Oct. 6, 1931. G. A. HOLMAN 1,825,732

ROOFING CLIP

Filed Sept. 7, 1927

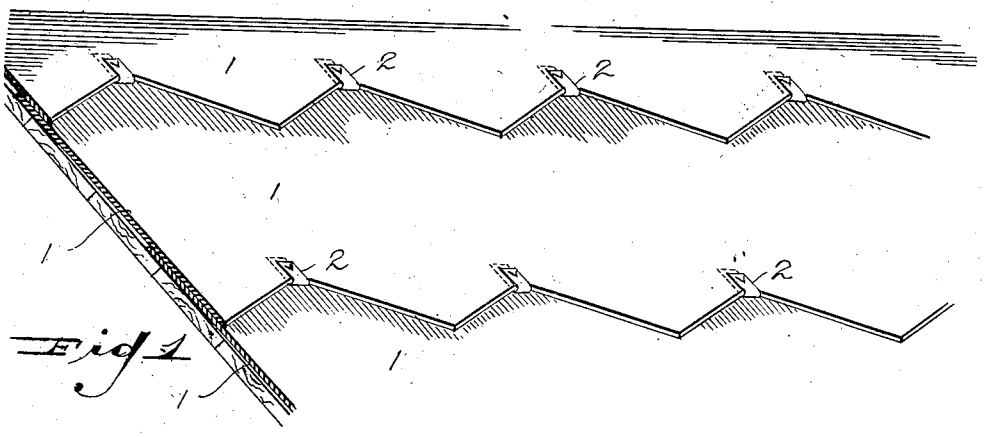


Fig. 1

Fig. 2

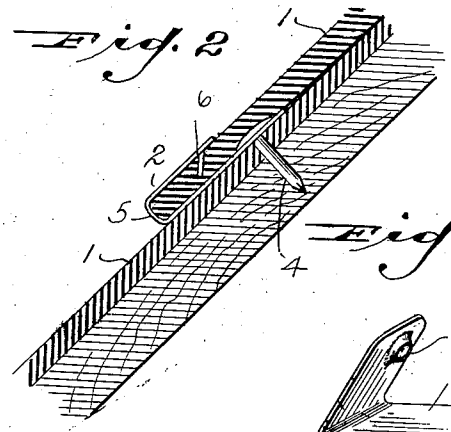


Fig. 3

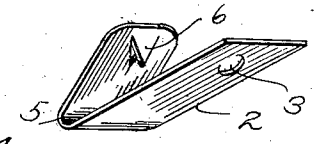


Fig. 4

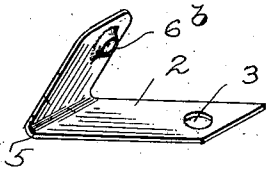


Fig. 5

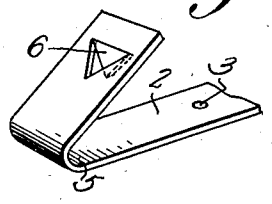
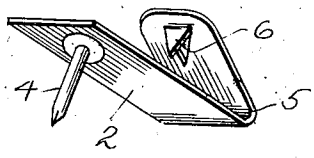


Fig. 6



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Patented Oct. 6, 1931

1,825,732

UNITED STATES PATENT OFFICE

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ROOFING CLIP

Application filed September 7, 1927. Serial No. 217,957.

My invention relates to roofing, and more particularly to an anchor clip or attachment member for securing sheet roofing.

While the present anchor clip or attachment member has been especially designed for applying scalloped or so called diamond point shingles of asphalt impregnated felt or analogous material, such fastening devices are also applicable to continuous strips or roll roofing. There are numerous forms of sheet roofing of different composition or material in both roll form and sectional or shingle form to which the present invention is applicable.

The clip or fastening member forming the subject matter hereof comprises a short strip of flexible non-corrosive material, preferably copper, zinc, aluminum or heavily galvanized iron, although other suitable rust resisting materials may be substituted therefor. One end of the strip is provided with a nail or with a hole through which a nail may be driven to secure the strip to the roof structure. This attached end of the anchor strip is then covered and concealed beneath the next section of roofing material, about the marginal edge of which the anchor strip is bent into a U or hook shaped form. The end of the anchor strip thus brought into overlapping relation with the superposed roofing sheet or shingle is provided with a projecting spur, formed by perforating the anchor strip to provide an inwardly projecting part which may be imbedded in the top surface of the attached roofing sheet, or shingle by a hammer blow. The material of such sheet roofing being of a plastic character, readily receives the spur or projection which does not entirely penetrate through such roofing sheet or shingle, but remains imbedded therein. The material of the roofing sheet or shingle becomes softened under influence of summer heat, thus relaxing the strain of the plastic roofing material closely adjacent to such spur and serving to seal the spur therein, permanently securing the anchor clip.

I am aware that heretofore sheet roofing has been attached by means of anchor hooks embracing the margin of the sheet with one end of the anchor hook nailed beneath such sheet. These prior devices, however, dependent upon the clamping effect of the hook shaped anchor clip, and do not involve any form of embedment or anchorage attachment to the superposed roofing sheet.

The object of the invention is to provide an anchor clip for sheet roofing which will be simple in construction, but efficient in operation, easily applied and unlikely to get out of repair.

A further and important feature of the invention is to provide an anchor clip to be bodily attached to the overlying roofing sheet as well as to the underlying roof structure.

A further object of the invention is to provide an anchor clip having anchor means thereon for embedment in a roofing sheet and further means for anchoring such clip to the roofing structure beneath the sheet.

With the above primary and other incidental objects in view, as will more fully appear in the specification the invention consists of the features of construction, the parts and combinations thereof, or their equivalents, as hereinafter described and set forth in the claims.

Referring to the accompanying drawings, wherein is shown the preferred, but obviously not necessarily the only forms of embodiment of the invention. Fig. 1 is a perspective view of a portion of a roof of sheet material, the overlapping sections of which are secured by the anchor strip forming the subject matter hereof. Fig. 2 is a vertical sectional view somewhat enlarged, showing the relation of the anchor clip to the superposed roofing sheets and the mode of attachment. Figs. 3, 4 and 5 are detail perspective views of the anchor clip before application to the roof, illustrating different forms of anchor projections for embedment in the superposed roofing sheet, wherein Figs. 3 and 5 are reverse views of the preferred form of clip, and Fig. 4 is a modification thereof. Fig. 6 illustrates a further modification, wherein the attachment nail is fixedly secured to the anchor clip before being driven into the roofing structure.

Like parts are indicated by similar char-

acters of reference throughout the several views.

In the accompanying drawings, 1—1 indicates superposed sheets or layers of roofing material. This material may be cut into small sections or "shingles" or may be laid in continuous strips. In the present instance the roofing sheet is shown marginally indented to form a succession of angular scallops. This illustrates a popular form of roofing sheet or shingle. The particular shape of the roofing sheet however is material. The anchor clips are preferably, though not necessarily, located within the indentations formed in the margin of the sheet or shingle. Such anchor clip comprises a short strip 2 of flexible rust resistant material, preferably, though not necessarily, copper zinc or zinc coated metal. One end of the strip 2 is provided with a perforation 3 through which may be driven an attachment nail 4 for securing the anchor clip to the roof structure. The superposed roofing sheet whether shingle or strip, is then laid in overlapping relation with the attached anchor strip 2 so that it completely covers and protects the nailed end. The free end of the anchor strip 2 is then bent upwardly and backwardly forming a bight 5 which embraces the margin of the superposed roofing sheet 1. The free end of the anchor strip 2 is provided with a spur 6 for embedment in the roofing sheet 1. This spur is a short angular tongue as shown at 6 in Figs. 2, 3 and 5 cut from the material of the anchor strip 2 and bent out of the plane thereof for embedment in the roofing sheet 1. In Fig. 4 there is shown a truncated conical barb 6*b* formed by perforating and indenting the anchor strip 2. The barb being centrally open, affords an annular edge which may be driven into the material of the roofing sheet 1. A portion of the roofing material displaced by compression under influence of the hammer blow is forced upward into the perforation resulting from the formation of the spur completely filling the same, and not only affording a further interlocking connection, but the perforation affords a relief vent for the roofing material under compression of the hammer blows, and when expanded by summer heat insures close conformity to the embedded spur. The preferred form of anchorage spur is shown in Figs. 3 and 5 wherein the anchor strip 2 is provided with a substantially triangular tongue formed from the material thereof without severing the tongue from the strip leaving in the strip an angular perforation having its apex directed toward the bend or bight 5 of the anchor member. Such anchor projection, whether it be in the form of a tongue, or a truncated conical barb, is of such extent that it will not penetrate through the roofing sheet, but will be embedded therein, by a hammer blow as the free end of the strip is bent reversely into overlapping relation with the superposed roofing sheet 1. As the plastic roofing material is warmed by summer heat it will settle about the embedded anchorage projection and serve to securely seal such attachment. While for economy of manufacture, strips are preferably formed with a perforation 3 to receive a separate nail, for special installation such nail may be secured to the underside of the strip by soldering, welding, or otherwise, whereby the clip and nail are integrally united prior to their application to the roof. Such construction is shown in Fig. 6.

By the construction shown and described the nails 4 are entirely covered and concealed, and are protected against moisture, thereby avoiding rust and corrosion, and at the same time by the embedment of the attachment spur or projection into the superposed roofing sheet, such sheet is securely tied to prevent its being raised by wind and the anchor clips cannot become loosened by expansion or contraction of either the sheet roofing or the material of such anchor member.

From the above description it will be apparent that there is thus provided a device of the character described, possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to structural features it is to be understood that the invention is not limited to the specific details shown, but that the means and construction herein disclosed comprises the preferred form of several modes of putting the invention into effect, and the invention is, therefore, claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described my invention I claim:

1. In a roofing clip of the character described, a flat strip of metal capable of being medially bent upon itself substantially to parallelism about the margin of a roofing sheet of the flexible type, one end of which is adapted to be engaged with the roof structure beneath the roofing sheet, the exposed end of the strip having therein a substantially triangular perforation in inwardly spaced relation with the terminal and lateral margins of the strip, the apex of which is directed longitudinally of the strip, and an integral spur comprising the material removed from said triangular perforation, said spur projecting angularly from the said plane of the strip a distance less than the thickness of the roofing sheet to be secured, and a flat bearing surface thereabout resting upon the roofing sheet, formed by the adjacent portion of said strip

intermediate said spur and the terminal and lateral margins of the strip said perforation being formed and disposed to receive therein the roofing material displaced by the hammer blows in driving the spur into engaging position.

2. An anchor clip for sheet roofing of the flexible type comprising a flat flexible strip of metal to be bent upon itself substantially to parallelism about the margin of a roofing sheet to be secured, one end of the strip being adapted for engagement with a roof structure beneath the sheet, the opposite end of the strip being perforated at a point in spaced relation with the end of the strip and an integral spur formed by the material removed from such perforation projecting from the strip a distance less than the thickness of the sheet in which it is to be embedded said perforation being formed and disposed to receive therein the roofing material displaced by the hammer blows in driving the spur into engaging position.

In testimony whereof, I have hereunto set my hand this 6th day of September, A. D. 1927.

GEORGE A. HOLMAN.