Jan. 16, 1923. 1,442,255.

R. DONER.

AUTOMOBILE SHADE.

FILED JAN. 3, 1922.

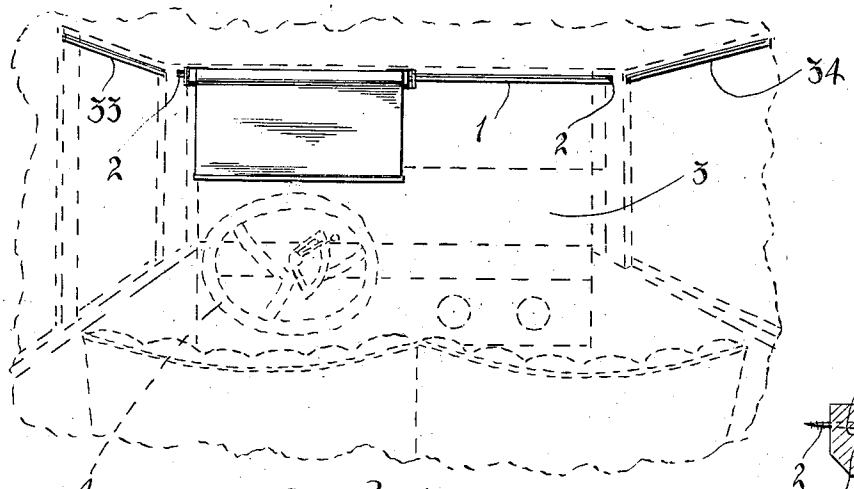



Fig. 1

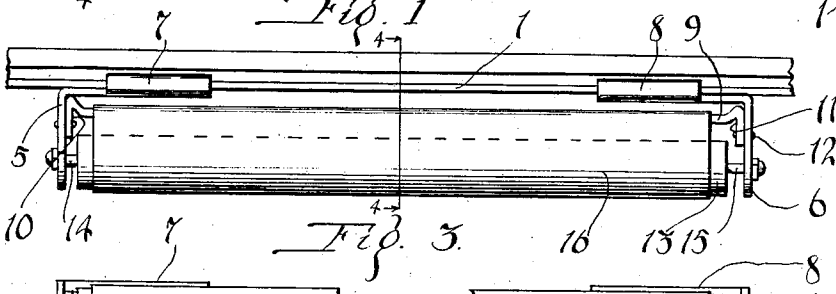



Fig. 3.

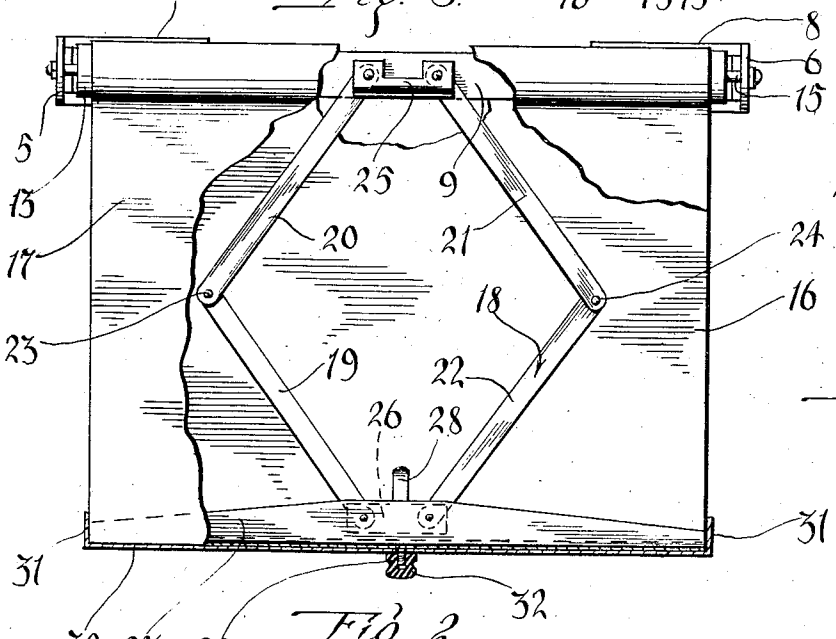



Fig. 2

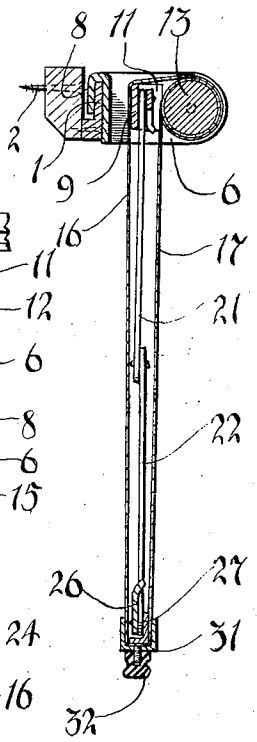



Fig. 4.

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# UNITED STATES PATENT OFFICE.

ROBERT DONER, OF CHICAGO, ILLINOIS.

## AUTOMOBILE SHADE.

Application filed January 3, 1922. Serial No. 526,696.

*To all whom it may concern:*

Be it known that I, ROBERT DONER, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Automobile Shades, of which the following is a full, clear, and exact description.

My invention relates to improvements in automobile shades, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide a device of the character described, in which a curtain shade of two loose plies is provided and the supporting frame interposed between the plies. This gives the complete device a neat and finished appearance.

A further object of my invention is to provide a device of the character described having a catch by means of which the curtain may be locked in its rolled position.

A further object of my invention is to provide a device of the character described, in which the curtain may be easily removed and exchanged for a new curtain.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which

Fig. 1 is a whole view of an embodiment of my invention operatively applied,

Fig. 2 is a front elevation of the device with a portion broken away to reveal the collapsible frame.

Fig. 3 is a top plan view of the mechanism illustrated in Fig. 2, and

Fig. 4 is a sectional view along the line 4—4 of Fig. 3.

My invention relates to an improvement over the structure disclosed in my application for patent filed in the United States Patent Office on February 7, 1921 and of which the Serial Number is 443,139.

In carrying out my invention, I make use of a rod 1, which is mounted by means of screws 2 in parallel relation to the upper frame of the windshield 3 of a motor vehicle 4. The rod 1 is substantially rectangular in cross section.

A pair of brackets 5 and 6 are slidably disposed upon the rod 1 by means of U-shaped runners 7 and 8, the runners 7 and 8 being an integral part of the brackets 5 and 6, respectively.

The brackets 5 and 6 are rigidly connected one to each end of a metal strap 9. For this purpose the strap 9 is provided with laterally bent portions 10 and 11 and rivets 12 are employed to fix the portions 10 and 11 to the brackets 5 and 6, respectively.

A shade roller 13 of the ordinary type having a spring against which the roller is turned is operatively supported by the brackets 5 and 6 adjacent their outer ends, as shown at 14 and 15.

A curtain shade comprising two loose plies 16 and 17 formed by doubling a single shade back on itself is arranged to be rolled up on the shade roller 13 so that its ends are close to the roller 13.

A collapsible frame 18 having the shape of a parallelogram is provided for lending rigidity to the shade when unrolled. The collapsible frame 18 is disposed intermediate the plies 16 and 17 of the shade so that it is invisible and not exposed to dust or to moisture. The frame 18 is composed of four rods or bars 19, 20. 21 and 22 which are pivotally mounted with respect to one another. The bars 19 and 20 are pivotally connected at 23 to one another and the bars 21 and 22 are pivotally connected to one another at 24. The opposite ends of the bars are connected so that the bars 20 and 21 are pivotally connected to a link 25, which link is securely fastened intermediate the length of the strap 9. The ends of the bars 19 and 22 are pivotally connected to the ends of a second link 26, which link is securely fastened to an angle strip 27, which in this case is made of brass. A spring clip 28 is formed integral the link 26 and is arranged to engage the link 25 when the frame 18 is collapsed, i. e., when the shade is rolled completely up on the roller 13 and in an inoperative position.

The shade is arranged to pass under the angle piece 27 and a stud bolt 29 is provided on the angle piece 27 and projects through the shade. A U-shaped ornamental bar 30 having its ends 31 closed, is placed upon the lower end of the shade and is secured thereto by means of an ornamental nut 32, which is arranged to engage the stud bolt 29.

Additional rods 33 and 34 are provided

on the inner side walls of the motor vehicle 4 so that the runners 7 and 8 may be placed thereon, if it is desired to shut off light from either of the two sides by means of the shade mechanism described.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. Normally, when not in use, the shade is rolled up tight upon the roller 13 and the clip 28 yieldably locks the frame 18 in a collapsed position. The clip 28 prevents the shade from unrolling by the weight of the frame 18 when the car passes over rough portions of the road. If light is entering a portion of the windshield 3 and it is desired to shield the eyes of the driver therefrom, the nut 32 is grasped in the hand and the shade is pulled down, releasing the clip 28 from the link 25. The weight of the frame 18 acting against the tendency of the spring in the roller to pull the shade up will bring about a balanced condition and the shade will remain in exactly the position to which it is drawn.

One of the important features of this device is that it is extremely neat in appearance and the operating mechanism is entirely concealed. It is also easy to replace the shade when it has become worn out.

Should the light shift from one side of the wind shield to the other, it is merely necessary to slide the runners 7 and 8 along the rod 1 to the opposite end of the wind shield. If the light changes to one of the two sides of the car, then the runners 7 and 8 are supported upon one of the two rods 33 and 34 and the device is used in precisely the same manner as described.

One of the important improvements of my invention is that the frame 18 is entirely enclosed and the device is therefore neat in appearance.

I claim:

1. A device of the character described, comprising a roller, a shade to be wound around said roller, said shade comprising two loose plies, and a collapsible reenforcing frame, interposed between the plies of said shade.

2. A device of the character described comprising a spring actuated roller, a curtain shade arranged to be wound upon said roller, said shade comprsing two loose plies, and a collapsible frame interposed between the plies of said shade for reenforcing said shade when unwound from said roller.

3. A device of the character described comprising a spring actuated roller, a curtain shade arranged to be wound upon said roller, said shade comprising two loose plies, a collapsible frame interposed between the plies of said shade for reenforcing said shade when unwound from said roller, and means associated with said frame for yieldingly locking said frame when collapsed, as when said shade is fully wound on said roller.

4. A device of the character described comprising a pair of brackets arranged to slide longitudinally upon a supporting rod, a strap connected intermediate said brackets, a spring actuated roller operatively mounted on said brackets, a shade comprising two loose plies arranged to be wound upon said roller, and a collapsible frame connected intermediate said strap and the outer end of said shade to reenforce and support said shade when unwound from said roller.

5. A device of the character described comprising a pair of brackets arranged to slide longitudinally upon a supporting rod, a strap connected intermediate said brackets, a spring actuated roller operatively mounted on said brackets, a shade comprising two loose plies arranged to be wound upon said roller, a collapsible frame connected intermediate said strap and the outer end of said shade to reenforce and support said shade when unwound from said roller, and a locking means for yieldably locking said frame in a collapsed position when said shade is wound upon said roller.

ROBERT DONER.