Oct. 13, 1925. 1,557,481

M. J. N. SCHNEIDER

FLASHING

Filed April 28, 1924

Fig. 1

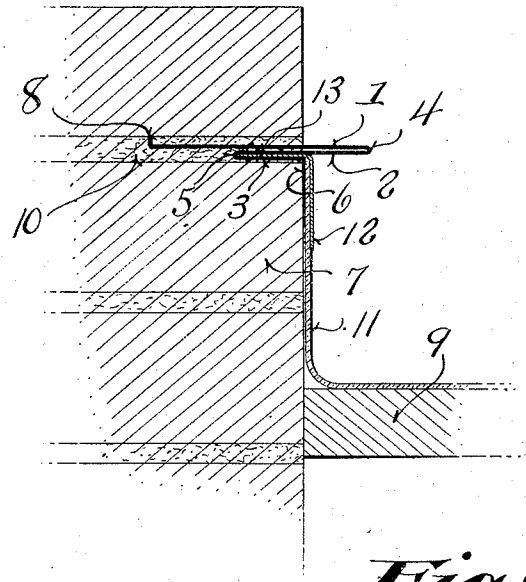


Fig. 2

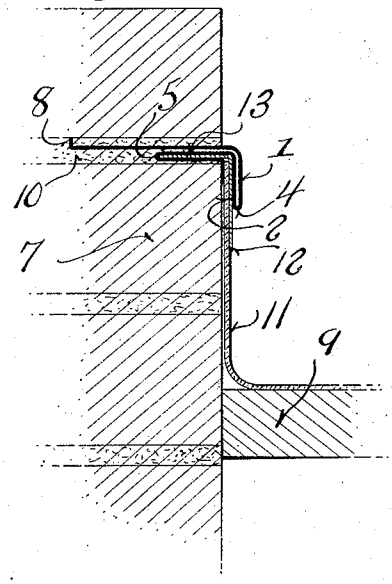


Fig. 3

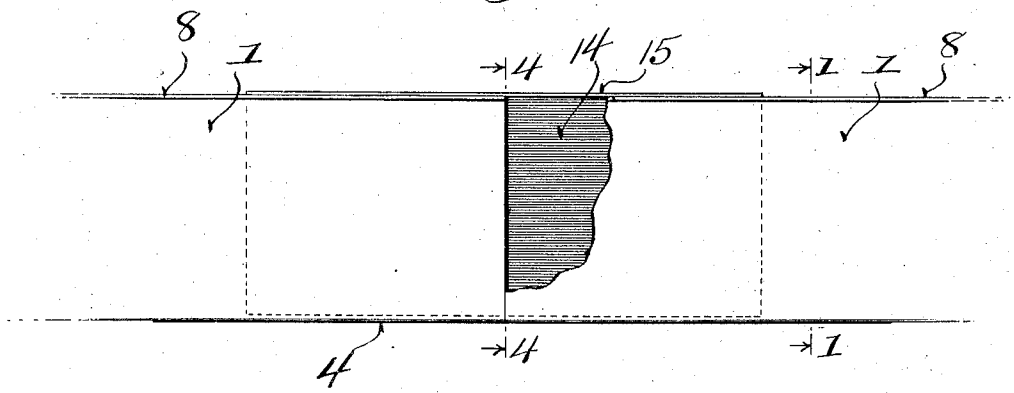
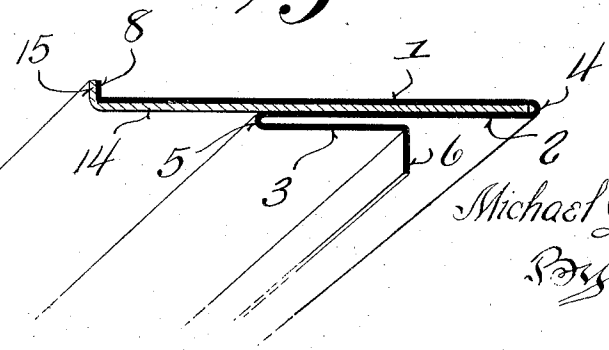


Fig. 4



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UNITED STATES PATENT OFFICE.

MICHAEL J. N. SCHNEIDER, OF MILWAUKEE, WISCONSIN.

FLASHING.

Application filed April 28, 1924. Serial No. 709,581.

To all whom it may concern:

Be it known that I, MICHAEL J. N. SCHNEIDER, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Flashings; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to flashing.

In flashings as heretofore constructed, difficulty has been experienced, due on the one hand to the excessive amount of skillful work required in the application of the flashing, and on the other hand due to the fact that the flashing was not absolutely waterproof, but when expansion or contraction of the roof relative to the wall occurred, such flashing would pull loose and permit water to enter.

Further than this, it was frequently the case that the flashing required special tools and skillful workmen and an inordinate amount of time for its application thus precluding its use in the majority of cases.

This invention is designed to overcome the above defects, and objects of such invention are to provide a flashing which is absolutely waterproof, in which expansion or contraction of the roof will not open the flashing, and which requires a small amount of material and no calking whatsoever in its application.

Further objects are to provide a flashing which may be most readily applied to a wall, chimney or similar member during the construction thereof, which will not cut or injure the workmen, which even in its initial stage of application, does not project outwardly a material distance and interfere with the free working of the wall, and which may be easily handled in suitable length units.

Further objects are to provide a flashing which is so constructed that the individual units thereof, although of material length, are rigid and will not flex or fold transversely, which is provided with a prominent counter flashing receiving groove, in which the grooves of successive elements are maintained in alignment at all times, and which is so constructed that when the roof is to be repaired the flashing may be readily manipulated without disturbing its setting in the wall.

Further objects are to provide a flashing which is securely anchored in the wall, and which, although the masonry may slightly loosen, will nevertheless, prevent water from running over and under the flashing in the parts set in the wall or, in fact, in the projecting part, which is of neat and finished appearance, which requires a minimum amount of material and may be cheaply produced, and which may be set in a wall during the construction thereof in a simple and easy manner, or may be applied to a previously constructed wall with a minimum of work.

An embodiment of the invention is shown in the accompanying drawings, in which:—

Figure 1 is a sectional view through a wall and a portion of the roof showing the flashing in one stage of application, such view corresponding to a section on the line 1—1 of Figure 3.

Figure 2 is a corresponding view showing the flashing as it appears when in finished condition.

Figure 3 is a plan view of a joint between successive elements of the flashing.

Figure 4 is an enlarged section on the line 4—4 of Figure 3.

Throughout the specification and the claims, the term wall will be used to designate what is commonly known as a wall or a chimney, for instance, a masonry partition, or in fact any similar member.

The flashing comprises a main member of sheet metal which is provided with an upper portion 1, an intermediate portion 2, and a lower portion 3. These portions are arranged in superposed relation by folds 4 and 5. The bottom portion 3 terminates short of the outer end of the projecting parts 1 and 2, as may be seen from Figure 1, and is provided with a downwardly projecting positioning flange 6 which is adapted to abut against the face of the wall 7. The top plate 1 is provided with an upstanding anchoring and leak preventing flange 8.

In applying the flashing, one or two courses of masonry are built above the roof 9, as shown in Figure 1 and some mortar 10 positioned upon the upper portion of the partially formed wall. Thereafter, the main member is laid in position with the positioning flange 6 in contact with the outer face of the wall, more mortar is then placed in the joint in the wall, and the wall is then continued upwardly, as shown in Figure 1.

It is to be noted that even in this partially completed state, the projecting portion of the flashing will not cut or injure the workmen or in any way hinder their free working around the wall. It is provided with a rounded smooth outer edge which will not, as stated, damage the workmen. It is also relatively stiff and will not be distorted by even severe usage.

When the roofing material 11 is positioned it is folded upwardly as shown in Figure 1, and a counter flashing consisting of an angle shaped sheet metal member is employed at this stage. This counter flashing consists of an apron portion 12 adapted to contact with the outer face of the roofing material 11, and of an inwardly extending marginal flange 13 which fits within the groove formed between the members 2 and 3 of the main member.

It is to be particularly noted that this counter flashing may most readily be slipped into position into the outwardly opened groove so that no alteration of the masonry joint is required for its application.

After the counter flashing has been positioned the overhanging portion of the main member is folded downwardly over the apron portion 12 of the counter flashing, as shown in Figure 2; this locks the counter flashing in position and completes the joint. These flashing members are made up in units of suitable length and may, if desired, be of considerable length without danger of bending or crinkling in handling, for the reason that the marginal flanges formed on both the main flashing member and counter flashing, reenforce the units against transverse folding and thus secure very rigid and easily handled units. Where the wall is of considerable extent and it is necessary to employ a plurality of units, a splicing or aligning sheet or strip 14 is employed, as shown in Figures 3 and 4. This aligning strip or plate is slipped into the inwardly opening groove formed between the members 1 and 2, and thus holds the counter flashing receiving grooves of successive members in accurate alignment. These splicing plates may be provided with an upstanding rear flange 15, as shown in Figures 3 and 4, to secure the utmost stiffness and permit relatively rough handling as well as to complete the anchoring flange 8 and prevent any gap in such flange, thus maintaining the continuity of the anchor and leak preventing flange, however crudely the main member may be set in the wall.

It is to be noted that the inner and outer fold 5 and 4, respectively, of the main member provide a stiffening or reenforcing feature for the flashing and prevent the complete closing of the counter flashing receiving groove formed between the members 2 and 3 even if the workmen are careless in forcing successive tiers of the wall downwardly. There is sufficient spring in the main member when constructed in accordance with the disclosure of this invention to insure at all times the free entry of the marginal flange 13 of the counter flashing.

In the practise of this invention, the main member and the counter flashing may be formed of any suitable sheet material, such for instance as copper.

It is further to be noted that if for any reason it becomes necessary to remove a portion of the roof, the projecting downwardly folded portion of the main flashing may be readily opened up into the position shown in Figure 1, thus permitting the removal of the counter flashing. After the new roofing has been positioned, the counter flashing may be again positioned and the projecting portion of the main member may be folded down into its finished position. It is seen, therefore, that the joint in the wall is never disturbed after the flashing has once been positioned.

It is to be noted that the anchoring and leak preventing flange 8 securely locks the flashing in position in the joint in the wall. It is further to be noted that even if this joint should crack in places and slightly loosen from the flange that any water following along this crack will be stopped by the upstanding flange 8 and leaking even under this extreme condition will be prevented.

It is also to be noted that no discomfort, hindrance or danger is caused the workman when completing a wall within which this flashing has been positioned, for, as stated, even in its partially complete stage, as shown in Figure 1, the projecting portion has a round smooth edge and will not damage the workmen. Also this projecting portion extends outwardly only a relatively short distance and does not hinder the free working of the wall.

It is also to be noted that by means of the aligning or splicing plates 14 and by means of the positioning flange 6, that unskilled labor may be employed when positioning this flashing. The positioning flange 6 permits the workmen to merely slide the main member inwardly until the positioning flange contacts with the outer face of the wall, thus accurately positioning the main member at the required distance with reference to the wall face. The aligning or splicing plates 14 maintain successive elements of the flashing in absolute alignment.

It is to be noted that although the flashing accomplishes a number of heretofore impossible results with regard to durability, as of position and application, freedom from leaking and freedom from danger to the workmen that, nevertheless, this flashing

may be constructed in an extremely simple manner and that it also needs or requires a minimum amount of material. Thus it may be most cheaply manufactured and rapidly produced.

It is further to be noted that any expansion or contraction of the roof with reference to the wall will not pull the flashing loose and will not crack the mortar joint. The portions of the flashing will give slightly under excessive stresses and a rupture or opening of the flashing is wholly prevented even under the most disadvantageous conditions.

It is similarly to be noted that in its finished condition, the flashing presents a reenforced outer portion due to the double thickness of the downwardly turned part formed of the members 1 and 2, as shown in Figure 2, and that such flashing will not be readily disturbed or injured.

Although the invention has been described in considerable detail, it is to be understood that the invention may be variously embodied and is, therefore, to be limited only as claimed.

I claim:

1. A flashing comprising sheet metal members having successive folds to provide an outwardly opening groove and an inwardly opening groove and having an outer marginal flange, aligning plates adapted to fit within the inner grooves of successive members, and counter flashing having an apron portion and a marginal flange adapted to fit in the outwardly opening groove.

2. A flashing comprising a sheet metal member adapted to be set in a wall and having an integral anchoring flange at its inner end and a projecting integral positioning flange at its outer end, said latter flange being adapted to contact with the outer face of a wall, said member having an outwardly opening groove and an inwardly opening groove, and having an outwardly projecting portion located above said outwardly opening groove, an aligning plate adapted to be positioned within said inwardly opening groove and having a rear flange adapted to contact with said anchoring flange, and a counter flashing having an apron portion and a marginal flange adapted to be positioned within said outwardly opening groove.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

MICHAEL J. N. SCHNEIDER.