(No Model.)

J. WHITE.

FLASHING FOR WALLS AND CHIMNEYS.

No. 423,888. Patented Mar. 18, 1890.

Fig. 9.

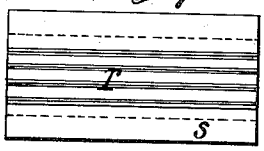


Fig. 10.

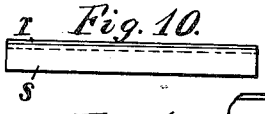


Fig. 8.

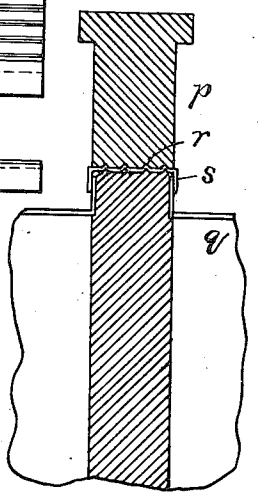


Fig. 1.

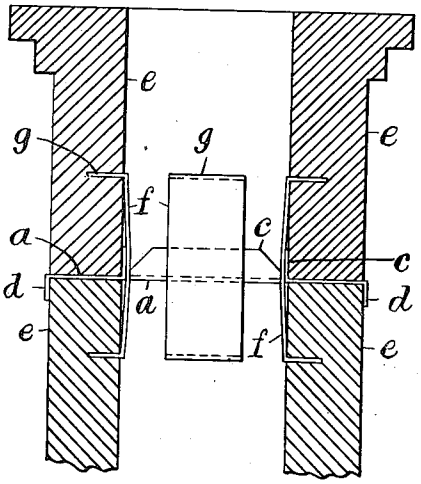


Fig. 6.

Fig. 7

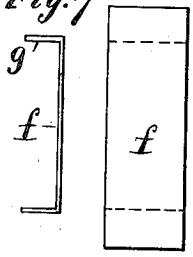


Fig. 4.

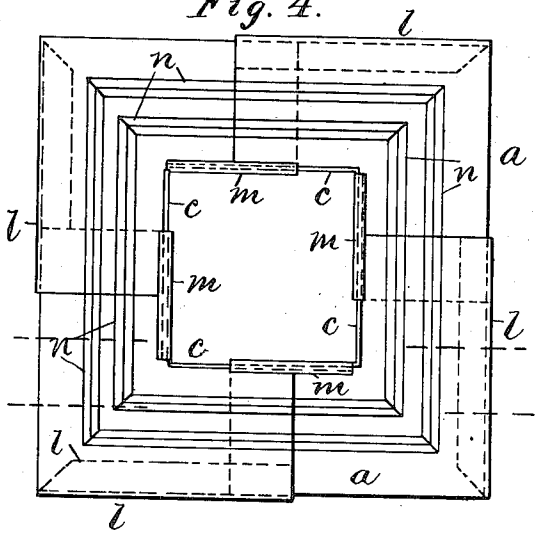


Fig. 2.

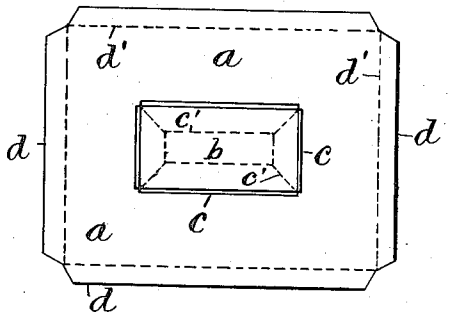


Fig. 5.

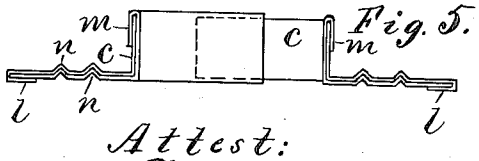
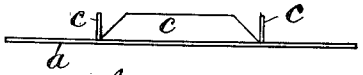


Fig. 3.



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James White, per
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UNITED STATES PATENT OFFICE.

JAMES WHITE, OF BROOKLYN, ASSIGNOR TO THE TWIST PIPE COMPANY, OF NEW YORK, N. Y.

FLASHING FOR WALLS AND CHIMNEYS.

SPECIFICATION forming part of Letters Patent No. 423,888, dated March 18, 1890.

Application filed July 15, 1889. Serial No. 317,573. (No model.)

To all whom it may concern:

Be it known that I, JAMES WHITE, a citizen of the United States, residing at Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Flashings for Walls and Chimneys; fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is to furnish a more effective flashing for preventing the penetration of water into buildings through the brick-work projecting above the roof, and the improvement is adapted for application to either chimneys or partition-walls extended above the roof. In many cases where the flashing outside of the chimney has been considered defective and water has been found upon the outer side of the chimney below the roof, I have found that the water has entered the interior of the chimney from the top and has penetrated through the brick-work below the roof to the outer side of the chimney-walls. Such penetration of the walls by water is common in all brick constructions, as the bricks and mortar are often very porous, and the flashing in my construction is therefore intended to intercept the water that may run down upon either side of the wall and prevent its transmission to the wall at any point below the flashing.

The invention consists in a metallic plate extended completely through the brick wall and having its edges bent in a suitable manner to direct the water to the desired point. In the case of a fire-wall, or other brick partition, extended above the roof the edges of the flashing would be bent downward upon both sides of the wall, and the brick-work below such flashing would thus be protected from the water over its entire upper surface. In the case of a chimney the entire chimney-walls would be intersected in a similar manner by a metallic plate and their upper surfaces wholly protected from moisture and the inner edge of the flashing would be bent upward to intercept any water that might run down the interior of the chimney-wall and to direct such moisture outward to discharge it from the outer edge of the flashing.

The invention also consists in means for tying the wall above the flashing to the wall below the same, and in a chimney-flashing, with adjustable joints, adapted to fit chimneys of different sizes.

In the annexed drawings, Figure 1 is a vertical section at the center line of a chimney, with a line indicating the top of the roof. Fig. 2 is a plan of a solid chimney flashing-plate. Fig. 3 is an edge view of the same plate. Fig. 4 is a plan of an adjustable chimney-plate, and Fig. 5 a section of the same on line $x\,x$ in Fig. 4. Fig. 6 shows the blank for the tie-piece, with dotted lines indicating where its ends would be bent; and Fig. 7, the tie-piece with the ends bent. Fig. 8 is a section of a fire-wall, with portion of the roof, and the flashing applied thereto. Fig. 9 represents the blank for the flashing, with dotted lines showing where the edges would be bent; and Fig. 10 is an edge view of the wall-flashing with bent edges.

In Figs. 2 and 3 a is the chimney-plate, having aperture b in the center, in which aperture the metal would be cut, as indicated by the dotted lines $c'\,c'$, and bent upward to form flanges c. The corners of the plate are clipped, and dotted lines d', near the edges of the plate, show where the edges would be bent into flanges lettered d in Fig. 1. In Fig. 1 the chimney-walls e are shown wholly divided by such plate adjacent to the roof with the flanges c bent upward in close contact with the inner sides of the walls, and the outer edges of the plate bent downward to form flanges d against the outside of the walls e. The intersection of the wall by the plate wholly prevents the access of moisture to the wall above the roof at any point below the plate, as the outside flange throws off the water which runs down the outer side of the chimney, and the inner flanges c intercept any water that may gain access to the interior of the chimney and throws such water outward toward the flanges d.

To prevent the displacement of the walls above the chimney or their overturning by the wind, ties f, made of flat plates or sheet metal, are inserted within the chimney-walls transverse to the flanges c, and are provided with bent ends g, inserted within the bricks above and below the plate a, thus locking the

portions of the chimney-wall together above and below the dividing-plate.

To prevent the displacement of the brick-work upon the flashing-plate, the latter may be roughened by corrugation, as shown in Fig. 5, where a chimney-flashing is represented with four corner-sections locked together with movable joints, and thus adapted for expansion or adjustment to fit chimneys varying within a certain range of size. Each corner-section is formed with an inwardly-bent flange *l* along one of its sides, adapted to embrace the edge of the adjacent corner-section, and one side of the upturned flange *c* upon each corner-section is provided at its upper edge with a downwardly-bent flange *m*, adapted to lap over the flange *c* upon the adjacent section. The four sections are thus locked together with movable joints at both their outer and inner edges, and may be slid upon one another to suit the dimensions of any chimney within the range of movement for which the sections are adapted. The chimney-plate itself in Figs. 4 and 5 is shown corrugated or provided with two ribs *n*, bent in the plate parallel with the edges, for the purpose of engaging the mortar used in laying the brick, and thus locking the brick wall to the plate as far as possible. Similar corrugations (or indentations of other shapes to effect the same object) may be formed in the solid plate shown in Fig. 2, as stated above.

It is obvious that the chimney-plate may be made in two sections instead of four, united by flanged or slip joints in a similar manner.

By means of the downwardly-bent flange *m* the water that may run down inside the chimney-walls is prevented from entering the slip-joint between the flanges, and is deflected upon the flat portion of the plate, where it can only escape outward.

The outer edges of the entire adjustable plate may be bent downward outside the walls below the plate, if desired, in which case the corners of the sections could be clipped off, as shown in Fig. 2, to facilitate the bending of the four corners in different directions.

Fig. 6 shows that the ties used to lock the walls of the chimney together above and below the flashing-plate are formed simply of flat pieces of sheet metal, which thus offer no sensible obstruction to the channel within the chimney, as is plainly shown in the view in Fig. 1. Similar ties may be used in the case of a fire-wall, although the same are not shown in the drawings, in which Fig. 8 shows a fire-wall *p*, projected above the roof *q* and having a flashing-plate *r* extended entirely through the wall with both its projecting edges bent downward into flanges *s*. Such flashing-plate operates to wholly cover the brick-work above the top of the roof and to prevent the penetration below the roof of any moisture that may penetrate the wall at any point whatever above the flashing-plate. The plate itself, as shown in Figs. 9 and 10, consists merely in a long strip of sheet metal with the edges bent in the same direction, and the flashing may be applied to the wall by forming the strip in pieces of convenient length, placing them upon the top of the wall when it is built to a certain level, and bending the edges downward after the remainder of the wall has been built, or the sheet metal may be bent into channel form before it is applied to the wall. In a wall exceeding the length of the metallic strip several strips would be used by lapping their ends upon one another to prevent the passage of moisture through the same.

Having thus set forth my invention, what I claim herein is—

1. The combination, with a brick wall, of a flashing-plate extended entirely through the same, and having its opposite edges projected outside the wall and suitably bent to prevent the penetration of moisture below the plate, substantially as herein set forth.

2. The combination, with the walls of a chimney, of a flashing-plate entirely intersecting the walls, and having its inner edges bent upwardly within the chimney, as and for the purpose set forth.

3. The combination, with the walls of a chimney, of a flashing-plate entirely intersecting the walls, and having its inner edges bent upwardly within the chimney and its outer edges bent downwardly outside the same, as and for the purpose set forth.

4. An adjustable flashing-plate for chimneys, consisting in several sections united by slip-joints and adapted to wholly intersect the chimney-walls, as and for the purpose set forth.

5. An adjustable flashing-plate for chimneys, formed in several sections adapted to wholly intersect the chimney-walls, the several sections being united by slip-joints and each section having an upturned flange upon its inner edge to fit inside such walls, as and for the purpose set forth.

6. The adjustable flashing-plate for chimneys, consisting in the four corner-sections united by slip-joints and having each the flange *c* bent upwardly upon its inner edge, and the junction of the said flanges *c* being provided with the downwardly-bent edges *m*, adapted to keep the water out of the slip-joint between the flanges, as and for the purpose set forth.

7. The combination, with a brick wall, of a flashing-plate extended through the same and provided with indentations, (as corrugations,) as described, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JAMES WHITE.

Witnesses;
R. J. SLANDORFF,
J. B. DAVENPORT.