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2,026,971

WINDOW GLASS GUIDE

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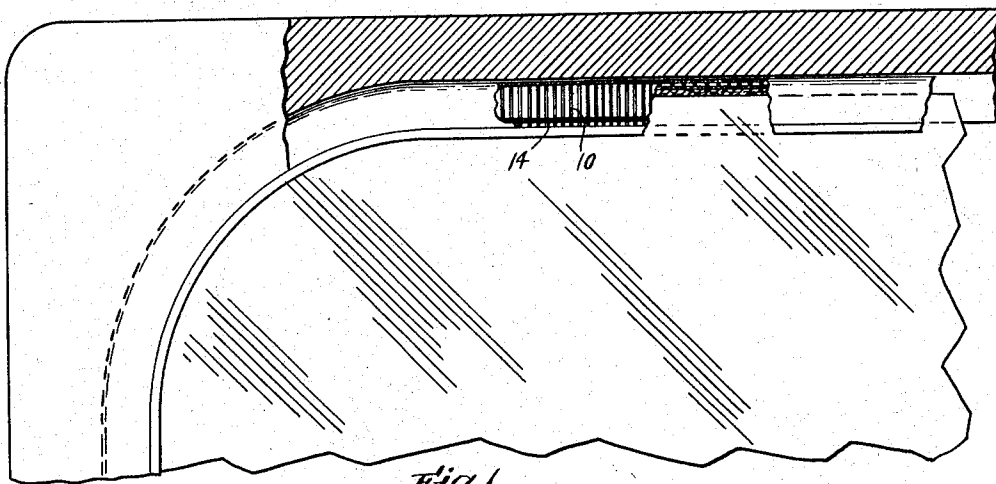


Fig. 1.

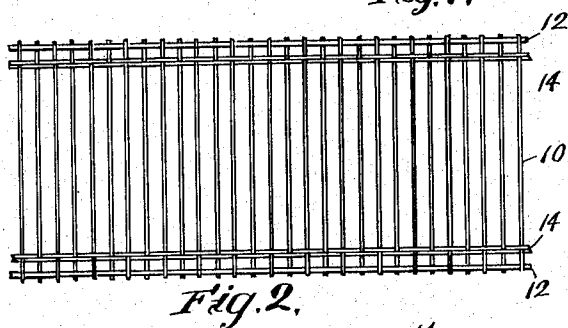


Fig. 2.

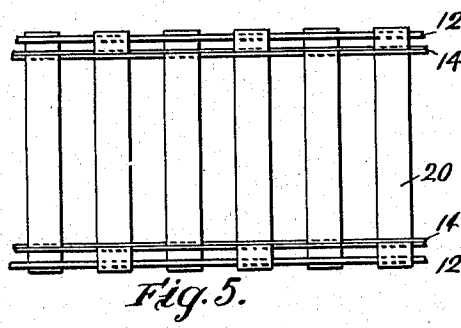


Fig. 5.

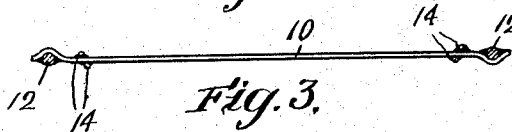


Fig. 3.

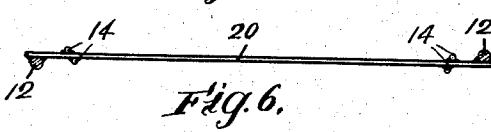


Fig. 6.

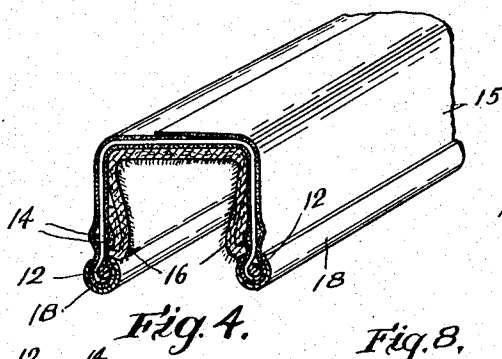


Fig. 4.

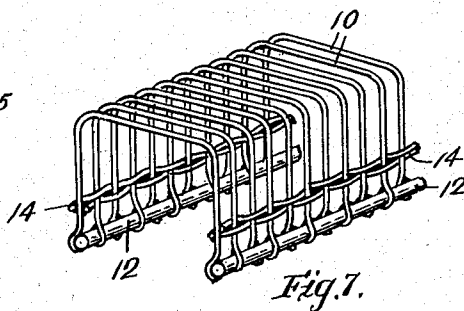


Fig. 7.

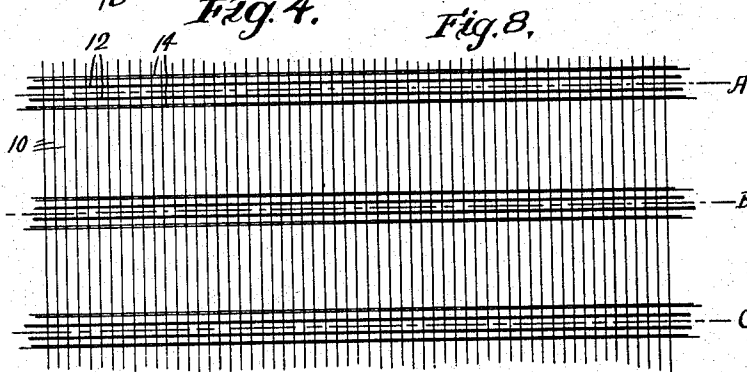


Fig. 8.

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UNITED STATES PATENT OFFICE

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WINDOW GLASS GUIDE

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3 Claims. (Cl. 296—44.5)

This invention relates to guides for frameless window glass generally employed in automobile bodies, and, more particularly to a type of guide which is adapted to be readily bent into curved formation, to conform to the various curvatures of the window casings when installed.

The guides of this type which have been most generally employed have usually been provided with a core of sheet metal bent into channel form and having slits, slots, or notches therein which enable the same to be bent without substantial distortion.

As the trade constantly demands decreased manufacturing costs, the primary object of my invention is to provide a guide of the above described character, which will have all the practical advantages of the guides previously employed, but which may be produced at a substantially lower manufacturing cost than has previously been possible.

I accomplish this object primarily by providing a galvanized web of woven wire, having regularly spaced weft strands and warp strands which are located with special reference to the ultimate use to which it is to be put, then passing the web through a galvanizing bath, then cutting the web into strips suitable to form the channel core, then bending the strips into channel form, and covering the core thus formed with suitable material to which glass cushioning means are attached.

For a more complete disclosure of the invention, reference is now made to the following specification in connection with the accompanying drawing in which:

Fig. 1 is a view in side elevation of a preferred embodiment of my invention installed in a window casing.

Fig. 2 is a detail view of a strip of woven wire material prior to formation into a channel core.

Fig. 3 is a transverse sectional view thereof on an enlarged scale.

Fig. 4 is a combined sectional and perspective view of a finished guide.

Figs. 5 and 6 are detail plan and sectional views of a modified form of material.

Fig. 7 is a perspective view of the core in channel form.

Fig. 8 is a view of a section of the web from which the cores are formed.

According to my invention, I provide a core for the channel which consists of a strip of woven wire, as indicated in Fig. 2, said strip comprising a series of regularly spaced transverse, or cross wires 10, and a pair of longitudinal or edge wires

12, of substantially larger gage than said cross wires, which are located at the ends of the cross wires, and are interwoven therewith, so that each wire 12 passes the cross wires at opposite sides thereof successively.

A pair of stay wires 14 are also interwoven with the cross wires closely adjacent the edge wires 12, the wires of each pair being arranged to pass at opposite sides of the alternate cross wires in opposite relation to each other, so that each cross wire is held by the stay wires against sidewise movement adjacent the edge wires 12. The entire strip is also galvanized so that all wires which come in contact with one another are practically soldered, or welded together at their points of contact, as indicated in Figs. 2 and 3. It will be understood that, while, as a matter of expense, a galvanizing operation is preferable, a soldering or a spot welding operation is considered as an equivalent.

In practice a woven wire web is formed in a machine resembling a loom in which the warp strands are the wires 12 and 14 and the weft strands the wires 10, the warp strands 12 and 14 being definitely arranged for the purpose, as indicated in Fig. 8, so that when the weft strands are cut on the lines A, B, C, the strips, such as shown in Fig. 2, will be formed. The galvanizing operation is performed on the web before it is cut into strips.

The strips are then bent into channel form, as indicated in Fig. 7, and the core thus formed being covered with sheet material such as cloth, or sheet rubber 15, to which cushioning material 16 is attached, which will be located within the channel in position to engage the sides and edge of the glass plate which will be placed therein.

Metal finish beads 18 are then clamped about the edges wires 12 over the covering 15, the diameter of the wires 12 being sufficient to enable the beads to be securely attached, so that the finished channel, or guide, is produced, as shown in Fig. 4.

As the edge wires and beads are located at the extreme edges of the channel, and the stay wires 14 are located closely adjacent thereto, when the channel is bent to conform to a window casing, as shown in Fig. 1, there will be no longitudinal strain on the edge wires and bead and practically none on the stay wires. There will be a slight strain on the covering, but, as this is of somewhat yieldable material, it will not substantially impede the bending operation, and the cross wires 10 will merely be swung apart slightly, as will be obvious, so that the bending operation may be

easily performed without substantial distortion of the channel.

As shown in Figs. 5 and 6, wire 28, of ribbon, or flat type may be employed for the transverse wires in lieu of the round wires 18, the longitudinal edge and stay wires being interwoven therewith and galvanized thereto the same manner as already described.

In some respects the use of the flat wire, as shown is preferable to the small strands of round wire, as it provides a more nearly continuous support for the covering, and is possibly less liable to become distorted.

It will be understood that while the beads 18 will generally be employed, they are not essential to the invention, as they may be omitted if a substantial reduction in cost is desired, also that the location of the stay wires shown is not essential if the channel is not to be bent into curved form when installed.

I claim:

1. A window glass guide comprising a channel shaped core composed of a pair of longitudinal edge wires, a series of regularly spaced transverse wires connected at their ends with said edge wires, and a pair of longitudinal stay wires interwoven with and connected to said transverse wires and arranged in proximity to said edge wires, said transverse wires being substantially unobstructed

to movement into relatively radial positions when the channel is bent to conform to a curved window frame.

2. A window glass guide comprising a channel shaped core composed of a pair of longitudinal edge wires, a series regularly spaced transverse wires interwoven at their ends and connected to said edge wires, and two pairs of longitudinal stay wires each interwoven with said transverse wires and arranged in proximity to said edge wires respectively, said transverse wires being substantially unobstructed to movement into relatively radial positions when said channel is bent into curved form.

3. A window glass guide comprising a channel-shaped core composed of a pair of relatively heavy longitudinal edge wires, regularly spaced transverse wires of relatively light weight connected at their ends to said edge wires, a pair of longitudinal stay wires of similar light weight interwoven with said transverse wires and arranged in close proximity to said edge wires respectively, said wires having galvanized connections at their points of contact and said transverse wires being substantially unobstructed to movement into relatively radial positions when the channel is bent into curved form.

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