Sept. 9, 1941. C. C. FIGGE 2,255,156

APPARATUS FOR MAKING FLASHING

Filed Feb. 13, 1937 2 Sheets-Sheet 1

Fig. 1.

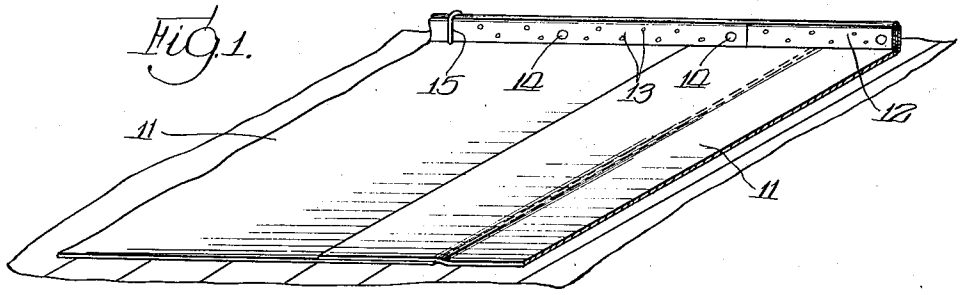


Fig. 2.

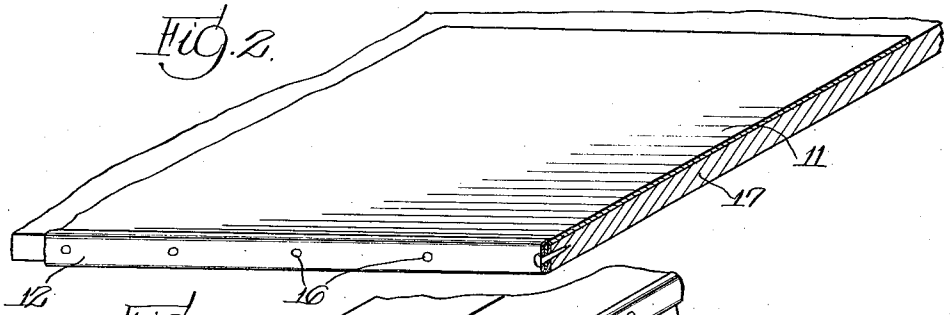


Fig. 3.

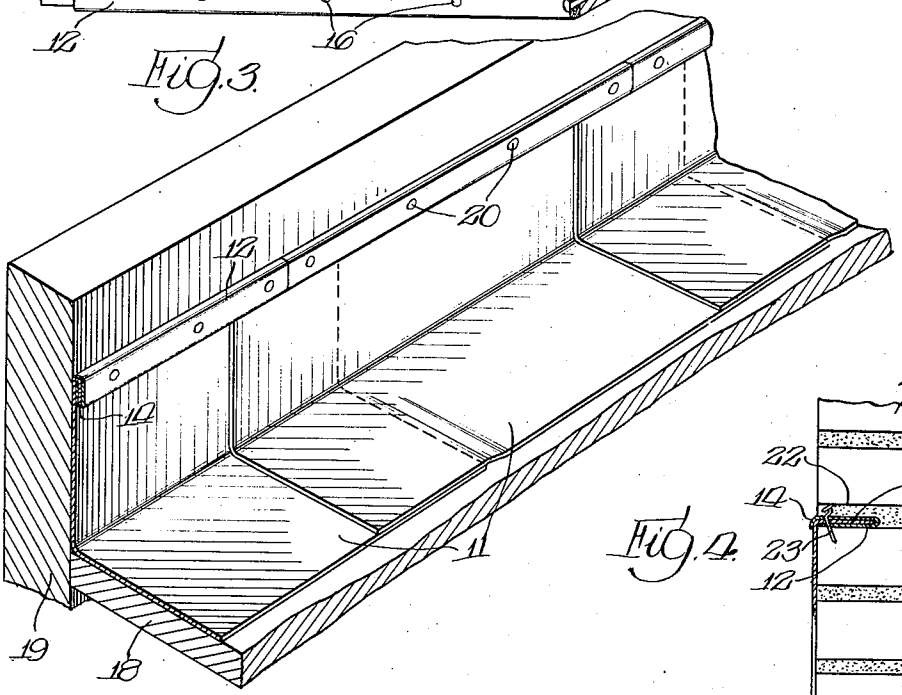


Fig. 4.

Inventor:
Carroll C. Figge,
By Kent W. Wonnell Atty.

Sept. 9, 1941. C. C. FIGGE 2,255,156

APPARATUS FOR MAKING FLASHING

Filed Feb. 13, 1937 2 Sheets-Sheet 2

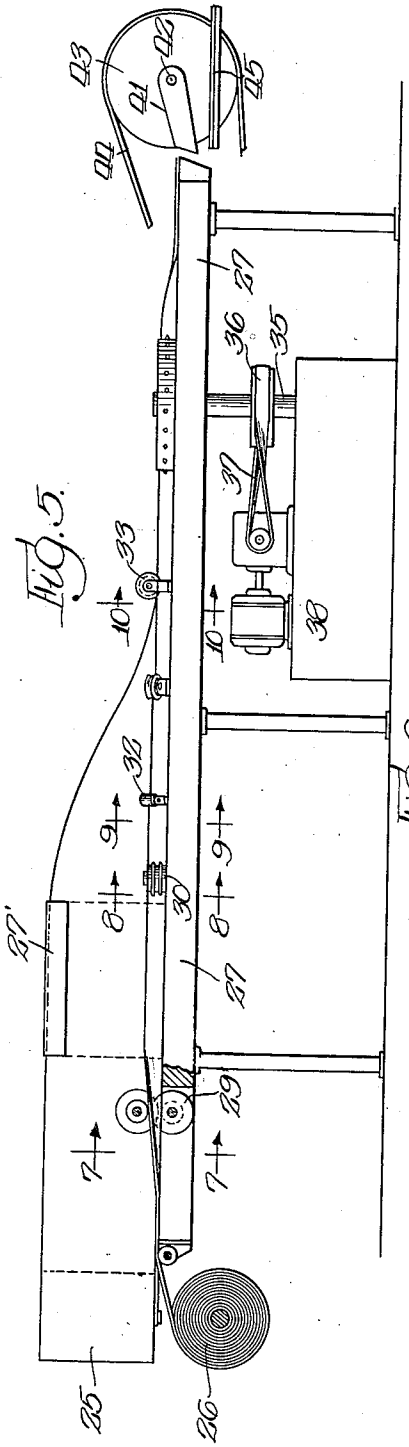


Fig. 5.

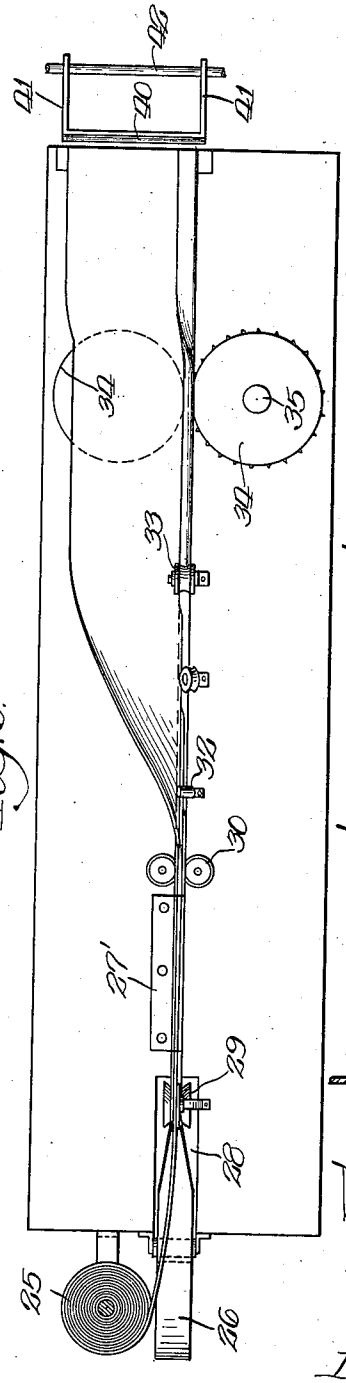


Fig. 6.

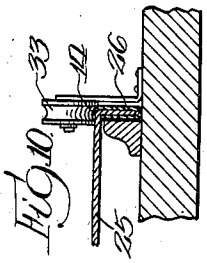


Fig. 10.

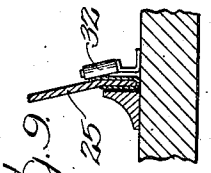


Fig. 9.

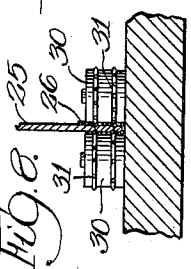


Fig. 8.

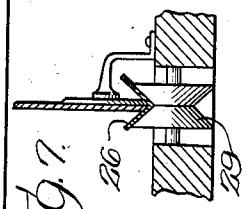


Fig. 7.

Inventor:-
Carroll C. Figge,
By Kent W. Wounall Atty.

Patented Sept. 9, 1941 2,255,156

UNITED STATES PATENT OFFICE

2,255,156

APPARATUS FOR MAKING FLASHING

Carroll C. Figge, Chicago, Ill.

Application February 13, 1937, Serial No. 125,578

1 Claim. (Cl. 153—2)

This invention relates to apparatus for making a roofing strip more particularly described as a flashing.

An important object of the invention is in the provision of a roofing piece which may be used in various ways as a flashing, as a finishing strip, and as a gravel stop.

A further object of the invention is in the provision of a roofing fabric which may be adhesively secured in place on a roof and also mechanically attached to a roof or to an adjacent wall by a suitable nailing strip.

A still further object of the invention is in the provision of a structure of this kind which can be made continuously and in the method and apparatus for producing the material in a continuous manner.

Other objects of the invention will appear hereinafter, the preferred construction and the method of making it being illustrated in the accompanying drawings in which—

Fig. 1 is a perspective representing the material when placed for use as a gravel stop.

Fig. 2 is a perspective with one edge in section of the material used as a finishing edge.

Fig. 3 is a perspective of the material used as a flashing nailed in place.

Fig. 4 is a sectional view illustrating a flashing with the nailing strip inserted in a brick raggle.

Fig. 5 is a side elevation, and

Fig. 6 is a top view of the apparatus for making the roof piece continuously and cutting it off in suitable lengths.

Figs. 7, 8, 9 and 10 are detail sectional views illustrating the operation of the apparatus, as taken on the lines 7—7, 8—8, 9—9 and 10—10, respectively, of Fig. 5.

In laying new roofs and in repairing old ones the edges of the roofing surface are the ones requiring the most careful attention for waterproofing. The long continuous strips of roofing material which are usually adhesively secured to the roof surface and to each other by a bituminous coating of tar or similar material are not easily applied in the corners and edges of the roof, and therefore an additional flashing or edging is provided which adheres to the roof and the strips usually applied but which may also be mechanically attached to the roof or an adjacent wall for providing an additional protection and water-proofing strip.

Referring now more particularly to the drawings, Figs. 1 to 4 illustrate a roofing piece in accordance with this invention which comprises a strip 11 of roofing fabric which may be felt, canvas or similar fabric usually having a bituminous impregnation or coating which renders it waterproof and causes it to adhere to other roofing material when a coating of tar or other adhesive material is applied thereto. This strip may also be made of very thin flexible metal such as copper, either alone or in combination with a thin strip of fabric to which it will also adhere when mopped in place with a tar coating.

At one edge of the strip 11 is secured a metal strip 12 which is folded over one edge of the strip 11 and clampingly gripped in place by small grooves or indentations 13 which are formed therein in making the material. The metal strip 12 is folded so that the portion engaging one face of the fabric 11 is longer than that at the other side and the longer side is inclined or turned to form a right angle to the edge thereof and thus interlocking the edge of the fabric and the nailing strip so that they are tightly secured together throughout their length.

In using this roofing strip the ends of adjacent pieces are overlapped as shown more clearly in Figs. 1 and 3. But as the amount of overlap may be varied by different uses and by different persons in applying the material, the nailing strip 12 and the fabric are made in a continuous strip. When the roofer wishes to produce any certain overlap he simply cuts off the nailing strip at the end to produce the desired overlap.

When applied as a gravel stop as shown in Fig. 1 the fabric 11 is laid upon the roofing so that the nailing strip 12 may be placed uprightly at the edge or at any portion of the roof and while the ordinary adhesive attachment of the strip 11 to a roof will cause the nailing strip 12 to be held in upright position it may be additionally secured by fastening nails 14 inserted through it or by a staple 15 applied over the top. When used as a finishing eave strip or edging as shown in Fig. 2 the nailing strip 12 may be turned downwardly and secured by nails 16 to the edge of a roof 17.

In using the material as a flashing for the edge of a roof a portion is applied to the roof 18 and a portion to the adjacent wall 19, usually by means of a bituminous adhesive, and the nailing strip 12 is attached directly to the wall by nails 20 at suitable intervals, the fabrics overlapping and the nailing strips abutting end to end to present a smooth and neat appearance. In this application the bent edge of the fabric is straightened out and the bent edge 14 of the

nailing strip additionally presses the fabric against the wall 19 when the fastening nails 20 are applied. Thus the flashing is firmly attached to the wall and if a bituminous coating is applied over the flashing which is the usual practice, a satisfactory water-proof joint and connection is obtained.

For installations of this flashing to a brick wall 21 as shown in Fig. 4, the nailing strip 12 is inserted in an opening 22 provided in the mortar joint between adjacent courses of brick, or if applied to an old wall the mortar is raked out forming a raggle into which the metal strip is inserted where it is secured in place by a nail 23 or other suitable fastening means extending through the nailing strip and into the mortar joint between bricks of the same course.

Thus this same roofing piece may be variously used and applied and the same strip material may be provided for all different uses.

In making these metal edge roofing strips a continuous method of applying the metal edge to a strip of roofing material is most advantageous and economical. As shown in Figs. 5 to 10 this method may be carried out in a continuous process by a simple mechanism and apparatus which feeds or draws continuous strips of material together applying one to the edge of the other.

As shown in Figs. 5 and 6, rolls of fabric 25 and metal 26 are mounted at the end of a support or table 27 so that the fabric strip is held in upright position by a holder 27 or at right angles to a guide 28 including a roller 29 which bends the edges of the metal strip to embrace the sides of the fabric strip as shown first in Fig. 7 and then the sides are clampingly gripped together against the edge of the fabric by rollers 30 having ridges or projections 31 which indent the metal strip and clampingly engage the fabric therebetween.

One side of the metal strip is made longer than the other as applied to the fabric so that as the materials are drawn along the longer side of the metal it is first engaged by an inclined roller 32 as shown in Fig. 9 which correspondingly inclines the fabric 25 until it reaches the roller 33 which produces the right angle bend 14 in the finished flashing and with the body of the fabric strip 25 at right angles to the attached metal strip 26.

For drawing the materials continuously together and crimping the metal edge in place there are opposite toothed rollers 34 which engage the opposite sides of the applied metal strip and may further indent or crimp the metal strip in place on the fabric. Either or both of these rollers 34 are mounted on shafts 35, each having a pulley 36 operated by a belt 37 or other suitable driving connection with a motor 38 or other source of power.

At the end of the table 27 is a cut off device consisting of a cutter bar 40 of greater length than the width of the fabric strip and carried by arms 41 at the ends which are mounted upon a rotary shaft 42. The shaft is driven by a pulley 43 connected by a belt 44 with the motor 38 or a similar source of power, and as the attached strips are advanced continuously over the end of the table 27 the cutter bar 40 severs suitable lengths 45 of the material for use as desired.

These lengths of flashing 45 may be packed or stacked with the edges at right angles to the fabric thus occupying but little more space than the flat material. The ends of the metal edging are the same length as the fabric and for overlapping the fabric the ends of the metal edging may be cut off by shears, a hatchet or other implements commonly used by roofers so that each roofer may determine the amount to be cut off by the amount of lap desired. With this apparatus it is apparent that the metal edged fabrics may be produced rapidly, continuously and inexpensively. The material produced is very strong and being continuously gripped at the edge it does not tend to loosen or tear out when nailed in place. Furthermore, in compressing the fabric between the metal edging, a firm nailing piece is provided which tends to hold nails in place preventing them from loosening when applied to hold a flashing in place. When the flashing is applied as shown in Fig. 3 the straightening of the edge with respect to the body of the fabric also causes the bent edge 14 to grip the fabric more firmly for holding it in place.

I claim:

In an apparatus for continuously making roof flashing from a roll of fabric, means for feeding a strip of roofing fabric at right angles to a strip of metal, means for bending the metal about the edge of the fabric with one side of the metal overlapping the fabric more than the other, means for bending the longer metal edge and the fabric and positioning them permanently at right angles to the metal enclosed edge, and a cutter for severing the attached strips in suitable lengths as the fabric is moved continuously.

CARROLL C. FIGGE.