Oct. 18, 1966 L. E. CROMWELL ET AL 3,279,853

ARM REST

Filed May 20, 1964 2 Sheets-Sheet 1

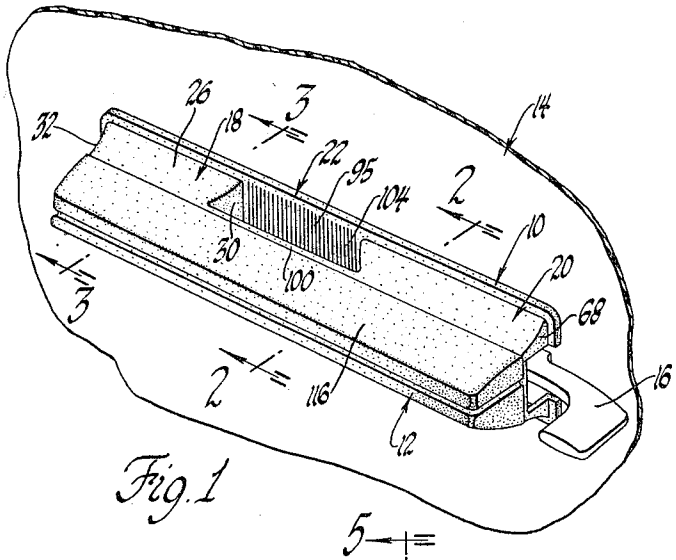



Fig. 1

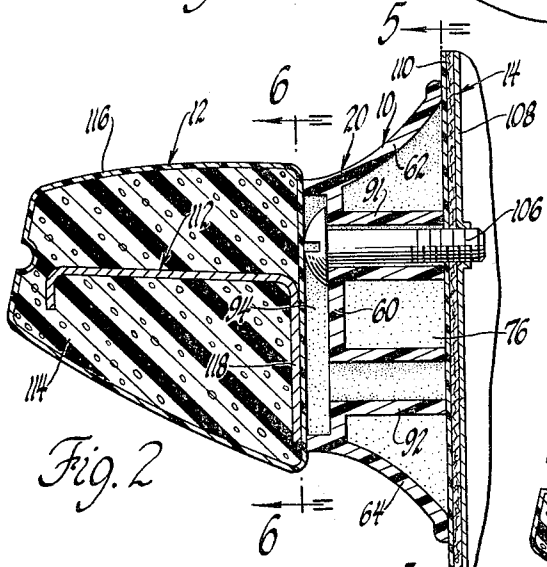



Fig. 2

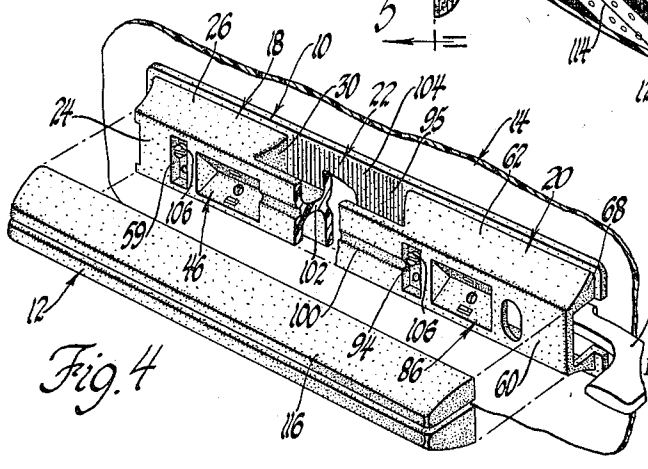



Fig. 4

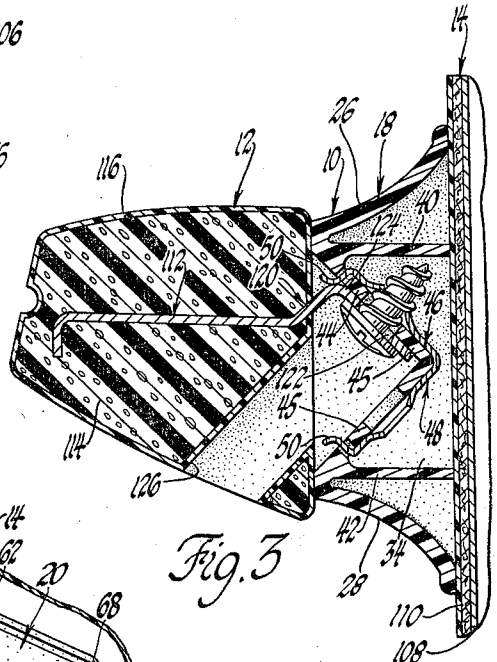



Fig. 3

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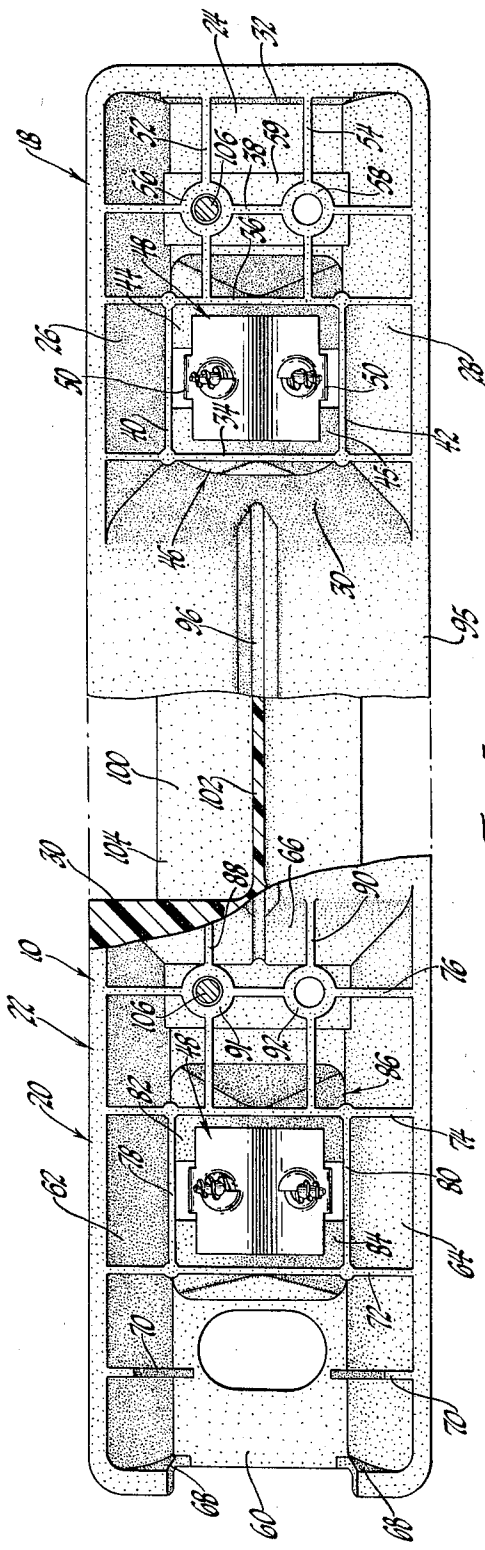


Fig. 5

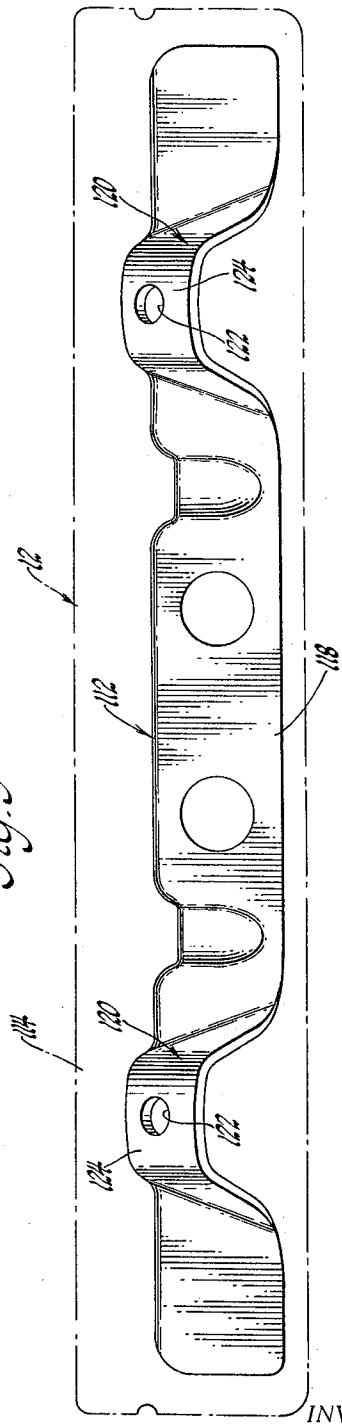


Fig. 6

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3,279,853

# ARM REST

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6 Claims. (Cl. 297—412)

This invention relates to vehicle body arm rests and more particularly to a vehicle body arm rest having a base and a cushion assembly.

One feature of this invention is that the base is constructed and arranged so as to be used on body panels of opposite hand. Another feature of this invention is that the base is symmetrical about the longitudinal center line thereof so as to be used on body panels of opposite hand. A further feature of this invention is that the base includes longitudinally spaced mounting portions and an intermediate hand grip portion, with the mounting portions including means for mounting the base on the body panels and means for securing the cushion assembly to the base, with both said means being symmetrical about the longitudinal center line of the base. Yet another feature of this invention is that the hand grip portion includes a finger receiving pocket located to each side of the longitudinal center line of the base and opening laterally thereof. Yet a further feature of this invention is that the mounting portions include recesses adapted to receive and to be secured to mounting means on the cushion assembly.

These and other features of the invention will be readily apparent from the following specification and drawings wherein:

FIGURE 1 is a perspective view of a vehicle body arm rest according to this invention mounted on a body panel;

FIGURE 2 is an enlarged sectional view taken generally along the plane indicated by line 2—2 of FIGURE 1;

FIGURE 3 is an enlarged sectional view taken generally along the plane indicated by line 3—3 of FIGURE 1;

FIGURE 4 is an exploded perspective view of the arm rest shown in FIGURE 1;

FIGURE 5 is a view taken generally along the plane indicated by line 5—5 of FIGURE 2; and

FIGURE 6 is a view taken generally along the plane indicated by line 6—6 of FIGURE 2.

Referring now to FIGURES 1 and 4 of the drawings, the arm rest includes a base or support **10** and a cushion assembly **12** which is secured to the base after the base has been mounted on a vehicle body panel **14**, as will be described. The base **10** includes means for mounting a paddle type inside door handle or operator **16** which is connected to a door latch in a conventional manner to release the latch upon movement of the handle. The arm rest need not incorporate such a handle unless desired, and the handle forms no part of this invention.

The base **10** includes spaced mounting portions **18** and **20** and an intermediate hand grip portion **22**. The mounting portion **18** includes a base wall **24**, like arcuate upper and lower or side walls **26** and **28**, and end walls **30** and **32**. As shown in FIGURE 5, a plurality of transverse webs or ribs **34**, **36** and **38** interconnect the walls **26** and **28**. The webs **34** and **36** are further interconnected by longitudinal webs or ribs **40** and **42**. The apertured inclined walls **44** and **45** of a wedge or prismoid **46** are joined to the walls **40** and **42** at the bases thereof. A mounting clip **48** surrounds the walls **44** and **45**, FIGURE 3, being provided with openings aligned with the apertures of the walls, and with offset tangs or end portions **50** which extend through openings in each of the walls **44** and **45** so as to releasably retain the mounting clip in place.



The transverse webs **36** and **38** and wall **32** are interconnected by longitudinally extending webs or ribs **52** and **54**, with the intersection of the webs **52** and **54** and the web **38** including columns or tubular portions **56** and **58**, respectively, which open to the outer or front side of the base **10** through wall **24** to a generally vertically extending recess or pocket **59** of the base **10**.

The mounting portion **20** is similar to the mounting portion **18** and includes a base wall **60**, upper and lower or side walls **62** and **64**, and end walls **66** and **68**. As shown in FIGURE 5, a plurality of transverse webs or ribs **70**, **72**, **74**, and **76** interconnect the walls **62** and **64** of this mounting portion. The walls **72** and **74** correspond to the walls **34** and **36** of the portion **18** and are interconnected by longitudinal webs or ribs **78** and **80** which correspond to the webs **40** and **42**. The apertured inclined walls **82** and **84** of a wedge or prismoid **86**, which corresponds to the wedge **46**, are joined to the walls **78** and **80** at the bases thereof. A clip **48** surrounds the walls **82** and **84** and is secured thereto in the same manner as to walls **44** and **45**.

The webs **74** and **76** and the wall **66** of portion **20** are interconnected by longitudinally extending webs or ribs **88** and **90**, with the junctions of these webs with the web **76** including columns or tubular portions **91** and **92**, respectively, which open to the front face or side of the portion **20**, to a generally vertically extending recess or pocket **94**. Webs **88** and **90** correspond to webs **52** and **54** and columns **91** and **92** correspond to columns **56** and **58**, respectively. The web **70** is cut away to provide for the mounting of the paddle handle **16** within the portion **20** in a conventional manner and the end wall **68** is cut away to permit the handle to rotate relative to the base **10**.

It will be noted that the pairs of tubular columns **56** and **91** and **58** and **92** are located on opposite sides of the longitudinal center line of the base **10** and equidistant therefrom. It will further be noted that the pairs of inclined apertured walls **44** and **82** and **45** and **84** are also so located on opposite sides of the longitudinal center line of the base **10** so that both the mounting means for the base on the body panel and the mounting means for securing the cushion assembly to the base are symmertically arranged. Thus, it makes no difference whether the base **10** is mounted on a right-hand or a left-hand body panel and the same base can be used for both such panels by merely rotating the base through 180°, as will be explained.

The hand grip portion **22** of the base **10** includes a base wall **95** which is located intermediate the walls **24** and **60** and is joined to the end walls **30** and **66** of the housing portions **18** and **20**, respectively, as can be seen in FIGURE 5. Wall **95** is intermediately grooved at **96** with the base of this groove being located at the longitudinal center line of the base **10** and in longitudinal alignment with the junctures of walls **44** and **45**, and **82** and **84**. Portion **22** further includes a base wall **100**, FIGURE 4, which is located in lateral parallel spaced relationship to the wall **95** and is also joined to the walls **30** and **66** of the portions **18** and **20**, respectively, as well as being located generally coplanar with the base walls **24**

and 60 of these portions. As shown in FIGURES 4 and 5, a lateral web or wall 102 interconnects the walls 94 and 100 and the walls 30 and 66 and cooperates therewith in providing oppositely opening pockets or finger-receiving portions 104. The wall 102 is located coplanar with the plane of the longitudinal center line of the base 10. The front face or surface of the wall 95 may be grooved or otherwise decorated as desired, as shown in FIGURES 1 and 4.

The base 10 is mounted on the body panel 14 by inserting screws or bolts 106 through the columns 56 and 91 or 58 and 92 into threaded engagement with tapped openings of a body inner panel 108 which forms the foundation or base member for the trim panel 110. As can be seen in FIGURE 2, the recesses or pockets 59 and 94 permit the heads of the bolts 106 to be located within the plane of the base walls 24, 100 and 60 of the base 10. Since the columns 56, 58, 91 and 92 are located equidistant from the longitudinal center line of the base 10, it makes no difference whether the base is mounted on a right-hand or left-hand body panel.

The cushion assembly 12 generally comprises a U-shaped metal base or core member 112 located within a cast plastic cushion 114 of suitable material, such as polyurethane. Cushion 114 is bonded to an outer seamless shell 116 of suitable trim material such as vinyl, which is formed as a one-piece element in a suitable manner, such as by rotational casting. The cushion 114 may be foamed in place within the shell 116 after the core member 112 has been first located within the shell. At two places, the inboard leg 118 of the member 112 is offset outwardly at 120 from its normal plane, as shown in FIGURES 3 and 6, and apertured at 122. The bases 124 of the generally U-shaped offset portions 120 are adapted to abut or be juxtaposed to the pairs of inclined walls 44 and 82 or 45 and 84 of the base 10 depending upon whether the base is used as a right-hand base or as a left-hand base. As shown in FIGURE 3, the offset portions 120 fit within the recesses defined by the prismoids 46 and 86 and the cushion assembly 12 is secured to the base 10 by sheet metal type screws which extend through the openings in the inclined walls into threaded engagement with the clips 48. The cushion assembly 12 is suitably cored or apertured at two places at 126 to provide inclined columns or openings permitting the screws 118 to be mounted in place.

If the arm rest is used as a left-hand arm rest as shown in FIGURES 1, 2 and 3, the bases 124 of the offset portions 120 will be abutted against the inclined walls 44 and 82 and be secured thereto. If the arm rest is used as a right-hand arm rest the base 10 will be rotated 180° so that the bases 124 of the offset portions 120 will be abutted against the inclined walls 45 and 84 and be secured thereto. Since the base 10 is symmetrical about the longitudinal center line thereof, it need only be rotated through 180° or turned upside down as previously explained, so as to be used for either a right-hand or a left-hand part. However, the cushion assembly 12 is not symmetrical about the longitudinal center line thereof but is symmetrical about a vertical transverse axis or plane so that the cushion assembly must be removed from the base 10 and turned end for end if it is to be used for parts of opposite hand.

Thus, this invention provides an improved vehicle body arm rest.

We claim:

1. A vehicle body arm rest comprising, in combination, an elongated support including spaced portions, each including a base wall and at least one end wall, a second base wall located intermediate and in parallel spaced reltionship to said first base walls and joined thereto by said end walls, a third base wall spaced from said second base wall and being disposed generally coplanar with said first base walls, said third base wall cooperating with said second base wall to provide a hand grip portion, recess means provided in each of said first base walls, a cushion assembly covering said first and said third base walls, means on said cushion assembly received within said recess means and being secured to said support to mount said cushion assembly thereon, and means adjacent said recess means for securing said support to a vehicle body, said recess means and said securing means being symmetrical with respect to the longitudinal center line of said support to permit said support to be used on body panels of opposite hand.



2. A vehicle body arm rest comprising, in combination, an elongated support including spaced portions, each including a base wall and at least one end wall, a second base wall located intermediate and in parallel spaced relationship to said first base wall and joined thereto by said end walls, a third base wall spaced from said second base wall and being disposed generally coplanar with said first base walls, said third base wall cooperating with said second base wall to provide a hand grip portion, recess means provided in each of said first base walls and symmetrical with respect to the longitudinal center line thereof, means in said spaced portions symmetrical with respect to the longitudinal center line of said support for mounting said support on a vehicle body panel, the symmetry of said recess means and said mounting means permitting said support to be used on body panels of opposite hand, a cushion assembly covering said first and said third base walls, and means on said cushion assembly received within said recess means and being secured to said support to mount said cushion assembly thereon.

3. A cushion assembly for a vehicle body arm rest comprising, in combination, a seamless shell including a rear wall adapted to be located in juxtaposed relationship to a vehicle body panel, a reinforcing member located within said shell and including a flange located in inwardly spaced juxtaposed relationship to said rear wall of said shell, foam plastic material interconnecting said reinforcing member and said shell, means on said flange extending therefrom and projecting outwardly of said wall to a predetermined position with respect thereto and to said body panel, and means cooperable with said flange means for mounting said cushion assembly on said body panel.

4. A vehicle body arm rest comprising, in combination, an elongated support generally symmetrical about the longitudinal center line thereof, said support including an outwardly facing first wall provided with a spaced pair of outwardly opening recesses therein, each said recess being defined by a pair of oppositely facing second walls joined to each other at an inner end thereof and joined to said first wall at an outer end thereof, the joined inner ends of said walls being located in a plane including the longitudinal center line of the support, means mounting said support on a body panel of particular hand, said support being rotatable about the longitudinal center line thereof so as to be mounted on a body panel of opposite hand, a cushion assembly engageable with said first wall and including a spaced pair of mounting portions projecting from said cushion assembly into said recesses, each portion engaging one of said second walls of each of said recesses, said cushion assembly mounting portions engaging the other of said second wall when said support is rotated about the center line thereof, and means for securing said mounting portions to the second wall engaged thereby.

5. The combination recited in claim 4 wherein said support includes oppositely opening finger grip portions located inwardly of said cushion assembly and intermediate said recesses, said finger grip portions being symmetrical about the longitudinal center line of the support.

6. The combination recited in claim 4 wherein said recesses and said mounting means are located in respective spaced pairs and separated by intermediate oppositely

opening finger grip portions symmetrical with respect to the longitudinal center line of the support.

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