Sept. 3, 1935. A. BROOKE 2,013,598

FINISHING BEADING, MOLDING AND THE LIKE

Filed Feb. 17, 1934

Fig. 1.

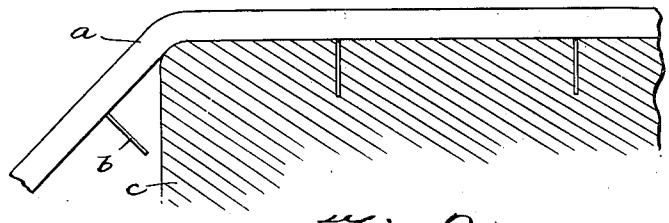


Fig. 2.

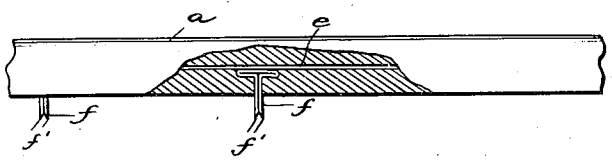


Fig. 3.

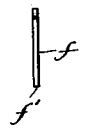


Fig. 4.

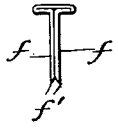


Fig. 5.

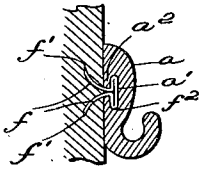


Fig. 6.

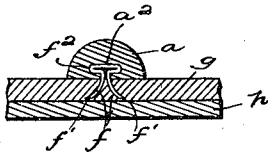


Fig. 7.

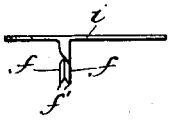


Fig. 8.



Fig. 9.

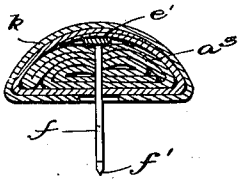


Fig. 10.

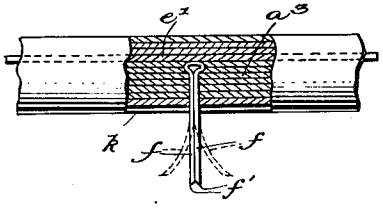


Fig. 11.

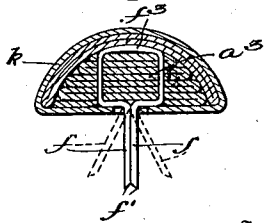
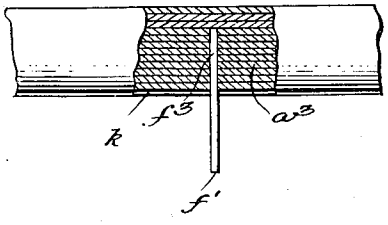


Fig. 12.



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UNITED STATES PATENT OFFICE

2,013,598

FINISHING BEADING, MOLDING, AND THE LIKE

Alec Brooke, Coventry, England

Application February 17, 1934, Serial No. 711,762
In Great Britain May 23, 1933

5 Claims. (Cl. 155—184)

This invention relates to beadings, edgings, moldings and the like finishings for upholstery including drip and cornice moldings as used around the roof of a vehicle to carry away rain water, and has for its object to adapt the same for ready and firm attachment especially around contours and corners and in cases where the depth of the material to which the attachment is to be made is insufficient to afford a secure hold for ordinary nails. Such cases occur where the substructure of the article to which the attachment has to be made is of metal covered with a thin layer of wood or the like.

The invention consists in the combination or association with beadings, edgings, moldings and the like finishings for the purposes described, of a series of attachment means permanently secured thereto and consisting of short prongs adapted to spread apart when driven home. By reason of their form and action when driven home these means can be made much shorter than the usual nails and yet provide a convenient and secure anchorage for the finishing or molding.

In the accompanying drawing,

Figure 1 is explanatory of one of the difficulties which are at present experienced in attaching finishings and moldings of the kind herein referred to by means of ordinary nails.

Figure 2, a fragmentary side elevation, partly broken away and partly in longitudinal section, of a beading or molding embodying the present preferred form of my invention;

Figure 3, an edge elevation of the present preferred form of the fastening means by itself;

Figure 4, a side elevation of said fastening means by itself;

Figure 5, a cross-sectional view through a metal gutter beading and a fragmentary portion of a foundation to which said beading is attached, a fastening means of the preferred form being shown in its driven and spread condition engaging in said foundation;

Figure 6, a view similar to Fig. 5 of an ordinary decorative beading, which may be of metal, or of a flexible textile or similar construction, as applied to a veneer metal backed panel, the fastening means of the preferred form being shown in its driven and spread condition, the beveled faces (see Fig. 4) having engaged, and having been additionally spread and clinched by, the opposed face of the metal backing *h*;

Figure 7, a side elevation of a modified form of the fastening means which in this form are made integral with a thin strip form metal base strip *i*;

Figure 8, an edge elevation of the modified form shown in Fig. 7;

Figures 9 and 10, cross and longitudinal sectional views respectively of a beading or molding employing a further modified form of fastening means; and

Figures 11 and 12, similar views of a further modification.

Where, as represented in Figure 1, it is required to secure a beading or molding *a* around a sharp bend by means of ordinary nails *b* of the requisite length, it will at once be obvious that the operation is attended with considerable difficulty. Even where the beading is of a flexible nature it is by no means an easy thing to fix it at the corner so that it lies uniformly and is at the same time secure. The difficulty is considerably greater when the molding is made of a ductile metal, for if the nail *b* is bent so as to be presented at right angles to the surface *c* the result is to cause the molding to form a hump at the corner, whereas if an attempt is made to drive the same nail *b* obliquely into the surface *c* it either lies flat and does not enter at all or it takes a very insecure hold, with the result that there is always a tendency for the molding to gape at the corner.

These difficulties are entirely avoided and a firm and durable attachment readily made by the adoption of attachment devices of the kind hereinafter described which are permanently secured to the molding or beading.

In the form shown in Figures 2 and 3 the improved attachment devices consist of short T-shape driven means formed with short bifurcated shanks and having a spread head, and fixed at intervals to a metal strip *e* embedded in the beading *a*. Owing to the increased security which is afforded by the spreading and clinching of their furcations the shanks of these fastening devices or means need not extend more than a quarter of an inch from or beyond the face of the beading in which they are embedded and consequently the attachment of the beading thereby is rendered a comparatively simple matter whatever may be the contour of the surface to which it is to be applied. These bifurcated fastening means can either be made separately and welded, or otherwise secured to the strip *e*, or, they may be made as integral parts of the metal strip *i* by forming them opposite each other along the edges of the strip, bending them at right angles to the latter and then twisting them about each other as shown in Fig. 7 so as to form a bifurcated shank having furcations *f* that will spread apart below the twist when driven home.

According to the preferred embodiment the individual fastening or securing means is made of a piece of preferably flat thin stiff metal wire folded upon itself into T form, the head constituting a flattened loop with the two end portions depending in close proximity from the central portion of the head to form a bifurcated shank having prongs or furcations *f* which are preferably of substantially equal length and have their adjacent lower end edges beveled downwardly and outwardly away from each other as at *f'*, as shown in Figures 2 and 4, so that when driven into a support or foundation the material of the latter will initially enter between said beveled faces as a wedge and force them to spread, such action progressively increasing as the fastener is driven home, with the result that each furcation or prong *f* is arcuately bent away from the other prong or furcation *f* and to some extent back upon itself, thus firmly anchoring in the material of the support or foundation. The furcations *f* being of stiff unhardened or untempered thin wire stock with the furcations extending substantially parallel closely adjacent each other and with their distant outer edge faces extending vertically and being intersected by the beveled faces *f'* to form cutting penetrating edges, it follows that on being driven into the support or foundation the furcations will penetrate the same closely adjacent each other, and will only begin to bend apart within the body of the foundation or support itself, the furcations *f* not being spread or pried apart, but held close together by the material of said support adjacent said furcations. Consequently, these fastening means, although less than half the length of ordinary nails, will provide a firm and lasting attachment for the molding or the like and by reason of their short length the uniform attachment of the molding around sharp bends is rendered a comparatively easy operation. Where, as shown in Figure 6, the material *g* to which the attachment is made is of a shallow depth, for instance a wood veneer, and mounted on a metal plate or foundation *h* the improved attachment devices not only spread when driven home but the ends on meeting the metal plate are deflected to produce an effective clinch.

In the case of metal moldings, such as the drip molding *a* represented in Figure 5, the improved attachment devices can be secured thereto in any suitable manner. They may, for example, be cast-in or the attachment face of the molding may, as shown, be formed with a longitudinal channel a^1 and the heads f^2 of the attachment devices permanently secured therein by rolling over the lips a^2 of the channel. Or, again, the said devices may be welded or soldered to the molding or the latter may be perforated to receive the attachment devices with a driven or force fit so as to become permanently associated therewith.

Where the fastening means are formed integrally with the metal strip *i* by being formed opposite each other along the edges of said strip and then bent down at right angles and twisted about each other, as shown in Fig. 7, their adjacent lower end edges as thus twisted are formed with opposed downwardly and outwardly beveled faces *f'* as above described for the reason above stated.

In some cases where the core of the beading is made of folded fabric, as shown in Figures 9 and 10, the attachment devices *f* are first driven through the unfinished core a^3 at intervals along its length and the heads spot welded to a strip of metal e^1 running lengthwise of the core. The formation of the core is then completed so as to enclose this strip e^1 and covered with an outer covering *k* of fabric or the like.

Alternatively, as represented in Figures 11 and 12 the attachment devices are driven at intervals through the uncompleted core a^3 in the form of staples f^3 the projecting limbs or prongs of which are subsequently pressed together parallel with each other to form a bifurcated shank, the loop at the closed end engaging the material of the core and providing a very secure anchorage. As before, the core is then completed and enclosed in an outer covering *k*. The free ends of the prongs are bevelled as shown so that when the spike is driven home they will spread apart, and securely retain the beading in position.

Besides the facility with which beadings and the like can be attached when using attachment devices of the kind herein described the latter, as already intimated, with reference to Figure 6, have the further advantage that owing to their short length but effective form they can be used where the material to which the attachment is to be made is of shallow depth and for which ordinary nails would be entirely unsuitable.

I claim:—

1. Beading comprising a body portion and a plurality of short attaching means to be driven into a support to which the beading is to be attached, said attaching means being permanently connected with said body portion and extending at right angles from one face thereof at spaced intervals lengthwise thereof, said attaching means having bifurcated support penetrating shanks and having their lower adjacent edges of their respective furcations beveled downwardly and outwardly away from each other, so that on being driven into said support said furcations will be progressively forcibly spread to positively interlock with the material of said support to resist pull in the reverse direction, whereby fastening means with shanks much shorter than the conventional nails heretofore used may be employed.

2. Beading comprising a flexible body portion and a plurality of short attaching means to be driven into a support to which the beading is to be attached, said attaching means being permanently connected with said body portion and extending at right angles from one face thereof at intervals lengthwise thereof, said attaching means being bifurcated and having the lower adjacent end edges of their respective furcations beveled downwardly and outwardly away from each other so that on being driven into said support said furcations will be progressively forcibly spread to positively interlock with the material of said support to resist pull in the reverse direction, whereby fastening means with penetrating portions much shorter than the corresponding portions of the conventional nails heretofore used may be employed.

3. Finishing beading comprising a body portion and a plurality of short attaching means to be driven into a support to which said beading is to be attached, said attaching means being permanently connected with said body portion and extending from one face thereof and at right angles to the longitudinal central line of said body, each said attaching means having a bifurcated support penetrating shank, the lower adjacent end edges of the furcations of said shank being beveled downwardly and outwardly away from each other, and each said furcation being bendable, whereby fastening means with shanks

much shorter than the penetrating portions of the conventional nails heretofore used may be employed.

4. Decorative beading comprising a body portion and a plurality of attaching means to be driven into a support to which said beading is to be attached, said attaching means being permanently connected with said body portion and extending at spaced intervals from one face thereof at an angle to the longitudinal central line of said body, each said attaching means having a bifurcated support penetrating shank, the furcations of said shank being bendable and the lower adjacent end edges of said furcations being beveled downwardly and outwardly away from each other, the fastening means being of such length they may be separately driven home completely without buckling of the body portion.

5. Decorative beading comprising a bendable body having a narrow strip-form metal base extending lengthwise of, and embedded in, said body and a plurality of short attaching means permanently connected to said base at spaced intervals lengthwise thereof and having shanks projecting from one face of said body at right angles to the longitudinal central line of said body, each said shank being bifurcated and having the lower adjacent end edges of its furcations beveled downwardly and outwardly away from each other, said furcations being bendable.

ALEC BROOKE.