May 9, 1944. J. S. REID 2,348,648

SCUFF PLATE

Filed Dec. 7, 1940

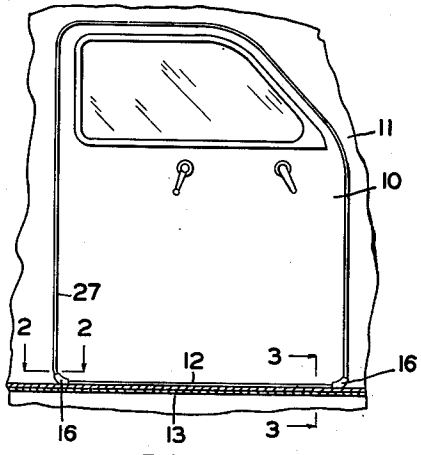


FIG.-1

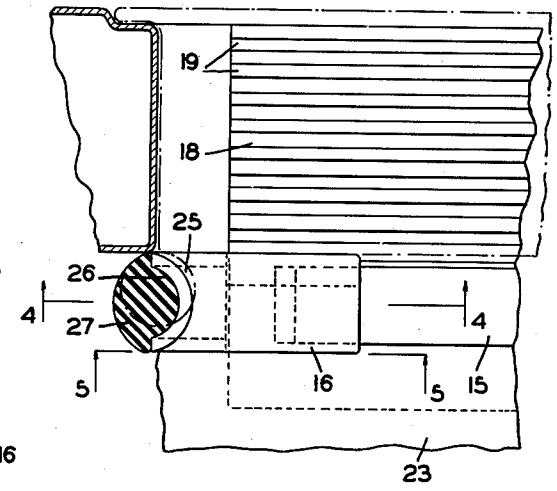


FIG.-2

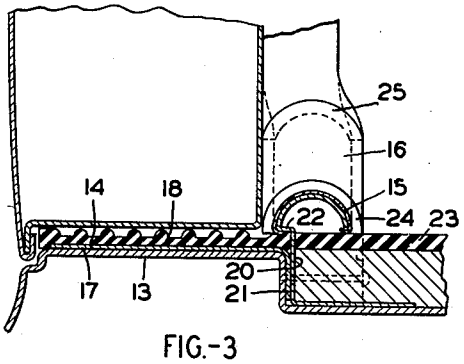


FIG.-3

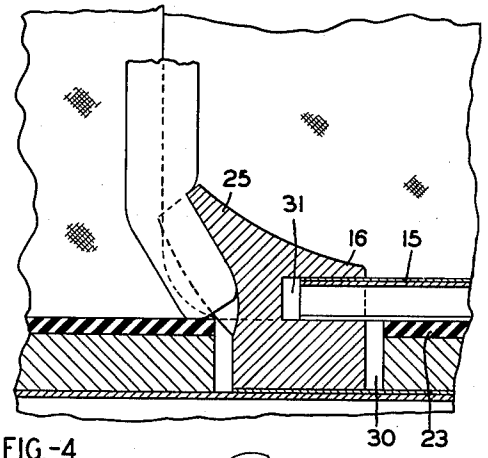


FIG.-4

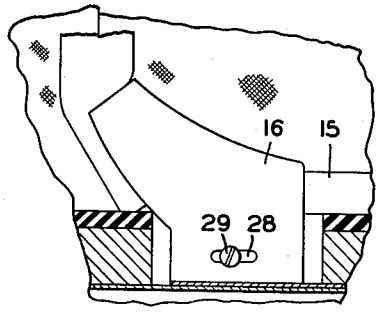


FIG.-5

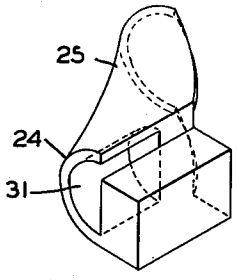


FIG.-6

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SCUFF PLATE

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5 Claims. (Cl. 20—64)

The invention relates to a scuff plate, and, more particularly, to a scuff plate of improved character for use on the floor sill of an automobile doorway, the general purposes of such scuff plate being, as is well understood in the art, to receive and cushion the scuffing effect caused by the shoes of persons entering and leaving by such doorway, and to improve the appearance of said doorway.

In the manufacture of automobile bodies, and under stress of quantity production by modern methods, it is inevitable that certain variations in dimension are encountered between individual bodies. With particular reference only to the field of the present invention, it is well known to those engaged in manufacture of such bodies that the door opening may vary by as much as one half inch in width.

Since scuff plates, as hereinabove noted, are now customarily used in automobile doorways and since, in addition to the utilitarian purpose already mentioned, they also serve to enhance the general appearance of the vehicle interior as revealed when the door is open, the manufacturer is confronted by the problem of choosing a scuff plate trim member which can be neatly fitted into openings of various widths.

Certain alternative remedies have been suggested, each one attended by obvious disadvantages. It has been proposed that the assembly lines should be equipped with a stock of scuff plate trim portions of a plurality of lengths, from which stock the workman selects the one closest to the correct length. From a cost standpoint, in view of loss of time and cost of material, this method is quite undesirable. The generally used solution has been to provide a stock of only one size, that being the minimum width encountered in commercial practice, since it can always be installed without loss of time. In many cases however it leaves an unsightly aperture at one or both ends of the strip.

An important object of the present invention is the provision of a scuff plate of adjustable length, yet simple in construction, and of pleasing appearance. A further object is the provision of a scuff plate of this nature which is readily attachable and removable and which may be snugly and securely fitted in place, while adaptable to door sills of various lengths. Yet a further object of this invention is the provision of a slidably adjustable portion on at least one part of such a scuff plate, said adjustable portion being manufactured from any suitable material such as rubber, metal, synthetic plastic material, or the like.

Further objects are in part obvious, and in part will appear more in detail hereinafter.

The invention will be more readily understood from the following description of an embodiment thereof, reference being had to the accompanying drawing, in which

Fig. 1 is an elevation of a vehicle door, seen from the interior, the adjoining body portions being broken away.

Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Fig. 4 is a section taken on the line 4—4 of Fig. 2.

Fig. 5 is a section taken on the line 5—5 of Fig. 2.

Fig. 6 is a perspective view of one of my adjustable end portions for a scuff plate.

Before the present invention is described in detail, it is to be understood that such invention is not limited to the details of construction and/or the specific arrangement of parts herein illustrated and/or described, as the invention may obviously take other forms. It also is to be understood that the phraseology or terminology herein employed is for the purpose of description and not of limitation, there being no intention and no desire to limit the present invention, as herein disclosed and as defined in the appended claims, beyond the requirements of the prior art.

In the drawing the numeral 10 indicates an automobile door supported in conventional fashion in a body structure 11. A scuff plate assembly 12 is positioned in the threshold portion of the doorway, immediately beneath the door, and supported generally by the automobile body substructure 13 (Fig. 3). The scuff plate assembly comprises an outwardly extending, substantially horizontal sill portion 14, a semitubular trim portion 15, upwardly convex, and adjustable end pieces 16 later to be described.

When the door is open member 14 serves as a step tread being made preferably from a backing plate 17 of steel and provided with a facing portion 18 of rubber, or rubber-like material cemented or otherwise attached to the backing plate 17. The step tread facing 18 may be provided with spaced parallel grooves 19 to afford a nonskid foothold. The decorative trim member 15 forms an inner longitudinal boundary for facing member 18, and also serves as a sealing strip for the lower edge portion of the door. It

is in part supported, along its outer terminal edge by an inwardly and downwardly turned flange portion 20 which may be welded, or otherwise firmly affixed to a corresponding flange 21 on backing plate 17, or held in juxtaposition thereto by the contour of the aforesaid substructure.

The inwardly directed offset 22, along the outer terminal edge of the bead 15 provides a recess in which the inner edge of mat 18 may be snugly seated. The inner edge of the semi-cylindrical bead member 15 may conveniently rest on the matting 23, or other suitable vehicle flooring composition. The bead 15 may preferably be formed from stainless steel, or other material of pleasing appearance.

Adjustable end pieces 16 are slidably secured on the ends of the bead 15. An inwardly extending arched portion 24 is shaped to seat upon bead 15 and a projecting end portion 25 is curved gradually upwardly to conform to the contour of the door frame. This projecting portion 25 is contoured, on its lower end face 26, to conform to the contacting face of a windlace 27 which customarily extends around the portion of the door frame exposed by the opening of the door, serving as a sealing member when the door is shut. The end piece 16 may be of a metal or material identical with, or similar to, the metal or material composing the scuff member 15, or it may be made from rubber, rubber-like material, or suitable plastic material. In the form shown it is slotted at 28 to provide for the insertion therethrough of a screw 29 which is threaded into the automobile frame structure. The end piece is laterally movable along the bead 15 to an extent limited by the length of slot 28, and may be held in the desired final position by tightening screw 29. The base of the slidable end piece is seated in a grooved out portion 30 of the floor immediately within the door, and, as best shown in Figs. 4 and 6, the end of the trim member 15 extends part way into the arched aperture 31.

Instead of attaching the end piece 16 in place by a screw, as shown for instance in Figs. 3 and 5, it may be cemented in place by using any suitable adhesive. An end piece of relatively soft material such as sponge rubber could be securely held by an adhesive, and would augment the sealing action at the door corners. Members 14 and 15 need not be integrally connected but may be maintained in adjacent relationship by attaching member 14 to the body structure 13, and securing member 15 to the body structure beneath matting 23. Members 14 and 15 may also be fabricated in a unitary section, thereby dispensing with flanges 20 and 21. It is likewise feasible to eliminate the tread material 18 and use member 14 directly for stepping on.

As thus constructed the end pieces are preferably designed to match, in color, contour, or otherwise, the appearance of the other members of the scuff plate assembly 12—13. Unless the door opening is exceptionally wide, necessitating a very long bead member 13, the adjustable end pieces also serve to anchor the scuff plate assembly at its ends.

From the above description it is apparent that my improved scuff plate assembly is of simple construction and is readily attachable to its location in a vehicle door frame. It may be accurately adjusted and fitted in place in openings of various sizes, and it provides a neat, finished appearance to a door sill.

What I claim is:

1. A scuff plate structure for door frame openings of various widths, comprising an elongated scuff member extending over the greater portion of the width of said door opening, and an end piece slidably mounted on an end of said scuff member, said end piece comprising a block like base portion having an upper surface, an arched portion integral with said base portion along one side and one end thereof and separated from said base portion along the respectively opposed side and end of said base portion, said arched portion and said base portion defining therebetween a recess, said scuff member being longitudinally adjustably disposed in telescoping relationship within said recess and having one edge portion only thereof supported along said upper surface of said base portion.

2. A scuff plate structure for door frame openings of various widths, comprising an elongated scuff member extending over the greater portion of the width of said door opening, and an end piece slidably mounted on an end of said scuff member, said end piece comprising a block like base portion having an upper surface, an arched portion integral with said base portion along one side and one end thereof and separated from said base portion along the respectively opposed side and end of said base portion, said arched portion and said base portion defining therebetween a recess, said scuff member being longitudinally adjustably disposed in telescoping relationship within said recess and having one edge portion only thereof supported along said upper surface of said base portion, said arched portion overlying and conforming in contour to the upper outer surface of the enclosed end of said scuff member.

3. A scuff plate structure for door frame openings of various widths, comprising an elongated scuff member extending over the greater portion of the width of said door opening, and an end piece slidably mounted on an end of said scuff member, said end piece comprising a block like base portion having an upper surface, an arched portion integral with said base portion along one side and one end thereof and separated from said base portion along the respectively opposed side and end of said base portion, said arched portion extending outwardly above and beyond said base portion along said last named opposed side, said arched portion and said base portion defining therebetween a recess, said scuff member being longitudinally adjustably disposed in telescoping relationship within said recess and having one edge portion only thereof supported along said upper surface of said base portion.

4. A scuff plate structure for door frame openings of various widths, comprising an elongated scuff member extending over the greater portion of the width of said door opening, and an end piece slidably mounted on an end of said scuff member, said end piece comprising a block like base portion having an upper surface, an arched portion integral with said base portion along one side and one end thereof and separated from said base portion along the respectively opposed side and end of said base portion, said arched portion and said base portion defining therebetween a recess, said scuff member being longitudinally adjustably disposed in telescoping relationship within said recess and having one edge portion only thereof supported along said upper surface of said base portion said end piece having a terminal projection integral therewith, and extending in a direction opposed

to said scuff member, said projection abutting and conforming in contour with the lower portion of the side wall of said door frame opening.

5. A scuff plate structure for door frame openings of various widths, comprising an elongated scuff member extending over the greater portion of the width of said door opening, said scuff member comprising a base portion, a vertically extending side wall, and an arched portion carried along the upper edge of said side wall, said arched portion having a free edge overlying said base, and an end piece slidably mounted on an end of said scuff member, said end piece comprising a block like base portion having an upper surface, an arched portion integral with said base portion along one side and one end thereof and having a free edge separated from said base portion along the respectively opposed side and end of said base portion, said end piece arcl portion and upper surface of said base defining therebetween a recess, said scuff member being being longitudinally adjustably disposed in telescoping relationship with said end piece so that the free edge of the arched portion of said scuff member rests along the upper surface of the base of said end piece, and so that the arched portion of said end piece overlies and conforms in contour to the upper, outer surface of the arched portion of said scuff member.

JAMES S. REID.