

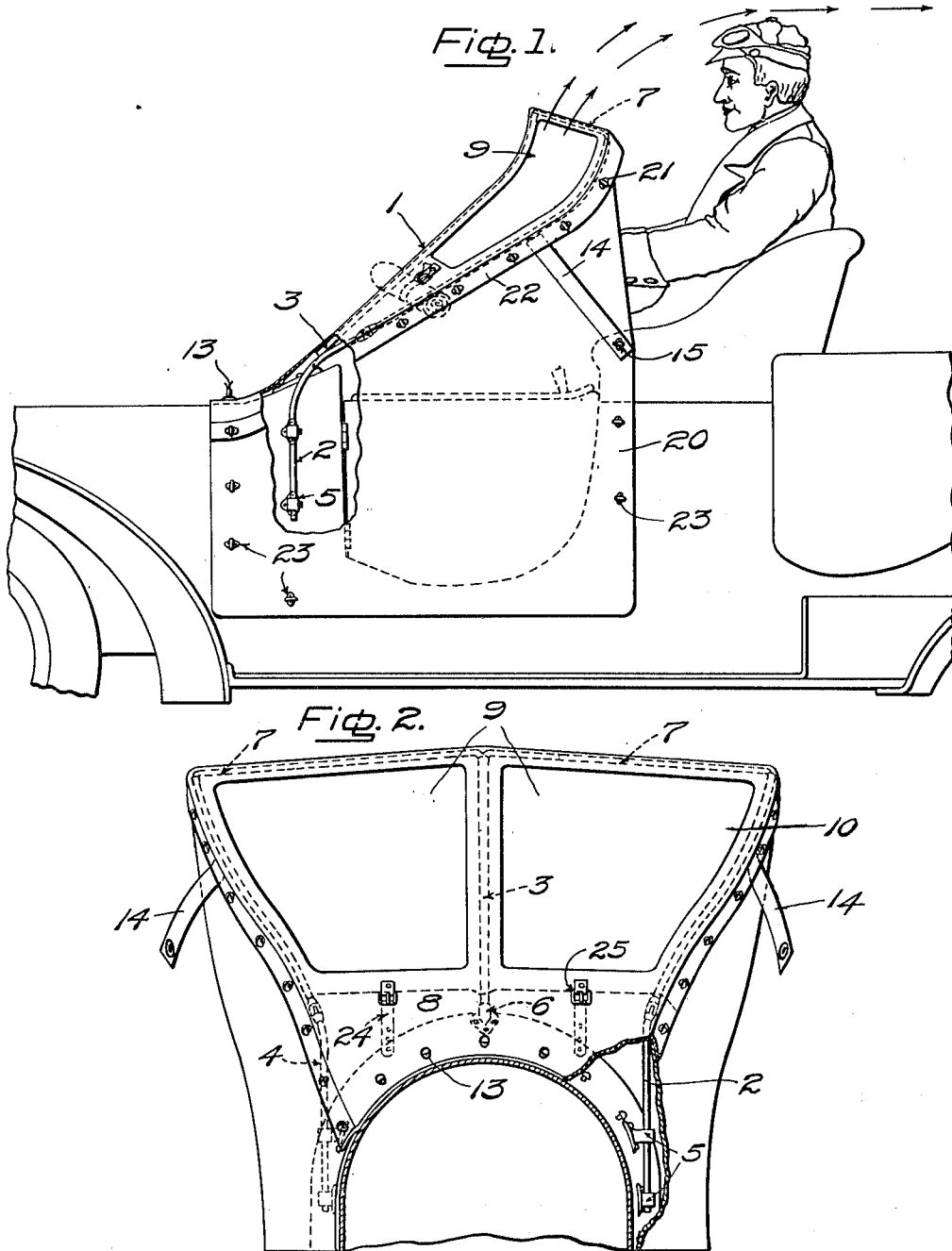
H. H. WHITE.  
WIND SHIELD.

APPLICATION FILED JAN. 3, 1910.

Patented Mar. 12, 1912.

1,020,336.

2 SHEETS—SHEET 1.



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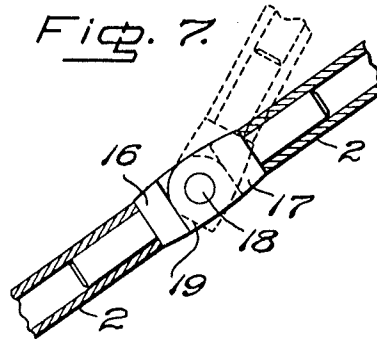
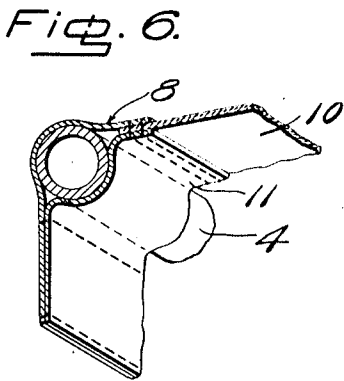
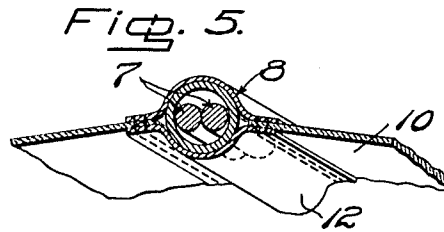
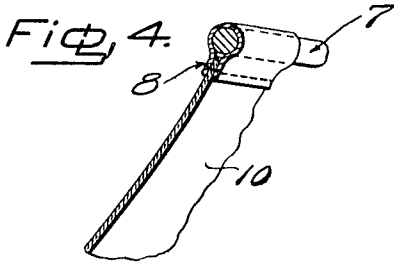
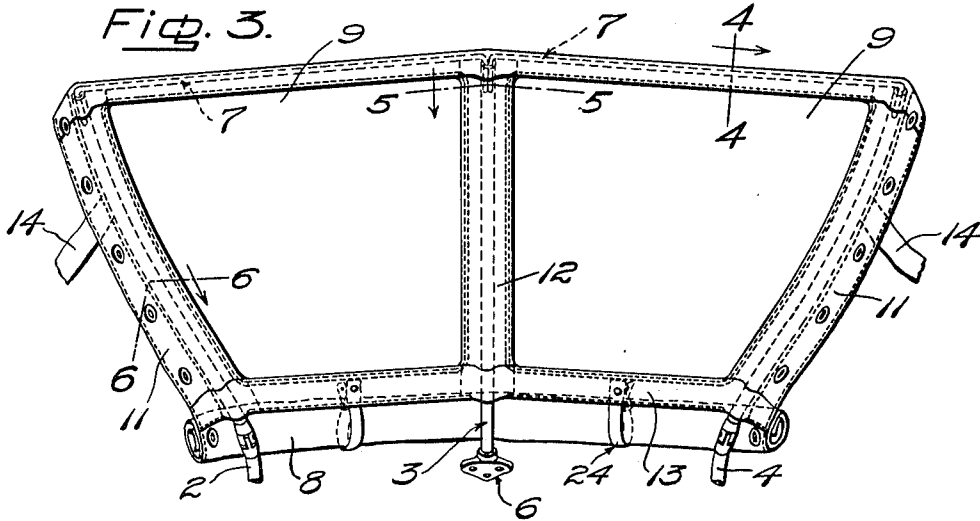
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# UNITED STATES PATENT OFFICE.

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WIND-SHIELD.

1,020,336.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed January 3, 1910. Serial No. 536,128.

*To all whom it may concern:*

Be it known that I, HERBERT H. WHITE, a citizen of the United States, residing at Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Wind-Shields; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to wind shields adapted for use on automobiles, and more particularly to a shield provided with a rearwardly inclined air deflecting surface arranged to direct the air striking against it up over the head of the driver, while allowing an unobstructed view of the road over the upper edge of the shield.

The object of the invention is to provide a shield of this character having a novel and improved construction whereby it is rendered more efficient and durable, and whereby it may be readily adjusted or modified to suit the conditions under which it is to be used.

To these ends the invention consists in the features of construction and combination of parts hereinafter described and set forth in the claims, the advantages of which will be obvious to those skilled in the art.

The various features of the invention will be readily understood from the accompanying drawings, and the following detailed description of the wind shield shown therein.

In the drawings, Figure 1 is a side view of a wind shield embodying the invention in its preferred form applied to an automobile; Fig. 2 is a front view of the shield; Fig. 3 is a rear view of the shield, with the side curtains removed, and the bottom part of the cover rolled up; Fig. 4 is a sectional detail on line 4—4, Fig. 3; Fig. 5 is a sectional detail on line 5—5, Fig. 3; Fig. 6 is a sectional detail on line 6—6, Fig. 3; and Fig. 7 is a detail sectional view of the knuckle joint in the side rods.

As shown in the drawings, the wind shield comprises a flexible cover 1 supported upon the rods 2, 3 and 4, which are rearwardly inclined over the space in front of the automobile seat, so that the cover presents an upwardly sloping surface below the line of vision for directing the air and any dust

or moisture carried thereby up over the heads of the occupants of the seat. The supporting rods are preferably formed of brass tubing, and have their front ends secured in brackets 5 and 6 which may be conveniently attached to the dash or forward part of the car body. The side rods 2 and 4 are preferably arranged somewhat to the rear of the center rod 3, so that the cover presents air deflecting surfaces sloping from the center toward the sides, and acting to give the air an outward as well as an upward flow over the upper edge of the shield. The rods are also given an upward bend or curve at their rear ends, in order that the air passing along the surface of the shield may be discharged over the upper edge of the shield in a direction to give the most efficient protection to the persons back of the shield. The upper ends of the rods are connected by cross-rods 7, the ends of which are bent at right angles and inserted in the ends of the tubular supporting rods. These rods serve to positively connect the free ends of the supporting rods, and also act as a truss for firmly supporting the center rod against the pressure exerted by the wind upon the surface of the shield which tends to spring the center of the shield backward.

The flexible cover, which may be made from any suitable flexible material, such, for instance, as is used for carriage tops, is preferably formed in part of transparent material, such as celluloid, so that the persons sitting back of the shield may look through the shield if they so desire. As shown, the cover comprises a sheet 8 of flexible material provided with two large openings 9 in its upper portion, which are closed by two sheets 10 of celluloid or other suitable transparent material. The side and bottom edges of the celluloid sheets 10 are held between the front sheet 8 and backing strips 11, 12, and 13, which are secured to the front sheet by stitching passing through the celluloid sheets. The upper edge of the sheet 8 is folded over the cross-rod 7, and is secured by stitching passing through the celluloid. This folded over upper edge of the cover thus forms a tube or casing along the upper edge of the cover which incloses the cross-rods, as well as forming a backing strip for securing the upper edge of the celluloid sheets to the front sheet. The stitching ex-

tending longitudinally of the center backing strip 12 is so arranged that this backing strip, in connecting with the opposing part of the front sheet, forms a tube or casing for surrounding the center supporting rod 3 and holding the upper part of the cover firmly on the rod. The backing strips 11 are also stitched or otherwise united along opposite sides of the side rods to form tubes or casings along the edges of the upper part of the cover which surround these rods and firmly hold the edges of the cover. The lower edge of the cover is secured to the car at the front of the dash by buttons 131 arranged to engage eyelets in the cover.

In order that the shield may be more firmly supported against the heavy air pressure incident to rapid driving of the car, means may be provided for springing the rear ends of the side rods downward and holding the rods under tension. The means which is preferably employed for this purpose consists of straps 14 secured to the side of the shield, and having their free ends detachably secured to the car body, as by buttons 15. The length of the straps, and arrangement of the buttons, is such that when the end of the strap is secured to the car body, the side rods are sprung downward and put under tension. They thus offer a greater resistance to the pressure of the wind against the shield, so that the tendency of the shield to vibrate when subjected to comparatively heavy and fluctuating air pressure, is overcome.

In applying the shield to certain styles of cars, access to the seat back of the shield is rendered inconvenient. In such cases it is preferred to provide one or both of the side rods with a knuckle joint which will enable the rear end of the rod to be turned upward, but will prevent relative movement of the parts of the rod out of alinement in the opposite direction. A preferred form of such joint shown in Fig. 7, consists of blocks 16 and 17 secured in the adjacent ends of the sections of the rod 2 (or 4), and connected by a pivot pin 18. The block 16 is slotted to receive a tongue 19 on the block 17, and the rear end of the tongue is arranged to abut against the end of the slot when the sections of the tube 2 are in alinement, as indicated in Fig. 7. The upper side of the tongue 19 is formed concentric with the pivot 18, so that the rear section of the rod 2 may be swung up about the pivot 18 when it is desired to enter or leave the seat back of the shield. When in use, the sections of the rod will be held firmly in alinement by the strap 14.

In order to further protect the occupants of the seat back of the shield in cold or inclement weather, side curtains 20 are provided, the upper edges of which are detachably secured by buttons and eyelets 21 to

side strips or welts 22 which extend along the side edges of the shield beyond the side rods 2 and 4, and are arranged to extend substantially at right angles to the front surface of the shield. The curtains are also detachably secured to the body of the car by buttons and eyelets 23, so that the curtain may be partially disconnected to give access to the seat, or may be wholly disconnected and removed when the weather conditions render their removal desirable.

In driving a car during warm weather, it is frequently desirable to secure a circulation of air, and still protect the faces of the occupants of the car from wind and dust. This result may be secured by removing the side curtains 20, and then detaching the lower edge of the cover 1 from the car body, and rolling it up to the lower ends of the tubular portions surrounding the supporting rods, the rolled up portion of the cover being secured in this position by straps 24 secured to the back of the cover and arranged to engage buckles 25 secured to the front of the cover. With the cover thus adjusted, a free space is provided below the rolled up portions of the cover through which the air may be circulated, and at the same time the air striking against the upper part of the cover will be deflected and pass up, over the heads of the occupants of the car thus protecting their faces from the wind and dust.

While it is preferred to employ the specific construction and arrangement of parts shown and described, it will be understood that this construction and arrangement is not essential, except so far as it is set forth in the claims.

I claim—

1. A wind shield comprising rearwardly inclined supporting center and side rods, devices for securing the rods in position in front of the seat of an automobile, a pair of rods, one of which flexibly connects one side rod to the center rod at their upper ends, and the other of which flexibly connects the other side rod to the center rod at their upper ends, a cover provided with tubular side edges and center portion surrounding the supporting rods, and devices for securing the lower end of the cover, substantially as described.

2. A wind shield comprising rearwardly inclined supporting side rods, a rearwardly inclined supporting center rod, devices for securing the rods in position in front of the seat of an automobile, a cross rod extending from the upper end of one of the side rods and hinged to the center rod, a cover secured over the rods, and a knuckle joint in the side rod carrying the cross rod to allow the rod to be turned up, substantially as described.

3. A wind shield for automobiles com-

prising rearwardly inclined supporting rods, devices for securing the rods in position in front of the seat of an automobile, cross rods connecting the upper ends of the supporting rods, a cover provided with a tubular upper edge surrounding the transverse rods and with tubular side edges and center portion surrounding the supporting rods, devices for detachably securing the lower end of the cover whereby the lower part of the cover may be rolled up, and devices for securing the rolled up part of the cover, substantially as described.

4. A wind shield comprising a pair of rearwardly inclined side supporting rods, devices for securing the rods in position in front of the seat of an automobile, a cover provided with tubular side edges surrounding the supporting rods, welts extending from the tubular side edges of the cover, side curtains, and devices for detachably securing the side curtains to the welts and to the sides of the car, substantially as described.

5. A wind shield comprising rearwardly inclined tubular supporting rods, devices for securing the rods in position in front of the seat of an automobile, cross rods having their ends bent at right angles and inserted in the upper ends of the supporting rods, a cover provided with tubular upper and side edges surrounding the side and cross rods and with a tubular center portion surrounding the center rod, a knuckle joint in one or both of the side rods for allowing the rods to be turned up and devices for normally

holding the parts of the rod in alinement, substantially as described.

6. A wind shield for automobiles comprising rearwardly inclined supporting rods, devices for securing the rods in position in front of the seat of an automobile, cross rods connecting the upper ends of the supporting rods, a cover provided with a tubular upper edge surrounding the transverse rods and with tubular side edge and center portion surrounding the supporting rods, welts along the side edges of the cover, side curtains, devices for detachably securing the side curtains to the welts and to the sides of the car, devices for detachably securing the lower end of the cover whereby the lower part of the cover may be rolled up, and devices for securing the rolled up part of the cover, substantially as described.

7. A wind shield comprising rearwardly inclined supporting rods, devices for securing the rods in position in front of the seat of an automobile, a cover provided with tubular casings surrounding the inclined rods along the upper part only of the rods, devices for detachably securing the lower end of the cover whereby the lower part of the cover may be rolled up to leave an open space at the bottom of the shield, and means for securing the rolled up part of the cover, substantially as described.

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