May 18, 1965 J. C. EALEY ET AL 3,184,264

WINDSHIELD PROTECTOR

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Fig-1

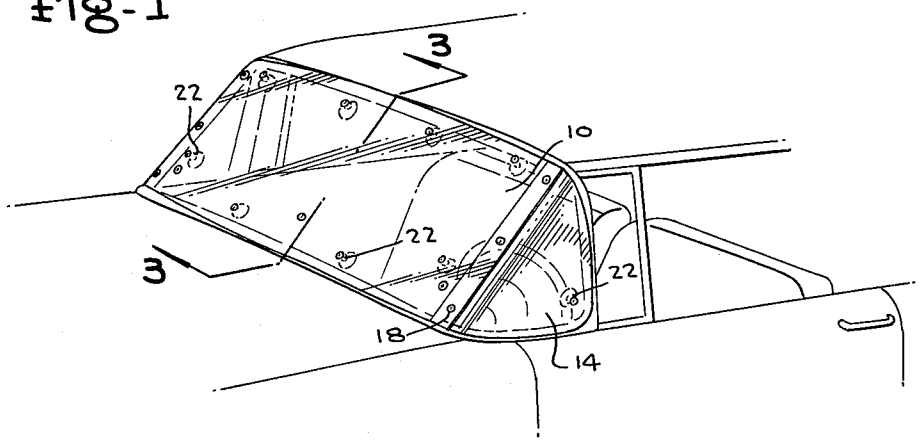


Fig-2

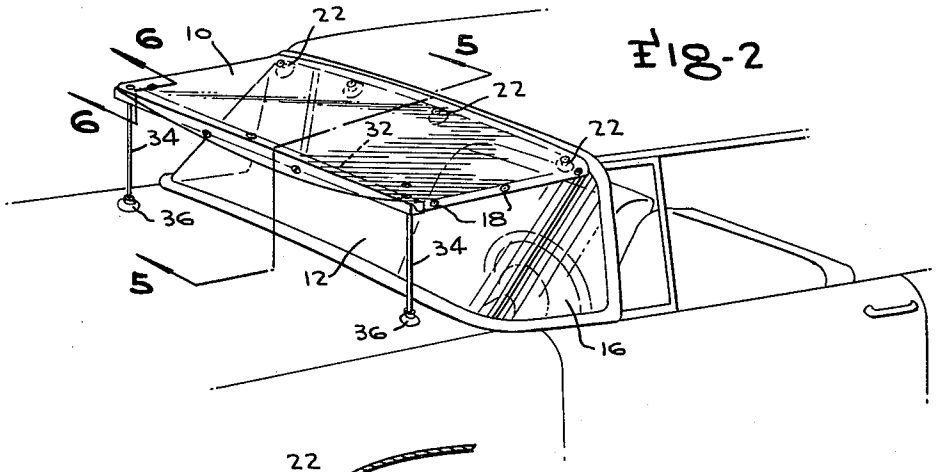
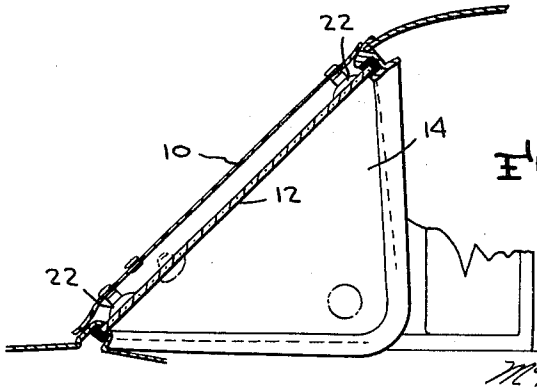


Fig-3



INVENTORS
JAMES C. EALEY, JR.
RICHARD OUSLEY
BY
McMorrow, Berman & Davidson
ATTORNEYS

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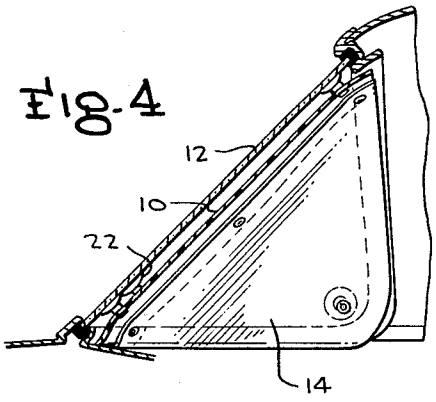


Fig-4

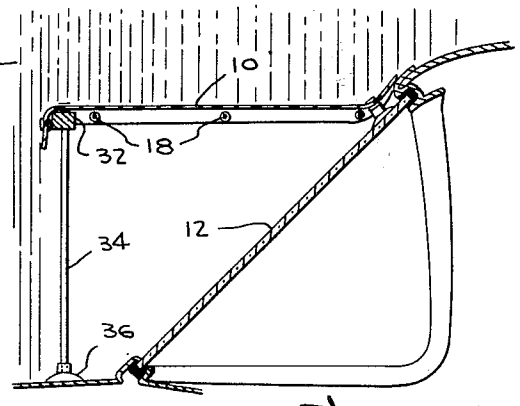


Fig-5

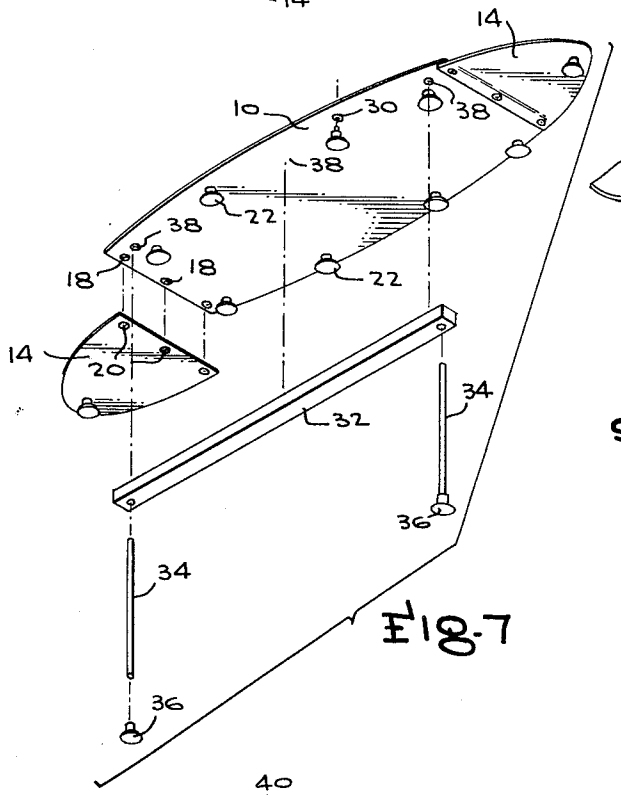


Fig-7

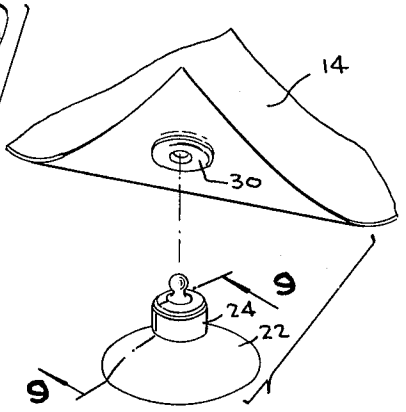


Fig-8

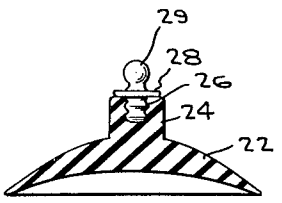


Fig-9

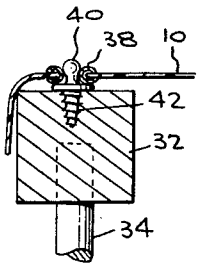


Fig-6

INVENTORS
JAMES C. EALEY, &
RICHARD OUSLEY
BY

McMorrow, Berman & Davidson
ATTORNEYS

United States Patent Office 3,184,264 Patented May 18, 1965

3,184,264

WINDSHIELD PROTECTOR

James C. Ealey and Richard Ousley, Raceland, Ky., assignors of one-third to Charles B. Johnson, Russell, Ky.

Filed Feb. 15, 1963, Ser. No. 258,704
1 Claim. (Cl. 296—95)

This invention relates to protective covers for car windshields and the like.

It is an object to provide a cover which protects exteriorly against accumulation of ice, snow or frost on a windshield, and is also capable of interior use to reduce glare.

These and other objects, which will be apparent, are attained by the present invention, a preferred form of which is described in the following specification, as illustrated in the drawing, in which:

FIGURE 1 is a perspective view of a portion of an automobile, with the protective cover in place over the exterior surface of the windshield,

FIGURE 2 is a view similar to FIGURE 1, showing an alternative use of the protective cover as a canopy,

FIGURE 3 is a sectional view taken on the line 3—3 of FIGURE 1,

FIGURE 4 is a view similar to FIGURE 3, showing another manner of use, with the protective cover reversed and overlying the inner surface of the windshield,

FIGURE 5 is a sectional view taken on the line 5—5 of FIGURE 2,

FIGURE 6 is a fragmentary view, enlarged, of a detail in FIGURE 5,

FIGURE 7 on exploded view, in perspective, of the protective cover,

FIGURE 8 is an exploded perspective view, enlarged, of a suction cup and its mounting, and

FIGURE 9 is an enlarged sectional view taken on the line 9—9 of FIGURE 8.

Referring to the drawings by characters of reference, there is shown a protective cover of transparent, sheet plastic, in three separable parts, including a central section **10**, adapted to cover the main, central portion **12** of the windshield, and a pair of generally triangular wings **14**, adapted to cover correspondingly shaped, rearwardly extending end portions **16** of the windshield. The wings **14** are secured to the central section **10** in lap joints, by means of snap fastener components **18**, **20** (FIGS. 1 and 7), which are conventional in structure, and need not, therefore, be described in detail.

The parts of the protective cover, when in overlying relation to the windshield, are secured thereto by means of a plurality of suction cups, judiciously arranged. For instance, the protector is shown as having four such cups **22**, located marginally along each of its two long sides, and the end, wings **14** are shown as each having one cup. As seen in FIGURE 9, the cups **22** each have the usual shank portion **24**, and in this shank is anchored a corrugated stem **26** having an outer, flat collar **28**, and an outer, round knob **29**, constituting the male element of a snap fastener, the female element **30** of which, in the form of a grommet, is suitably secured in the protective cover, as shown in large scale, for the wing section **14** in FIGURE 8.

With or without the end wings, the central section **10** may be quickly attached by simple pressure, to either the inside or outside surface of the windshield, the placement of the cover inside or out being dictated by circumstances.

For instance, where the only problem is glare, as in sunlight, or in night driving, the cover is preferably placed on the inside, where it will not be affected by winds, and when it is desired to keep the windshield free of frost, ice or snow, as in temporary or overnight parking, it will be placed on the outside.

For keeping the windshield free of rain, as, for instance, at a drive-in movie, without resort to windshield wipers, the cover may readily be converted into a canopy. In order to effect the canopy structure a supporting rail or beam **32** is provided, secured at its ends, as by glueing or a friction fit, to standards **34**, of dowel stock, each carrying at its lower end, a suitable suction cup **36**, adapted to dwell on the surface of the hood of the car. The lower edge of central section **10** of the cover, after removal of the lower line of suction cups **22**, is secured to beam **32** by means of snap fasteners in the form of grommets **38**, in the cover (FIGS. 6 and 7), which snap over male members having round heads **40**, and a wood-screw portion **42**, threaded into the top face of support beam **32**. It will be understood that grommets **30** for the suction cups may be made to perform double duty, and coact with knobs **40**, thus doing away with the need for extra grommets **38**. In this use, the upper line of suction cups **22** continues to hold the cover on the upper part of the windshield. In FIG. 5, the numeral **44** indicates the falling rain, which is kept from contact with the windshield, and which therefore offers little obstruction to vision in the viewing of an outdoor movie screen. In the use as a canopy, the end wings **14** may be left on, and permitted to hang down, but a wider angle of vision results if they are removed.

In any of the uses shown, the cover or canopy is easily installed by a simple placement of the cups and light pressure, and as easily removed by rapid detachment of the several cups. The cover is equally applicable to the rear window, or other windows of a car, if and when such other uses are required.

While a certain, preferred embodiment has been shown and described, various modifications will be apparent, in the light of this disclosure, and the invention should not, therefore, be deemed as limited, except insofar as shall appear from the spirit and scope of the appended claim.

I claim:

In combination, a windshield having a main transverse vertical portion having an upper edge, and a vehicle body portion extending forwardly from the lower edge of the windshield, a cover comprising a flexible sheet having a main portion substantially as wide as the windshield, the major portion of said main portion of the sheet being horizontally disposed and spaced above said body portion, said sheet main portion having a rear edge portion which is flexed upwardly relative to the main portion of the sheet, first means securing said rear edge portion to the main portion of the windshield at a location adjacent to and below the upper edge of the windshield main portion, said first securing means comprising a plurality of suction cups longitudinally-spaced on said windshield main portion and connected to the sheet by snap fasteners and second means secured to the said body portion and to the main portion of the sheet and retainably spacing the main portion of the sheet above said body portion, said second means comprising a normally horizontal beam, snap fastening means releasably connecting the forward edge of the main portion of said sheet to said beam, a plurality of standards having one of their ends fixedly secured to said beam at longitudinally-spaced intervals with the other ends of said standards depending there-

from, and a suction cup secured, respectively, to each lower end of said standards for releasable engagement with said vehicle body portion.

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A. HARRY LEVY, *Primary Examiner.*