May 18, 1943 O. J. CROWE 2,319,445

BEAD MOLDING

Filed Nov. 27, 1941

Fig. 1.

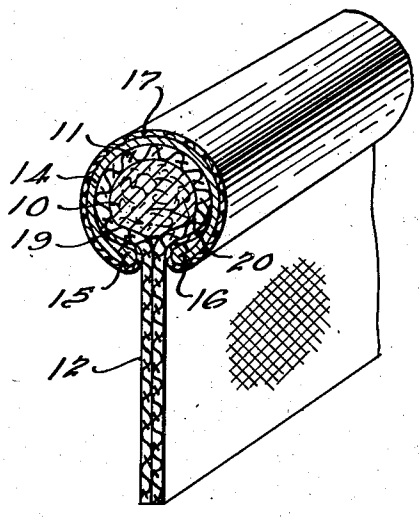
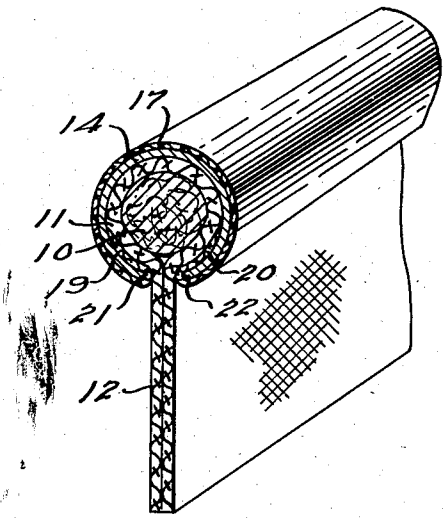


Fig. 2.



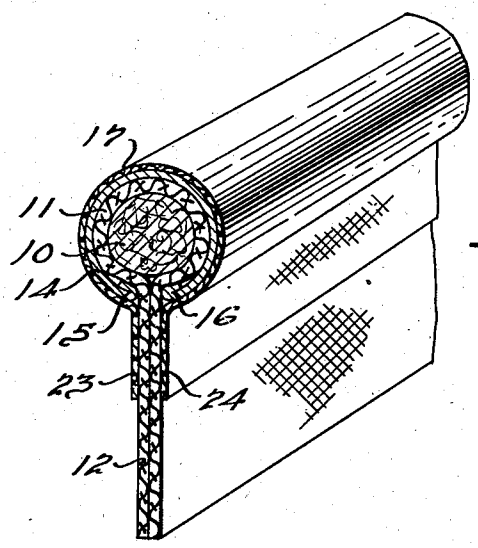


Fig. 3.

INVENTOR
Orley J. Crowe.
BY
Harness, Dickey & Pierce.
ATTORNEYS.

Patented May 18, 1943 2,319,445

UNITED STATES PATENT OFFICE

2,319,445

BEAD MOLDING

Orley J. Crowe, Detroit, Mich.

Application November 27, 1941, Serial No. 420,647

5 Claims. (Cl. 20—74)

The invention relates to molding and it has particular relation to bead molding adapted especially for use on motor vehicles.

One object of the invention is to provide an improved bead molding of inexpensive construction which is distinctly ornamental and which may be manufactured and applied efficiently.

Another object of the invention is to provide an improved bead molding which has an outer fabric covering on the order of that employed in preceding years but which is particularly characterized by a hard, smooth surface.

Another object of the invention is to provide an improved bead molding which possesses the reinforcing characteristics of metal and the water repellent, ornamental characteristics of treated fabrics employed in bead moldings heretofore.

Other objects of the invention will become apparent from the following specification, from the drawing relating thereto, and from the claims hereinafter set forth.

For a better understanding of the invention, reference may be had to the drawing, wherein:

Fig. 1 is a cross-sectional view of a bead molding constructed according to one form of the invention;

Fig. 2 is a similar cross-sectional view illustrating another form of the invention; and

Fig. 3 is also a similar view illustrating another form of the invention.

Referring to Fig. 1, the molding illustrated comprises a core 10 which may be constructed of a suitable twisted paper or other material adapted to form a filler for the bead. This core is enclosed by fabric 11 preferably of coarsely woven character such as burlap and the edge portions of such fabric are brought together so as to form a web or leg 12 projecting from one side of the bead. Normally, it will be found desirable to impregnate the burlap with a cement composition such as latex so as to provide tacky surfaces. This causes the fabric to adhere to the core and causes the leg portions to adhere one to the other. Moreover, the use of the latex renders the fabric repellent to water and, when the leg portion of the bead is disposed between metal surfaces, the fabric adheres to such surfaces and also acts to prevent water from seeping between such surfaces.

A hollow metal bead 14 surrounds the bead portion of the fabric 11 in substantially fitting relation thereto and the edges of this cover are reversely folded towards the inner side as indicated at 15 and 16. The metal cover may comprise a low carbon steel, such as plain cold rolled steel, and the metal may be rust-proofed. Rust-proofing may be effected by electro-galvanizing, which applies a thin coating of zinc to the metal. It might be mentioned here that the metal is sufficiently thin as to permit easily bending the molding to accommodate it to different contours. For example, the metal may have a thickness of fifteen or twenty thousandths of an inch, bearing in mind that it is desirable to have it as thin as possible in order to reduce the cost, while still having it sufficiently thick to resist undesired deformation, denting, etc. In other words, the material should be of such strength that one handling the molding may readily bend it to fit a particular contour without causing the metal to wrinkle or the edges to spread apart or the metal to be too easily dented.

At its outer side, the metal bead 14 is covered with fabric 17 and the edges of this fabric are folded around the edges 15 and 16 of the metal bead and extend substantially between the metal and the fabric 11, as indicated at 19 and 20. Such reversely folded edges of the fabric 17 may be cemented to the fabric 11 if found desirable, although normally the metal will be clinched about the bead sufficiently to hold the edges 19 and 20 of the fabric 17 firmly in position. The fabric 17 may comprise a product on the order of imitation leather, such as a fabric coated with pyroxylin, which renders the fabric water repellent, while at the same time giving it a substantially non-porous surface as compared to an ordinary fabric surface.

In manufacturing this structure, the fabric 17 is drawn tightly about the metal 14 and is held thereon in a taut condition. In tightening the fabric about the metal, the latter acts as an ironer and wrinkles are smoothed or ironed out and, as a result, the fabric has a hard, smooth surface appearance and, moreover, it is really hard because it is backed up by the relatively hard metal.

In manufacturing this structure, the metal 14 may initially be flat and the fabric 17 may be laid over one side of the metal and the edges thereof may be folded over the edges of the metal while both elements still are in a flat condition. The burlap 12 may then be laid over the opposite side of the metal and be pressed against the latter so as to cause it to adhere to the folded portions 19 and 20 of fabric 17. The core then may be laid at the center of the fabric 11 and then the metal and fabric layers may be folded around the core until the assembly is as shown. During this operation, the outer

fabric 17 is necessarily placed under certain tension, and accordingly it is held in a slightly taut condition, at least sufficiently taut so as to provide the hard, smooth surface appearance mentioned.

The structure shown by Fig. 2 is on the same order as that shown by Fig. 1 with the exception that the metal 14 is provided with non-folded edges 21 and 22.

The structure shown by Fig. 3 is the same as that shown by Fig. 1 with the exception that the edge portions of the fabric 17, instead of being folded around the edges 15 and 16 of the metal, extend partially along the leg 12 as indicated at 23 and 24. Such edges may be cemented to the leg 12 and the tacky surfaces of the leg may effect this cementing or additional cement may be used if desired.

Bead molding constructed according to the invention may be employed along joining edges of metal parts of a vehicle body, such as between a fender and the body proper. In this case, the leg of the molding extends downwardly between the metal surfaces, while the bead closes and conceals the break line between the fender and the body. The molding is water repellent and normally the fabric 17 will prevent water entering between such metal surfaces and at the same time it will prevent water from seeping or soaking into the bead. Inasmuch as the fabric 17 is maintained in smooth, unwrinkled condition, and normally will not be dented or deformed during use because of the rigid metal backing, the hard surface of the fabric will be better preserved and will not crack, at least on account of wrinkling or deformation. Rust-proofing of the metal is desirable to prevent rusting in the event moisture in the air reaches the metal or in the event the fabric 17 should be damaged so as to allow water to reach the metal. In appearance, the bead seems to be a solid element on the order of a metal rod, colored in accordance with the fabric. If pressed with the finger, it is hard on the order of the metal 11 and it maintains this characteristic along with smoothness and form retention indefinitely. It thus has distinct utilitarian and ornamental value.

Although more than one form of the invention has been illustrated and described in detail, it will be apparent to those skilled in the art that various modifications can be made without departing from the spirit of the invention.

I claim:

1. A bead molding comprising a web strip having a bead along one side edge, a thin metal cover folded laterally about the bead and having its edges spaced with the body of said strip projecting between said edges of the cover, a fabric cover over the metal cover, and means tightly holding the fabric on the metal cover.

2. A bead molding comprising a web strip having a bead along one side edge, a thin metal cover folded laterally about the bead and having its edges spaced with the body of said strip projecting between said edges of the cover, and a fabric cover over the metal cover and having its edges reversely folded inwardly about the edges of the metal cover.

3. A bead molding comprising a web strip having a bead along one side edge, a thin metal cover folded laterally about the bead and having its edges spaced with the body of said strip projecting between said edges of the cover, and a fabric cover over the metal cover and having its side edges cemented to the strip.

4. Molding comprising a thin sheet metal strip having its side portions bent laterally to form a hollow member, and a fabric cover over the member and having its side edge portions secured to the edges of such member.

5. Molding comprising a thin sheet metal strip having its side portions bent laterally to form a hollow member, and a fabric cover over the member and having its side edge portions reversely folded about the edges of the member so as to hold the fabric on the latter.

ORLEY J. CROWE.