Dec. 6, 1938. O. R. MULLENS 2,139,312

AUTOMOBILE DOOR ACCESSORY

Filed May 4, 1937 2 Sheets-Sheet 1

Fig. 1.

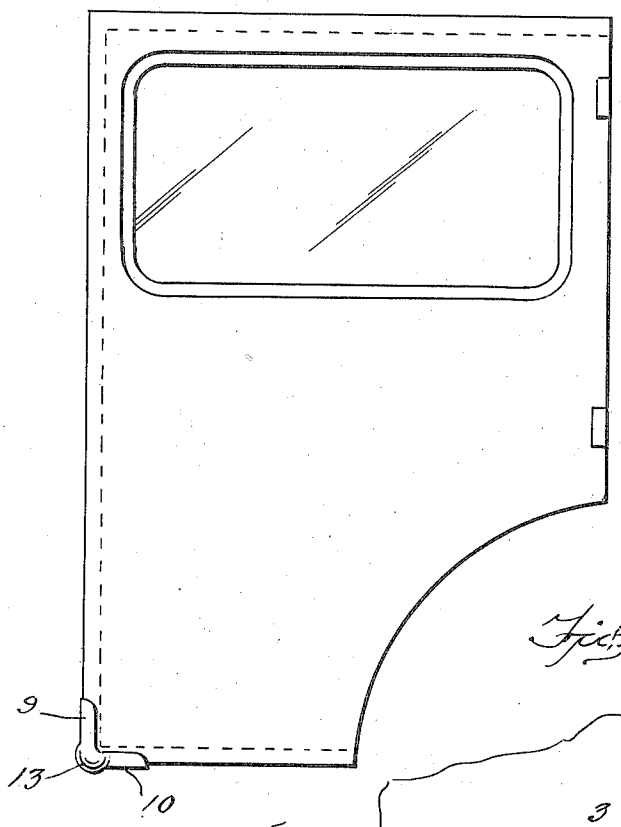


Fig. 2.

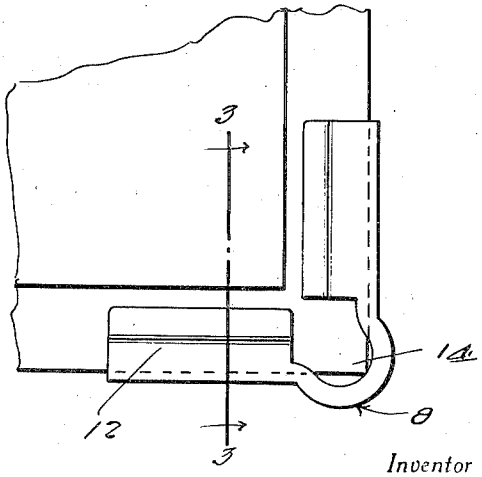
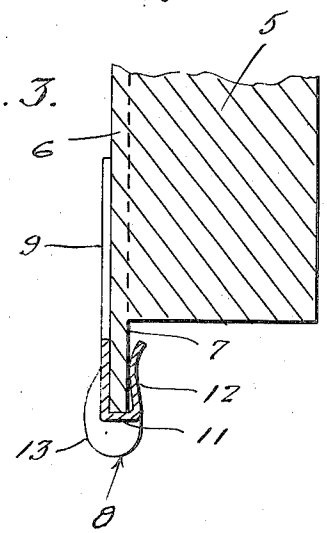


Fig. 3.



Inventor

O. R. Mullens

By Clarence A. O'Brien

Hyman Berman

Attorneys

Dec. 6, 1938. O. R. MULLENS 2,139,312

AUTOMOBILE DOOR ACCESSORY

Filed May 4, 1937 2 Sheets-Sheet 2

Fig. 4.

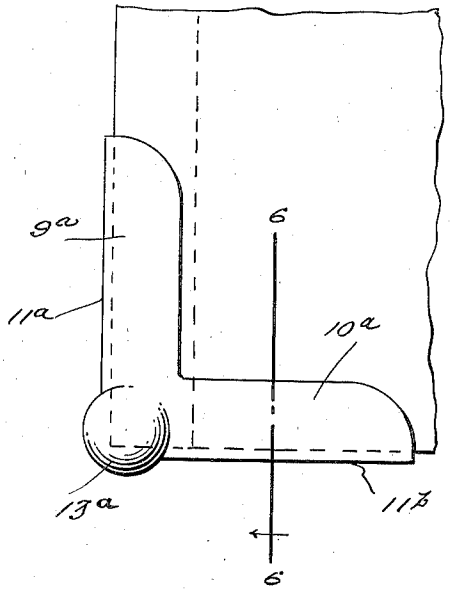


Fig. 5.

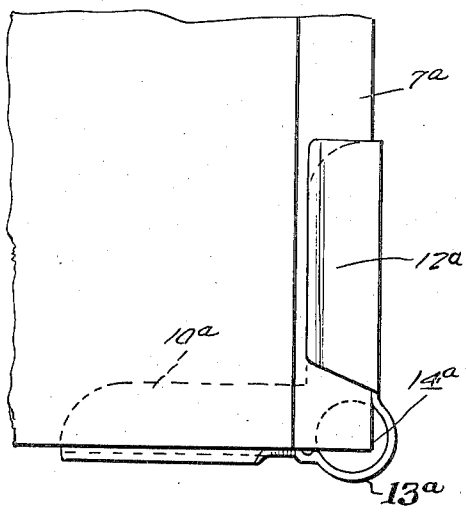


Fig. 6.

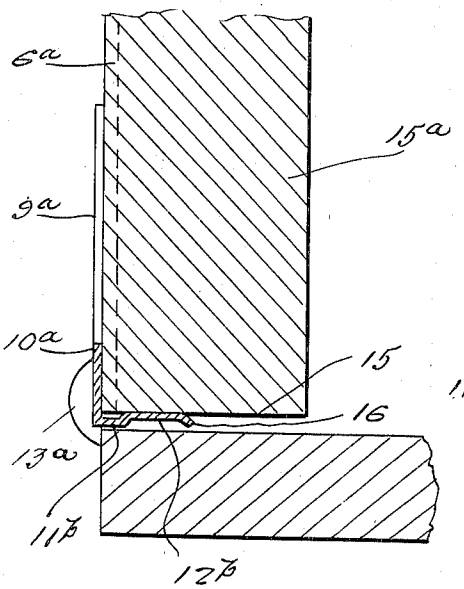
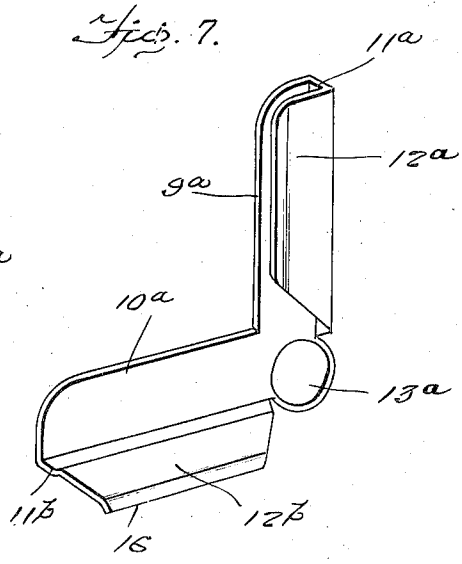


Fig. 7.



Inventor

O. R. Mullens

By Clarence A. O'Brien

Hyman Berman

Attorneys

Patented Dec. 6, 1938 2,139,312

UNITED STATES PATENT OFFICE

2,139,312

AUTOMOBILE DOOR ACCESSORY

Orla R. Mullens, El Paso, Tex.

Application May 4, 1937, Serial No. 140,714

3 Claims. (Cl. 296—44)

This invention relates broadly to automobile doors and more particularly to the equipping of such doors as to protect and guard against the tearing of a garment of a person entering or alighting from the automobile as oftentime results by part of the garment, especially of a woman's garment, becoming caught on the lower corner of the free edge of the door; and the invention, together with its objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings, wherein:

Figure 1 is a front view of an automobile door, constructed of metal, and illustrating the application of my invention thereto.

Figure 2 is a fragmentary detail elevational view of a corner portion of a door, and viewing the same from the inside thereof to further illustrate the application of the invention.

Figure 3 is a detail sectional view taken substantially on the line 3—3 of Figure 2.

Figure 4 is a fragmentary elevational view of an automobile door of wood construction and illustrating the application of a modified form of the invention thereto.

Figure 5 is a view similar to Figure 4 but viewing the door from the inner side thereof.

Figure 6 is a detail sectional view taken substantially on the line 6—6 of Figure 4.

Figure 7 is a perspective view of the attachment per se.

Referring to the drawings in detail, it will be seen that in general, my attachment is in the form of an L-shaped plate, the arms of which are suitably provided to engage the right-angularly related edge portion of a door at one corner of the latter, while at the junction of said arm, the metal from which the arms are formed are pressed out to provide a protecting knob, all of which will be hereinafter more fully explained.

In Figures 1 to 3 inclusive, I have shown the attachment as particularly designed for application to an automobile door constructed of metal, and which, as is conventional to such doors, is characterized by having the outside panel 6 projecting, at the top, bottom and side edge of the door opposite to the hinge edge of the door projecting beyond the body 5 of the door and thus presenting the flange 7.

The protector for application to this type of door is indicated by the reference numeral 8 and is formed from a single blank of metal cut, shaped and dimensioned to provide a substantially L-shaped body having the right-angularly related arms 9 and 10, and respectively provided along one longitudinal edge thereof with a flange 11 that merges into a spring jaw 12 that extends in parallelism to the arm and cooperates with the arm to receive therebetween a portion of the flange 7 of door panel 6 as clearly shown in Figure 3.

At the junction between the arms 9 and 10, the metal is pressed outwardly to present a somewhat bulbous formation 13 that accommodates the lower corner portion of the panel, which, being free of all projections and serving as a cap for the corner 14 of the door, will preclude a part of a garment becoming engaged with the corner 14, thus reducing to a minimum the possibility of the garment becoming caught on the corner 14 and consequently torn. Also, the cap 13 will guard against injury to the leg or any other part of the body that might otherwise be forcibly brought into contact with the sharp corner 14 of the door.

The form of the invention as illustrated in Figures 4 to 7 inclusive is particularly designed for an automobile door or the like wherein the outer panel 6a thereof does not terminate beyond, but rather terminates flush with the lower edge 15 of the door body 5a as shown in Figure 6.

The clip in this form of the invention is likewise formed from a single sheet of metal of such shape and dimension to provide the right angularly related arms 9a, 10a, with the arm 9a having at one edge the flange 11a merging into the integral flange extension or spring jaw 12a to accommodate with the arm 9a the metal flange 7a that projects from the vertical free edge of the door while the arm 10a at its lower edge is provided with the lateral flange 11b and an integral flange extension 12b which latter however extends laterally from the flange 11b and is slightly offset upwardly from the plane of the flange 11b and at its free longitudinal edge presents a downturned flange 16. The flange extension 12b engages flatly against the bottom edge 15 of the door body 15a, and being in frictional contact with the bottom edge of the door, serves to retain the clip or attachment against shifting in a horizontal plane relative to the door body.

At the junction of the arms 9a and 10a, the attachment is, like the attachment shown in Figures 1 to 3 provided with a bulbous shaped projection or corner portion 13a that accommodates the corner 14a of the door as clearly shown in Figure 5, so that the sharp point of the corner cannot come into direct contact with a person's garment or any part of the person's body, with the result that injury to the garment or to the person's body is effectively guarded against.

It is thought that a clear understanding of the construction, utility and advantages of an invention of this character will be had without a more detailed description.

Having thus described the invention, what is claimed as new is:

1. For use with a vehicle door, a guard for the lower free corner of the door, comprising a pair of right angularly related integral arms one of which is adapted to extend vertically along the vertical edge, and the other of which is adapted to extend along the horizontal edge of the door at said lower corner, said arms being provided with means for frictionally engaging said door edges to secure the guard in position, and said guard at the junction of said arms having an integral hollow hemi-spherical formation receiving therein the corner of the door at the angle formed by said edges.

2. In combination with a vehicular body metal door having a lower corner with a vertical end edge and a lower horizontal edge, and a guard for said lower corner formed from a single blank of material and having an intermediate substantially hollow hemi-spherical body portion to accommodate said corner at the junction of said vertical and horizontal edges, together with an integral vertical arm lying against the outer side of the lower corner portion of the door and provided along one vertical longitudinal edge thereof with an inturned flange lying against the inner side of said lower corner portion of the door, and an integral horizontal arm lying against the outer side of the said lower corner portion of the door and provided on its lower longitudinal edge with an integral flange lying against the inner side of said lower corner portion of the door.

3. In combination with a vehicle body wood door having an outer panel provided with a vertical edge projecting beyond the adjacent vertical edge of the body of said door, and a guard consisting of a single blank of material cut shaped and dimensioned to provide an intermediate body portion substantially of hollow hemi-spherical form to accommodate the lower corner of said panel and a pair of integral angularly related arms one of which lies against the outer side of said panel at the lower corner thereof and is provided at one edge with an integral flange extending inwardly into overlying relation with said arm and lying against the inner side of said panel at the extended vertical edge of the latter, and the other of said arms lying against the outer side of said panel adjacent the lower longitudinal edge of said door and having at the lower edge thereof a substantially horizontal flange extending inwardly and engaging the lower horizontal edge of the door body.

ORLA R. MULLENS.