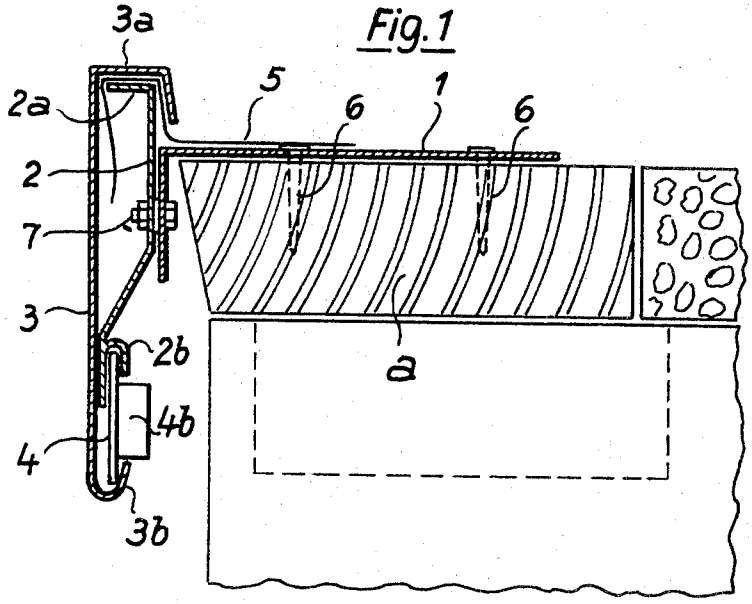
June 25, 1968 O. HELLEBRAND 3,389,515

EDGE SECTION FOR FLAT ROOFS WITH INTERNAL DRAINAGE

Filed Feb. 16, 1966

Fig. 1



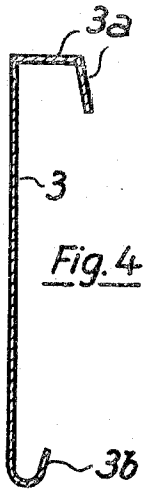


Fig. 4

Fig. 3a

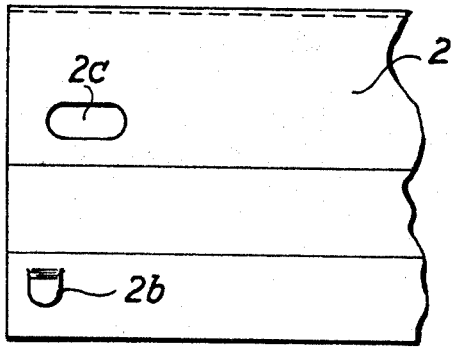
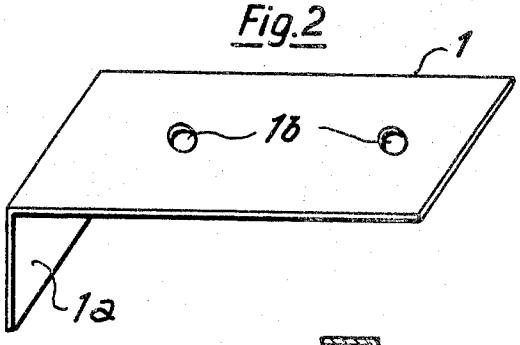


Fig. 2



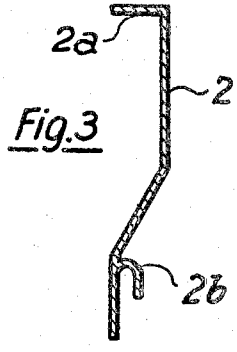


Fig. 3

Fig. 2a

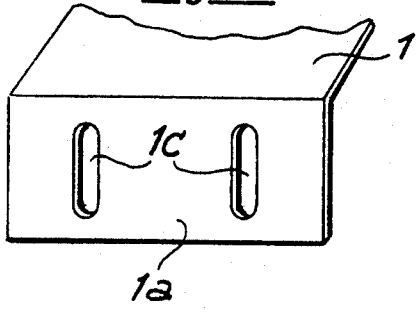
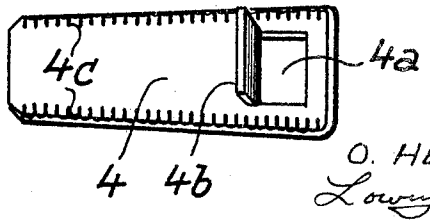


Fig. 5



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3,389,515

EDGE SECTION FOR FLAT ROOFS WITH INTERNAL DRAINAGE

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7 Claims. (Cl. 52—94)

ABSTRACT OF THE DISCLOSURE

An edge section for flat roofs having a covering sheeting wherein the said edge section includes a holding means and a covering means. The holding means has a first portion secured to the roof edge underneath the said sheeting which overlaps the roof edge and a second portion extending downwardly over the roof edge. The covering means has a first portion which is placed on top of said overhanging sheeting and overlaps the first portion of said holding means. The covering means further includes a second portion which extends downwardly and overlaps the second portion of said holding means. A wedging means is placed between the said second portions of said holding and covering means to cause said overlapping first portions to be forced together. In this way, the overhanging sheeting is firmly anchored in place at the roof edge between said holding and covering means.

This invention relates to an edge section for flat roofs with internal drainage, in which a multipart sectional body serves to engage and clampingly hold the free edge of the uppermost roof covering.

According to the invention, an edge section for flat roofs with internal drainage comprises a multipart sectional body for engaging and clampingly holding the free edge of the uppermost roof covering, said multipart sectional body including two sectional members for clamping therebetween the untrimmed end of the roof covering in crank fashion, and clamping members exerting a wedging action and connecting said two sectional members to form a unitary stable rail.

Edge sections for flat roofs with internal drainage have already become known in a great variety. However, all these sections do not meet the requirements which must be made as to the resistance of the sections to atmospheric corrosion. For example, when covering the outer free roofing felts or foil edges with zinc plates or angles, the penetration of moisture between the roofing felt, the wooden boards and/or the lower layers cannot be prevented. Furthermore, in the long run the different coefficients of expansion of the flexible and rigid materials here to be connected have a disadvantageous effect. It has also already been suggested to secure the outer ends of the roofing felt or plastic foils with clamping strips fastenable with screws. However, also this measure results necessarily in a weakening of the roofing felts or foil edges and especially renders repair works which have become necessary more difficult. It is further known to insert the outer edges of the roofing felt in edge sections which are provided with oblique slots and the anchor them in this position by means of a pourable compound.

This known method requires a great expenditure of work and cannot be applied e.g. to plastic foils. Also in this case repair works which may have become necessary are difficult to carry out.

A further suggestion, namely to clampingly fasten the end of the roof covering by means of resilient covering sections, has not proved satisfactory in practice. Such a resilient covering section must necessarily be bent apart when it is being mounted and consequently has an insufficient clamping power in its end position. It can

neither hold the end of a plastic foil in tensioned condition nor ensure a firm connection with the supporting section. In addition, when applying this known method, the ends of the roof covering are merely bent at right angles and may slip out of the covering section when shrinkage of the material occurs. Moreover, the free edges of the roof covering to be clamped must be accurately cut prior to fixing them, which requires a great expenditure of work.

Contrary to the known constructions, according to the present invention, the end of the roof covering will be pressed by means of a rectangular edge of the supporting section into an offset top edge of the covering section and thereby necessarily assumes the form of crankshaft. This measure permits to obtain a positive hold of the roofing felt or the plastic foil both in the case of heavy mechanical stresses and in the case of other stresses.

The different thickness of the individual and double layers of the roof covering, as occurring e.g. in the region of the overlaps, are taken into account in that wedge-shaped plates inserted at short distances apart meet the requirement for varying contact pressures. Also, it is immaterial in the device as proposed by the invention that the clamped edges of the ends of the roof covering extend uniformly since the untrimmed edges come to lie between the two sectional members so as to be invisible from outside.

Furthermore, the manner of wedging is so chosen that it is neither visible from the front nor from above and converts the connected covering section and supporting section over their total lengths into a unitary stable rail which necessarily forms a straight line. Moreover, contrary to all known forms of construction, the construction as proposed by the invention consists of rolled sectional members whereby also a reduction of the thickness of the material and thus a more favorable price level is achieved without influencing the required stability in a negative sense.

Brief description of the drawings

One embodiment of the invention will now be described by way of example and with reference to the accompanying drawing, in which:

FIG. 1 is a sectional view of an edge section according to the invention arranged on a flat roof;

FIG. 2 is a perspective view of the holding angle;

FIG. 2*a* is a fragmentary perspective view of the holding angle as seen from the front side thereof;

FIG. 3 is a side elevational view of the supporting section;

FIG. 3*a* is a fragmentary front elevational view of the supporting section;

FIG. 4 is a side elevational view of the covering section, and

FIG. 5 is a top plan view of a wedge-shaped plate serving for securing the supporting section and the covering section in their positions.

Description of a specific embodiment

With reference now to the drawing, a holding angle to be nailed to a wooden board *a* comprises a long leg **1** having holes **1***b* for the passage therethrough of nails and a short leg **1***a* having vertically extending elongated holes **1***c*. A supporting section **2** has a rectangularly bent portion **2***a* at its head end, horizontally arranged elongated holes **2***c* and punched-out lugs **2***b* projecting toward the inside. A covering section **3** has an approximately rectangularly offset head strip **3***a* and a lower acute-angled supporting strip **3***b* for a wedge-shaped plate **4** or the like which has preferably toothed edges **4***c* and a rectangular plate **4***b* for striking with a hammer there-

against. In FIG. 5, the numeral 4*a* designates a rectangular recess produced by the punching out of the rectangular plate 4*b* and serving for better gripping and holding the wedge-shaped plate 4. The edges of this wedge-shaped plate 4 may or may not be provided with a toothing. This feature is unessential. The reference numeral 4*a* designates an opening in the wedge-shaped plate 4, the reference numeral 5 the edge of a plastic foil to be clamped between the supporting section 2 and the covering section 3, the reference numeral 6 the nails for securing the holding angle in position and the reference numeral 7 a screw connection by means of which the supporting section 2 is detachably connected to the holding angle 1 through the intermediary of the elongated holes 1*c* and 2*c* so as to be adjustable in horizontal and vertical direction. The connection between the supporting section 2 and the covering section 3 is effected under variable stress by pushing wedge-shaped plates 4 at short distances apart, on the one hand, under the lugs 2*b* of the supporting section 2 and, on the other hand, into the acute-angle strip 3*b* of the covering section 3 and fastening them by blows with a hammer. Another specific substitute for the wedge-shaped plate 4 would be an eccentrically mounted circular disk.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

I claim:

1. An edge section for flat roofs having a covering sheeting, said section comprising:

(a) a holding means having a first portion secured to said roof edge underneath said sheeting and a second portion downwardly extending over said roof edge, said sheeting overhanging said roof edge;

(b) a covering means having a first portion overlapping said first portion of said holding means and being placed on top of said overhanging sheeting and a second downwardly extending portion overlapping said second portion of said holding means; and

(c) a wedging means placed between said second portions of said holding and covering means to cause said overlapping first portions to be forced together, thereby pressing and firmly anchoring said overhanging sheet between said holding means and said covering means.

2. An edge section as defined in claim 1 wherein said first portion of said holding means has a supporting section which is continuously bent outwardly at right angles for the reception of the free end of said overhanging sheeting.

3. An edge section as defined in claim 1 wherein said second portion of said holding means includes an abutment portion and said second portion of said overlapping covering means includes a supporting portion, said wedging means is placed between said supporting portion and said abutment portion.

4. An edge section as defined in claim 2 wherein said second portion of said holding means includes an abutment portion and said second portion of said overlapping covering means includes a supporting portion, said wedging means is placed between said supporting portion and said abutment portion.

5. An edge section as defined in claim 3 wherein said supporting portion has a step-like cross-section.

6. An edge section as defined in claim 3 wherein said abutment portion has a hook-shaped cross-section.

7. An edge section as defined in claim 4 wherein said wedging means comprises wedge-shaped plates which are toothed along their longitudinal edges.

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