May 21, 1929. E. W. M. BAILEY 1,714,256

WINDOW GLASS CHANNEL

Filed Aug. 27, 1927

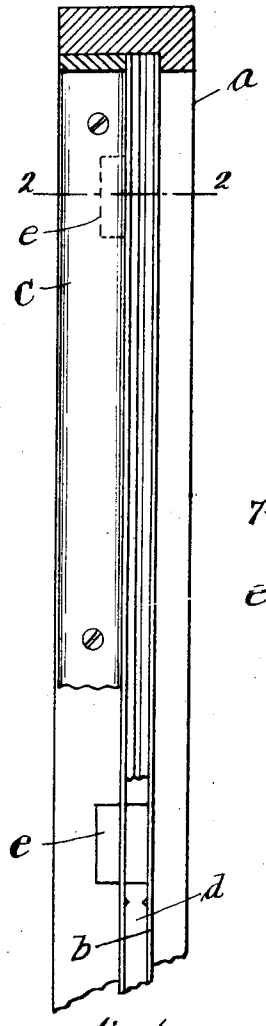


Fig. 1.

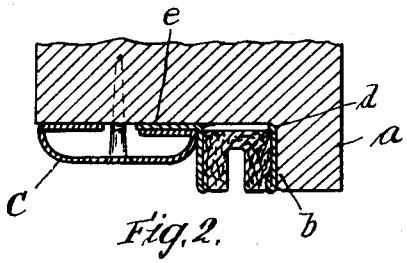


Fig. 2.

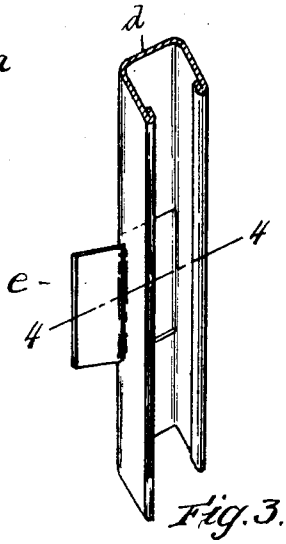


Fig. 3.

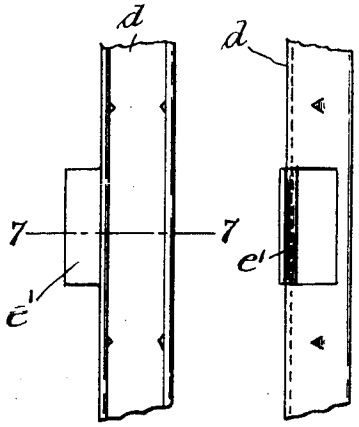


Fig. 5.

Fig. 6.

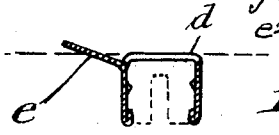


Fig. 4.

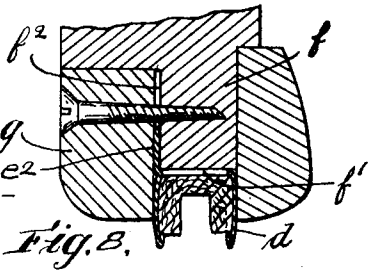


Fig. 8.

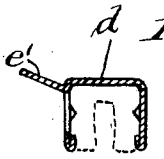


Fig. 7.

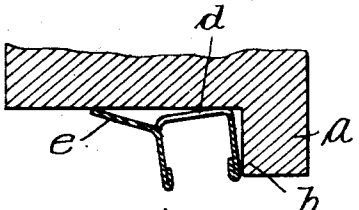


Fig. 10.

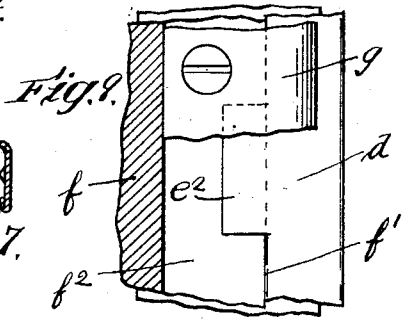


Fig. 9.

Inventor.
Edwin W. M. Bailey,
by [illegible]
Atty.

Patented May 21, 1929. 1,714,256

UNITED STATES PATENT OFFICE.

EDWIN W. M. BAILEY, OF AMESBURY, MASSACHUSETTS.

WINDOW-GLASS CHANNEL.

Application filed August 27, 1927. Serial No. 215,796.

This invention relates to that class of window glass guides, usually called channels, which are primarily designed to receive the edge portions of the window glass in closed body automobiles, and which comprise a metal strip bent in channel form and adapted to be secured in the window casing, a construction of this type being shown in my prior Patent No. 1,571,831.

Channels of this type are usually secured in grooves formed in the casing and these grooves are usually either of the type in which one side is closed by a removable molding, or in which both sides are integrally formed with the bottom, the present invention relating to channels for the type first referred to. In securing channels of this type in position in casings having the removable molding, it is undesirable to press the molding against the sides of the channel in a manner which would tend to press the sides together, as this would detract from their yieldability. To avoid this difficulty, channels of this type have usually been secured by screws passed through the bottom of the channel into the casing.

The principal objection to this method is in the labor cost incidental thereto, which is particularly great if the casing is of metal, which would involve the formation of screw threaded holes.

I have attempted to avoid this difficulty by spot-welding metal ears to the bottoms of the channel, so that the ears will project out at one side in position to permit them to be clamped against the casing by the molding. This method is objectionable for several reasons, partly on account of the expense necessary to attach the ears and because, in clamping the ears against the casing with the molding, the bottom of the channel was liable not to be pressed firmly against the casing, and the edge portions of its bottom were likely not to be held securely between the fixed side of the casing groove and the molding.

The object of my invention is to provide a metal window glass channel of the general type referred to with means whereby the channel will be securely held in position by the act of securing the molding to the casing, without affecting the resiliency of its sides, and to provide such means without substantial increase in the cost of manufacture.

I accomplish this object in the manner hereinafter described and as illustrated in the accompanying drawing, in which:

Fig. 1 is a front elevation of a portion of a window glass casing provided with a channel embodying my invention.

Fig. 2 is a cross section on line 2—2 of Fig. 1.

Fig. 3 is a perspective view of a section of the channel.

Fig. 4 is a cross-section on line 4—4 of Fig. 3.

Figs. 5 and 6 are front and side views, respectively of a modified form of the invention.

Fig. 7 is a cross section on line 7—7 of Fig. 5.

Fig. 8 is a sectional view of another modification.

Fig. 9 is a side elevation thereof.

Fig. 10 is a view similar to Fig. 4, showing the channel in position to be secured.

In the drawing, *a* indicates a section of a window casing, which is formed to provide a perpendicular side *b* for one side of the channel groove and *c* indicates a moulding which is adapted to be secured by screws to the casing, to form the other side of the groove.

A metal channel *d* for said groove is provided of the general type shown in my said prior patent, which, when finished ready to be placed in position will usually be felt-lined, as indicated in Fig. 2.

According to my invention, a preferred form of which is illustrated in Figs. 1 to 4, a series of rectangular shaped tongues *e* are formed from the channel by cutting thru its bottom transversely at two adjacent points and connecting the transverse cuts by a longitudinal cut adjacent one of its sides, the transverse cuts being extended from the longitudinal cut entirely across the bottom and for a short distance into the opposite side, and then bending the partly severed portions outward and laterally. The partly

severed portions, or tongues thereby formed, are bent to positions in which they extend somewhat obliquely, from the line in which the transverse cuts terminate in the side above the bottom, across the plane of the bottom, as indicated in Fig. 4 by the dotted line, so that, when the channel is placed on the flat surface of the casing, the ends of the tongues will be engaged with the surface and the tongues and will hold the channel in a slightly tilted position, with its bottom engaged with the surface at the opposite portion from the tongue and slightly raised from the surface at other points, as indicated in Fig. 10. When the channel is placed in position to be secured to the casing, the side opposite the tongues *e* will be held against the shoulder *b* with its bottom slightly tilted, as above described. The molding *c* will then be pressed onto the tongues and against the adjacent side of the channel and secured to the casing by screws, so as to clamp the tongues thereagainst. At the beginning of the clamping operation, as the molding will be held in a slightly tilted position by the tongues as indicated in Fig. 10, when the molding is drawn to the surface of the casing, it will act to force the opposite side of the channel at the corner between the side and bottom, into the corner of the casing, and at the same time, to draw the bottom of the channel down against the casing, so that, when the molding is firmly secured in position, the bottom of the channel will be held flat against the casing and its corner portion will be pressed firmly into the corner. That is, by this operation, the channel is first wedged into the corner of the groove and then its bottom is clamped firmly against the casing surface, as the portions of the tongues next the points where they join the channel are drawn towards said surface. As a result the channel may be securely clamped in position on the casing, without the application of pressure against its sides.

The number of tongues, which will be formed for a certain length of channel, depends on conditions, two or three for a channel of ordinary length usually being sufficient to enable the channel to be securely held in position.

The tongues may be readily formed by a stamping or punching operation, either in conjunction with the formation of the channel or at a subsequent operation.

While the tongues *e* are preferably cut from the bottom or base of the channel, similar results may be secured by cutting them from one side, as indicated in Figs. 5, 6 and 7, in which a similar tongue *e'* is formed by forming a longitudinal cut in one side near its top edge and two transverse cuts in the sides from the end of the longitudinal cut to points near the bottom. The partly severed portion is then bent outward from the side into a position corresponding to that of the tongue *e* in Fig. 9, as shown in Fig. 7. With this construction the clamping action of the molding on the tongues *e'*, in securing the channel in place, is the same as already described.

A further modification of the invention is illustrated in Figs. 8 and 9, in which a form is shown which is especially adapted for use in connection with rear windows, where the construction is such that the seat for the channel is at right angles to the seat for the molding, the construction illustrated comprising a casing *f* having a face *f'* to receive the channel base and a face f^2 to receive the molding *g*.

The construction employed in this connection is similar to that described in Figs. 1 to 4 except that the tongues e^2, which are cut from the bottom of the channel, are bent outward from the channel base thru only about one half the arc of that thru which the tongues *l* are bent, into position to engage a surface at right angles to the surface on which the base of the channel is to be held. That is, when the channel is placed in position with its bottom engaged with the face *f'*, the tongues e^2 will extend onto the face f^2 in position to be engaged by the molding *g*. In this instance the tongue will preferably not be engaged with the face f^2, except at its end, when the channel is first placed in position, but will be forced flat there against when the molding is clamped there against, so that the channel will be forced firmly against the shoulder of the casing. In this instance the drawing action of the molding is not effective in forcing the bottom of the channel against the casing, but the channel will be held firmly in position against the casing as the molding is secured.

While the tongues are preferably formed by means of two transverse cuts, which extend to a single longitudinal cut, they may be formed by two intersecting transversely and obliquely extending cuts, thereby forming a pointed tongue, but with such an arrangement the clamping effect above described would not be as effectively secured as with the constructions above described.

I claim:

1. A sheet metal window glass channel composed of a base and two sides and having a tongue cut therefrom and bent outward from one side along a line adjacent and at the outer side of its line of connection with the base, said tongue being extended obliquely to, and intersecting the plane of the base in position to be clamped to the window casing at one side of the channel, to secure the same in position thereon.

2. A sheet metal window glass channel composed of a base and two sides and having

a tongue cut therefrom and bent outwardly along a longitudinal line located in one of the sides, closely adjacent the base, to a position in which it is held in oblique relation to the surface to which it is to be clamped, when the channel is seated on its base and is arranged to engage the surface at its end, whereby, when the tongue is clamped to the surface, the channel will be forced sidewise and its base will be forced against the surface on which it is seated.

In testimony whereof, I have signed my name to this specification.

EDWIN W. M. BAILEY.