawings herein this opening is shown at the highest point or ridge of an A-shaped roof; but it will be understood that the invention is equally applicable to any opening in a roof through which a chimney or like part may pass without the aid of anything more than mere mechanical skill.

In adapting my improvement to new work the chimney is built up to a point a slight distance above the outer surface of the roof, the roof being completed about the opening and the shingles, slate, or like part being laid up close to the chimney. A cap *d* is then placed on the brickwork, this cap being in

the form of a pan placed in an inverted position and with a hole *d'* through the bottom somewhat larger than the opening through the chimney, so that the edges of the opening will be located between the outer surface of the chimney and the wall of the opening therein. The chimney is then built up to the required height in the usual manner, the cap being secured between the layers, as shown in Fig. 1 of the drawings. The sides *d²* of this cap are located on the several sides of the chimney and at a distance from the outer surface thereof to allow the entrance of a flashing. These sides *d²* of the cap may extend downward to any degree to prevent the entrance of water thereunder and over the upper edges of the flashings.

Side flashings are formed with a wall *e* to rest against the side of the chimney, and a foot portion *e'*, bent at an angle to the wall and at such angle as to rest upon the shingles or outer surface of the roof. The foot of each side flashing is extended at each end, as at *e²*, beyond the ends of the wall *e* and in position to underlie the foot portion of the end flashings.

The end flashings are provided with a side wall *f* and a foot *f'*. The side wall of the end flashing is bent, as shown at *f²*, to lap over the ends of the wall *e* of the side flashings. The foot *f'* may be bent to angular form, as shown in the drawings, to pass over the ridge and lie on the roof on each side thereof, or if the chimney-opening and chimney are entirely on one slanting portion of the roof or on a roof of other construction, as a flat roof, it will be understood that this foot will be located and disposed with reference to the wall as to accommodate itself to any construction of roof.

When the improvement is to be applied to old work, as in cases where the chimney is already constructed, the cap is made in sections, as shown in Fig. 6 of the drawings. In the preferred form the cap is made in two halves and applied from opposite sides of the chimney, the mortar being removed between two courses of brick to an extent to allow the inner edges of the cap to be located in the space thus formed. After the cap has been

placed in position the cracks may then be filled with mortar, and the cap thus secured in place. The side and end flashings will be constructed and applied in the same manner as hereinbefore described.

The foot portion of each flashing is provided with a loop or loops *g*, secured to the flashing in any desired manner, and a weight *h* is inserted through these loops and serves to hold the flashing securely in place. In cases where the chimney - opening passes through the ridge of the roof the weights applied to the end flashings may be formed in two sections united by a flexible connection *i*, passing over the ridge. These weights may extend downward to a point opposite or beyond the ends of the weights on the foot of the said flashings, and thus prevent the latter from moving endwise out of the loops, as plainly shown in Fig. 2 of the drawings.

It is obvious that the details of construction may be departed from to a considerable extent and that the parts need not lap the one upon the other in the form as herein shown, but that other forms of construction may be employed and yet embody the main feature of the invention, which consists in a cap made in a single piece or in sections and secured to the chimney and of a flashing placed upon the roof and with its upper edges passing underneath the side wall of the cap and located between said wall and the chimney.

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

1. In combination with a roof and a chimney or the like passing therethrough, a cap secured to the chimney and having downwardly-extending side walls and a sectional flashing comprising two sections each having a foot portion resting upon the roof and a side portion extending upward within the cap and two other portions arranged to overlap the edges of the first-named portion and with in-

tegral and continuous foot portions passing over the ridge of the roof.

2. In combination with a roof and a chimney or like part passing therethrough, a cap secured to the chimney and having downwardly-extending side walls, a sectional flashing comprising side and end members, the side members provided with foot portions resting on the roof and projecting beyond the upturned side members, the end members having continuous integral foot portions passing over the ridge of the roof and adapted to underlie the foot portion of the side members.

3. In combination with a roof and a chimney or like part extending therethrough, a flashing having a foot portion resting upon the roof and a side portion resting against the chimney, means for securing the side portion in position, and a weight removably secured to the foot portion.

4. In combination with a roof and a chimney or like part extending therethrough, a cap extending around the chimney and having downwardly-extending side walls, a flashing having a foot resting upon the roof and a side part extending upward between the side of the cap and the outer surface of the chimney, and a weight removably secured to the foot.

5. In combination with a roof or like part and a chimney extending therethrough, a cap having its bottom portion extending into the walls of the chimney and downward-extending side parts, a flashing composed of sections each having a foot resting upon the roof and a side part extending upward between the side part of the cap and the outer surface of the chimney, and a weight removably secured to the foot portion of the flashing.

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Witnesses:

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