

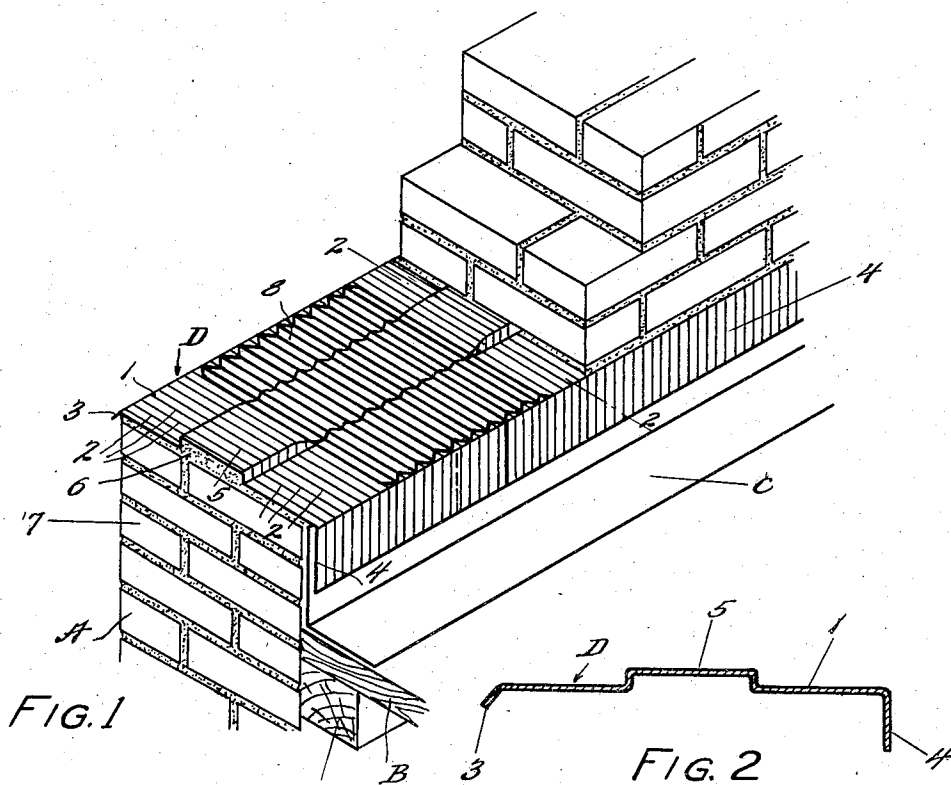
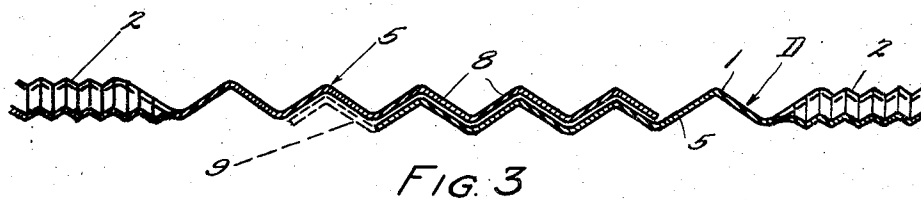
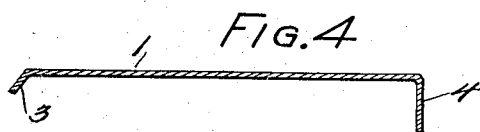
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METAL FLASHING

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METAL FLASHING

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3 Claims. (Cl. 72-127)

Generically this invention relates to flashing, but it more especially is directed to the type adapted for parapets, and party or other walls in building construction.

5 One of the principal objects of this invention is the provision of a flashing for use as a watershed between courses of masonry, constructed of sheet copper or other metal, so formed as to absorb the expansion and contraction of the sheet due to changes in temperature, to increase the bond between the flashing and the masonry, and also adapted to absorb the internal stresses caused in the sheet by the various forming operations incidental to the manufacture of the flash-
15 ing.

Another important object of this invention is to so form the ends of the flashing pieces that they may be adjustably lapped in accordance with the length of the wall, so as to not only lock the sections in position and direct the water to the sides of the wall but in such a manner that water can not infiltrate between the lapped portions. The said flashing may be additionally formed to provide a longitudinal raised stiffening member, which stiffening effect is of advantage in handling and shipping the flashing pieces.

A further important object of this invention is to make the flashing in long or short sections so constructed at each end as to permit adjustments of the sections for the length of the party wall thereby removing the necessity of cutting the sections when being operatively positioned as the wall is constructed, each section being additionally transversely crimped over its entire
30 length to prevent the shearing of the mortar joint by the expansion and contraction of the metal and with special reference to copper and aluminum, which have considerable expansion.

With these and other objects in view, which
40 will become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawing, in which like
45 characters of reference indicate like parts throughout the several figures, of which:

Fig. 1 is a perspective view of a wall showing overlapped sections of the flashing in position.

Fig. 2 is a cross section taken on the line 2-2
50 of Fig. 1.

Fig. 3 is an enlarged fragmentary longitudinal sectional view showing the ends in lapped and interlocked relation.

Fig. 4 is a view similar to Fig. 2 of a slightly
55 different form without the stiffening member.

Difficulty has heretofore been experienced in flashing for parapets and wall construction where the same extends through the entire width of the wall, to properly lock the same in position and to prevent seepage of water at the meeting ends of the sections, and to prevent disintegration of the wall structure adjacent to the contiguous surface of the flashing by reason of expansion and contraction of the material caused by varying temperatures, and it was to overcome such deficiencies and to provide a flashing preferably constructed of copper, formed with or without a central longitudinal stiffening rib and formed at the ends of each section with laterally extending corrugations or ridges so that the ends may be overlapped and adjusted with respect to the length of the wall in which the flashing is used, the corrugations being of such dimensions that water can not infiltrate between the lapped sections, these ridges or corrugations extending the entire width of the wall and are adapted to divert any water from the wall above the flashing to the outside edges thereof, said water being further directed from the faces of the wall by the depending apron-like edges, the body of the flashing sheet being further formed throughout its length with a plurality of transverse smaller crimp-like ribs which tend to increase the bond between the flashing and the mortar of the masonry to absorb the expansion and contraction of the copper sheets and prevent shearing of the mortar joint by reason of temperature changes, that I designed the flashing forming the subject matter of this invention.

In the illustrated embodiment characterizing
35 this invention there is shown a wall construction A, portion of roof construction B, bottom or base flashing C, and my improved wall flashing D.

In the present instance the wall A is shown with an adjoining roof construction B and the flashing D is placed in the wall at a point spaced above said roof section so as to prevent the seepage of water through the wall below said flashing and to direct water entering the wall above same to said roof and away from the wall on its opposite side, as will directly more fully appear.
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The flashing D is formed of a plurality of sections 1, each preferably about four feet in length, though of course the length may be varied according to structural requirements. Each of said sections is crimped or formed substantially throughout its length with small transverse corrugations 2 approximately $\frac{1}{8}$ of an inch deep extending the full width of the flashing. Since the
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sections 1 are identical, for the purposes of description, only one will be described in detail.

Section 1 in the present instance is formed at one edge of the wall with a turned down portion 3 adapted to direct the water away from the outer surface of wall A, and at the opposite edge of said wall with a wider turned down edge 4 constituting a cap portion adapted to overlie the lower or base flashing C which extends upwardly adjacent the wall A and overlies the roof B, and which is suitably secured in position and adapted to prevent water entering the jointure of the roof and wall as will be well understood.

Section 1 is preferably formed with a longitudinal raised stiffening section 5 adapted to prevent bending and distortion of the section during shipment and handling, thereby saving time and labor in reshaping before adjustably embedding in mortar 6 to maintain the flashing in position in the brick or masonry structure 7, as will be clear without further discussion.

While as above stated, the flashing sections may be formed with a longitudinal raised stiffening section, said flashing will efficiently function for the purposes intended without said raised section, which may be modified or completely dispensed with, as clearly shown in Fig. 4 of the drawing. Each end of section 1 is formed with relatively large or heavy corrugations 8 approximately $\frac{1}{8}$ of an inch deep extending transversely throughout the width of the section and rearwardly from each end a sufficient distance to give the desired adjustability of the meeting ends of the overlapped pieces of flashing in accordance with the particular requirements. The manner of adjusting the sections in accordance with different wall lengths is clearly shown in dotted lines as at 9 in Fig. 3 of the drawing. While in the present instance the corrugations 8 are referred to as $\frac{1}{8}$ of an inch deep it is evident that their size may be increased or decreased according to wall dimensions and operating requirements.

It will thus be apparent that when the sections 1 are placed in interlocking and overlapping relation at a desired point in a wall structure no water entering the wall above the flashing can reach or seep through to the section below the flashing, and that by reason of the corrugated formation and particular construction of the composite flashing D damage to said structure by expansion and contraction due to temperature changes is overcome and a leak proof flashing structure effected.

It is further apparent that by virtue of the small crimping completely across and substantially throughout the length of each section, shearing of the mortar bond by movement of the otherwise smooth surface metal by expansion and contraction thereof is prevented, and by the further reason of the opposite depending apron-like edges overlying the outer wall surface the relative movement of the flashing and wall structure is prevented and a nonleak watershed between the courses of the masonry effected.

It is further apparent that I have designed a flashing simple in construction, easily installable and adjustably adaptable to walls of different lengths, manufacturable at a minimum of cost and efficient for the purposes intended.

Although in practice I have found that the form of my invention illustrated in the accompanying drawing and referred to in the above description as the preferred embodiment, is the most efficient and practical; yet realizing the conditions concurrent with the adoption of my in-

vention will necessarily vary, I desire to emphasize that various minor changes in details of construction, proportion and arrangement of parts, may be resorted to within the scope of the appended claims without departing from or sacrificing any of the principles of the invention.

Having thus described my invention, what I desire protected by Letters Patent is as set forth in the following claims:

1. A flashing for insertion between layers of masonry and the like consisting of a plurality of metal sheets extending throughout the width of the masonry wall, transverse corrugations formed on the meeting ends of the sheets for overlapping and interlocking engagement of a length corresponding to the width of the wall and of a substantial height to form leak proof joints and permitting longitudinal adjustment of said sheets with respect to each other, the remaining surface area of said sheets intermediate said corrugated areas being formed with smaller corrugations extending the full width of the sheets and in parallelism with said first mentioned corrugations and adapted to form a bond with said masonry and to absorb the expansion and contraction of said sheets due to temperature changes, said sheets being longitudinally bent adjacent their side edges to form depending portions at the edges of the wall faces, whereby uniform expansion and contraction throughout the corrugated areas within said wall is effected and relative movement of the flashing sheets and damage to said bond is prevented and a centrally disposed longitudinally extending stiffening ridge coextensive with the small corrugations and similarly corrugated to form vertical locking elements extending at an angle with respect to the first mentioned small corrugations.

2. A flashing for walls or the like, comprising a plurality of metal sheets which when applied extend lengthwise of the wall, each sheet being formed with its opposed edges bent downwardly at the opposite sides of the wall, and formed adjacent each end intermediate the turned down portions with transverse corrugations of a predetermined size for adjustable overlapping and interlocking engagement with the ends of adjacent sheets, the surface area of each sheet intermediate said end corrugations and including said turned down portions being formed with transverse corrugations of less size than said first mentioned corrugations and extending in parallelism with respect to the latter, whereby uniform expansion and contraction of the respective corrugated areas of the latter sheets throughout the thickness of the wall due to temperature changes is absorbed and interlocking of the sheets and prevention of the infiltration of water between the lapped ends is effected and a longitudinally extending stiffening ridge co-extensive with the small corrugations and similarly corrugated to form vertical locking elements extending at an angle with respect to said first mentioned small corrugations.

3. A flashing adapted to be embedded in a layer of mortar or the like and comprising a strip of sheet metal having a finely corrugated midportion adapted to bond the strip to the mortar or the like, coarsely corrugated end portions, and a finely corrugated ridge portion extending longitudinally of said midportion and supplementing the bonding action of the latter in a plane at an angle with respect to said midportion.