May 16, 1933. J. S. REID 1,908,863

GLASS RUN CHANNEL

Filed Oct. 13, 1930

Fig. 1

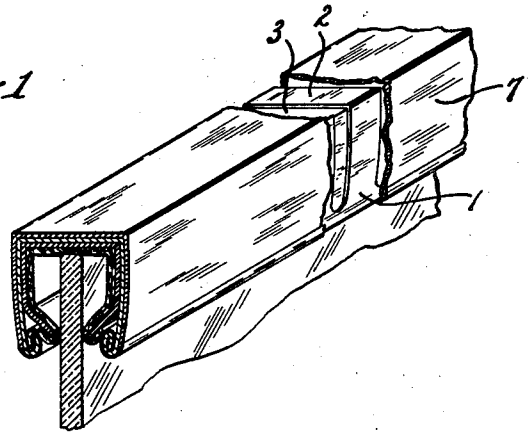


Fig. 2

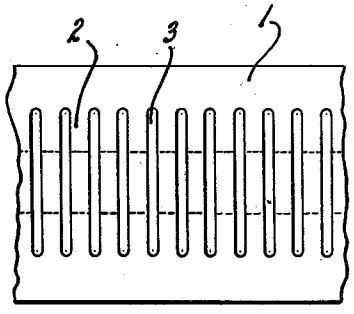


Fig. 3

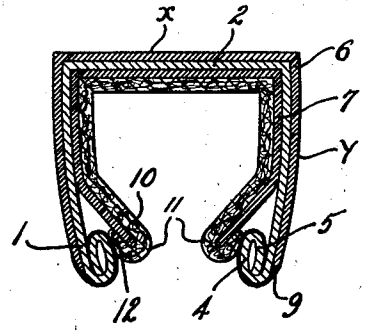
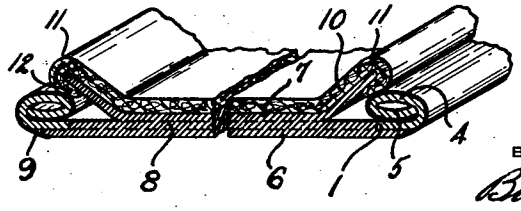


Fig. 4



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UNITED STATES PATENT OFFICE

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GLASS RUN CHANNEL

Application filed October 13, 1930. Serial No. 488,320.

The invention disclosed in this application relates to channel, and particularly to glass run channel utilized in conjunction with the windows of automobiles and the like.

The object of the present invention is to provide a channel, particularly of the glass run type, comprising a flexible metal core generally U-shaped in cross section and having its side flange edges rolled inward in a double fold to provide beads at the edges of the flanges, together with finishing strips formed over the beads and presenting a finish at these points.

Specifically, the core is made up of spring metal stamped out to provide continuous edge portions and longitudinally spaced or separated transverse straps, the free edges of the side flanges of said core being rolled inward in a tight double fold and the entire strip being bent into substantially U-shape in cross section with the side flanges curving slightly inward. Said metal core on the outside and inside is coated with a suitable cushioning material, such as rubber, which passes through the transverse slots between the transverse straps and forms a complete bond of rubber or the like around the main body of the core. Incasing each of the said flange beads of the metal core is a casing strip of chromium plated metal, stainless steel, aluminum or other desired material, for producing the required finish around the beads which would be exposed in use of the channel. Within the rubber coated metal core is suitable pad means which preferably is of felt attached to the rubber on the inside of said core before vulcanization of the rubber and folded back over the outer edges of said inside rubber, which edges are loose or unattached to the metal core side flanges, to provide glass engaging lip pads, said pads lying on the inside of and engaging side flange beads of the metal core of the channel.

Other features of the invention will appear from the following description, drawing and claims.

Referring to the accompanying drawing, Fig. 1 is a perspective view, with parts broken away, showing a section of the present channel applied to a window pane; Fig. 2 is a top plan view of a portion of the stamped metal blank as utilized for forming the channel core; Fig. 3 is a cross section of the channel; and Fig. 4 is a similar view of said channel in substantially flat form, such being its form before it is bent into channel shape.

In the embodiment of the invention here shown, the channel includes a core formed of a strip or ribbon of spring metal or the like, stamped out to provide continuous longitudinal edge portions 1 and transverse straps 2 longitudinally spaced apart to provide transverse slots 3. The edge portions of the metal are then rolled into substantially tight rolls comprising parts 4 and 5, Fig. 3. Formed about this strip is a rubber or like casing comprising a lower layer 6, Fig. 4, which becomes the outer layer of the formed channel, Fig. 3, and an upper layer 7, Fig. 4, which becomes the inner layer of the formed channel, Fig. 3, these two layers being united by keys or bonds 8, Fig. 4, passing through the slots 3. The side edges of the outer rubber layer 6 terminate at 9, just short of the outer edges of the outer portions of the core beads, and the side edges of the inner layer 7 terminate at about the middle of the inner portions of said beads. Suitably secured to the inner surface of said inner layer 6 is a cover 10 of felt or the like having its side edges turned or folded outwardly, as at 12, around the side edges of said inner rubber layer, the latter edges being loose or unattached to the side flanges of the metal core. Glass-engaging lip pads 11 are thus provided at the side edges of the inner rubber layer 6 and the felt cover 10, said lip pads lying on the inner side of and engaging the beads of the core side flanges.

The channel may be used as made up in this way, but where the beads are to be finished to present a more sightly appearance they may be incased with finishing strips of polished or plated metal. Each of said strips envelops a bead structure as a whole and may lap over the outer rubber layer 6 as shown in Fig. 3, with its inner edge tucked in behind the parts of the fold forming the bead.

The formed channel is of substantially U-

shape and comprises a bottom X and side flanges generally indicated at Y, with these side flanges curving slightly inward and with the beads extending inward behind the lip pads 11 so that as the lip pads bear against the glass pane they are forced against the beads and these beads yield outwardly by the flexing of the side flanges Y, all as will be readily understood.

Having described my invention, I claim:

1. A glass run channel, comprising a generally U-shaped structure having a base and side flanges, each of said flanges being provided at its free or outer edge with an inwardly rolled bead, and a finishing strip extending over each of said beads, the outer edge portion of each of said strips being extended onto the outer surface of a side flange and the inner edge portion of each of said strips being tucked between a bead and the inner surface of a side flange.

2. A glass run channel, comprising a substantially U-shaped flexible body having a base and side flanges, with said body within the free or outer edges of its side edges slotted transversely to form alternating transverse straps and transverse slots, inwardly rolled beads at the free or outer edges of said side flanges, a rubber coating for said body having outer and inner layers with portions of the rubber of one layer passing through said slots to the rubber of the other layer and thereby forming keys or bonds and with the edges of the inner layer extending toward each other, a felt cover secured to the inner surface of the inner layer and having its side edges turned or folded about the edges of said inner layer to provide glass-engaging lip pads adjacent the beads of said side flanges, and thin finishing strips formed about said beads.

3. A glass run channel, comprising a generally U-shaped metal member having a base and a pair of side flanges, said flanges being provided with beads at their free or outer edges, a layer of cushioning material for the inner surface of said metal member, the outer portions of the sides of said cushioning layer being unattached to the side flanges of said metal member, said unattached layer portions lying along side of and being extended inwardly toward each other by said beads and being adapted to receive therebetween a window or the like, and a fabric covering for each of said inwardly extending unattached layer portions.

4. A glass run channel, comprising a generally U-shaped flexible metal member having a base and a pair of side flanges, the outer or free edge portions of said flanges being turned inwardly toward each other and each of said flanges being provided at its free or outer edge with a bead, a layer of cushioning material for the inner surface of said metal member, the outer portions of the sides of said cushioning layer being unattached to the side flanges of said metal member, said unattached layer portions lying along side of and being extended inwardly toward each other by said beads and being adapted to receive therebetween a window or the like, and a fabric covering for each of said inwardly extending unattached layer portions.

In testimony whereof I hereby affix my signature.

JAMES S. REID.