Jan. 15, 1929.

1,698,871

S. M. BEATTY

SHIELDING DEVICE FOR VEHICLES

Filed Aug. 15, 1927

2 Sheets-Sheet 1

Fig. 1.

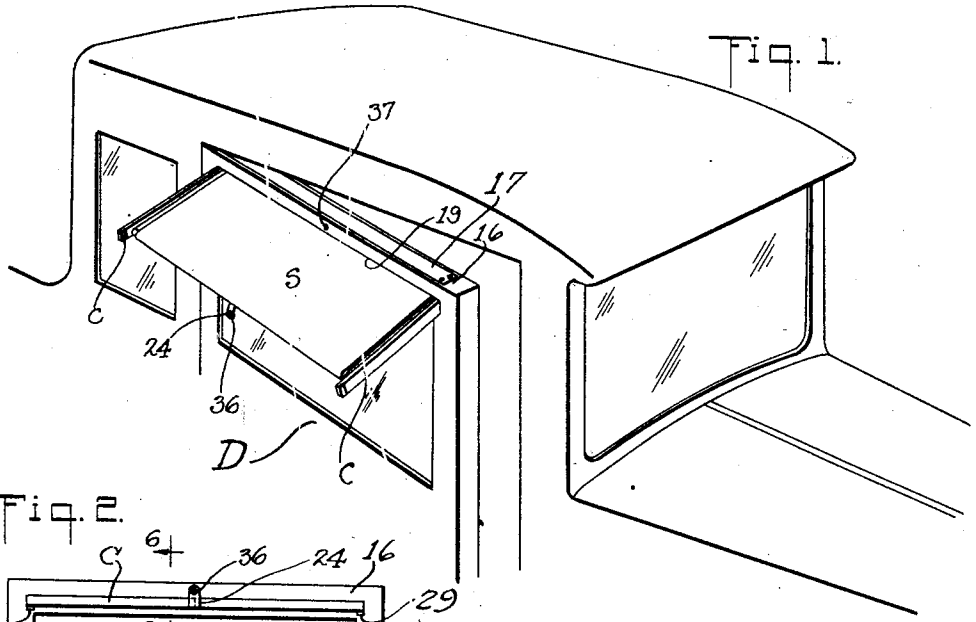


Fig. 2.

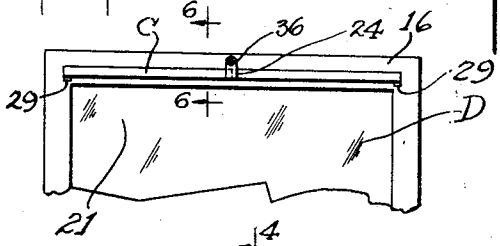
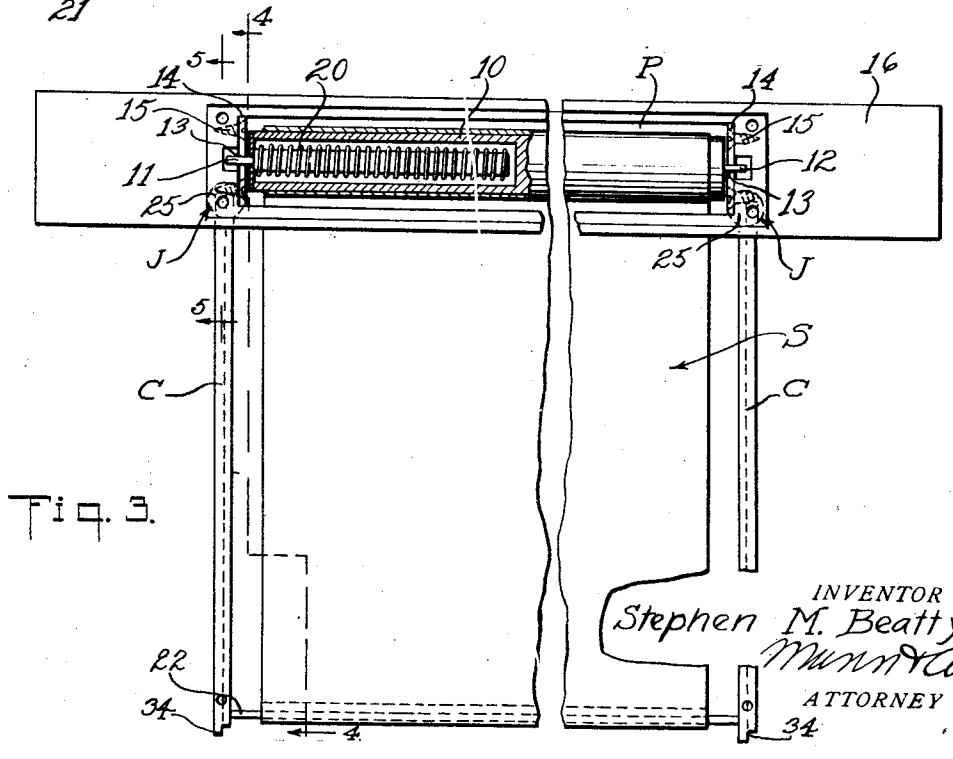


Fig. 3.



INVENTOR

Stephen M. Beatty;

Munn & Co.

ATTORNEY

Jan. 15, 1929. 1,698,371

S. M. BEATTY

SHIELDING DEVICE FOR VEHICLES

Filed Aug. 15, 1927 2 Sheets-Sheet 2

Fig. 4

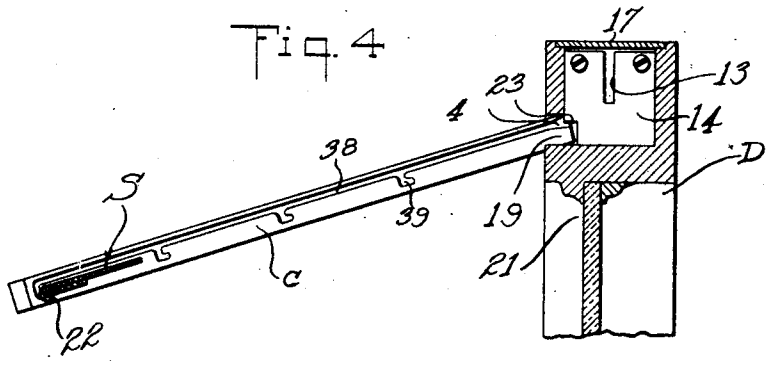
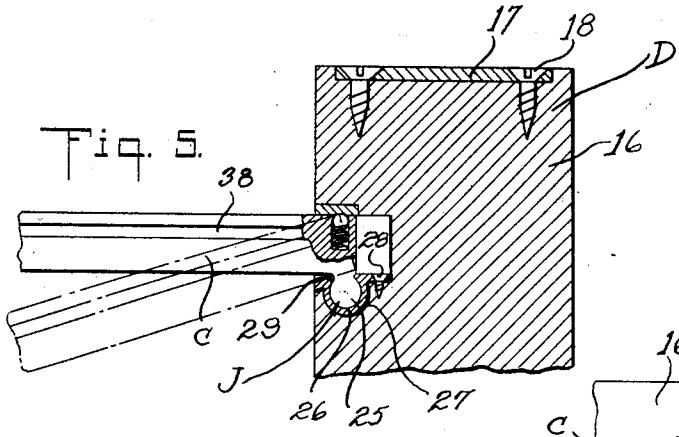


Fig. 5.



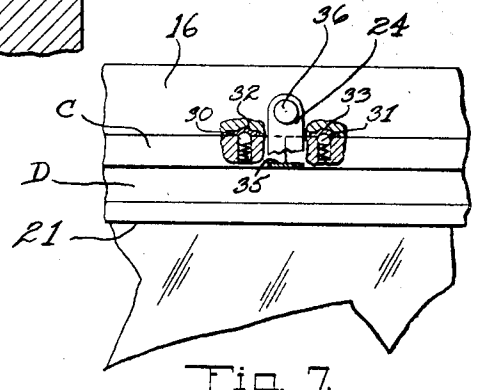
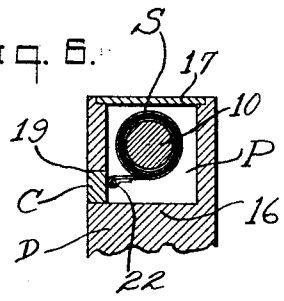


Fig. 7.

Fig. 6.



INVENTOR
Stephen M. Beatty;
BY Munn & Co.
ATTORNEY

Patented Jan. 15, 1929. 1,698,871

UNITED STATES PATENT OFFICE.

STEPHEN M. BEATTY, OF LOS ANGELES, CALIFORNIA.

SHIELDING DEVICE FOR VEHICLES.

Application filed August 15, 1927. Serial No. 213,054.

My invention relates to and has for a purpose the provision of a shielding device, particularly adapted, although not necessarily for use in shielding the occupants of a motor vehicle of the closed body type against the direct rays of the sun, and which is associated with a window opening of the vehicle in such manner that during inclement weather an occupant of the car at an open window will be shielded from the weather and yet will have an unobstructed view through the window opening, as is particularly desirable for the operator of the vehicle who can allow the window at his side to remain open for arm signalling of his intentions in traffic without suffering discomfort.

It is also a purpose of my invention to provide a shield of the above described character, which, while permanently associated with the body of the vehicle can be entirely concealed from view when not in use so as not to detract from the appearance of the body, yet can be exposed and rigidly supported in shielding position with the utmost ease and dispatch.

I will describe only one form of shielding device for vehicles embodying my invention and will then point out the novel features in claims.

In the accompanying drawings

Figure 1 is a view showing in perspective one form of shielding device embodying my invention applied to a door of a motor vehicle and illustrating the device in shielding position with respect to the window opening in the door.

Figure 2 is a fragmentary view illustrating a portion of the vehicle door in side elevation with my device applied thereto and occupying a non-shielding position.

Figure 3 is an enlarged plan view of the shielding device shown in Figure 1.

Figures 4 and 5 are sectional views taken respectively on the lines 4—4 and 5—5 of Figure 3 and looking in the direction of the arrows.

Figure 6 is a sectional view taken on the line 6—6 of Figure 2 and looking in the direction of the arrows, and

Figure 7 is a fragmentary view illustrating a latching means for closures embodied in my invention.

Referring specifically to the drawings in which similar reference characters designate similar parts in each of the several views, my invention in its present embodiment comprises a shield designated generally at S which constitutes a curtain or awning in the present instance in the form of a rectangular sheet of waterproof fabric or other suitable flexible material secured at one of its ends to a roller 10 having trunnions 11 and 12 seating in vertically disposed sockets 13 formed in a pair of plates 14 secured by screws 15 to the end walls of a rectangular shaped pocket P formed in the top horizontal rail 16 of a door D of the closed body type of motor vehicle. The top of the pocket is closed by a cover plate 17 detachably secured to the rail 16 by screws 18, while its outer side is provided with an entrance opening 19 in the form of an elongated slot extending to the outer side of the door, and through which the shield S is adapted to be extended.

The roller 10 is hollow for a portion of its length and the trunnion 11 is in the form of a rod extending freely into the hollow portion of the roller. The outer end of the trunnion 11 is reduced and of angular cross section so that when seated in its respective socket 13 it will prevent rotation of the trunnion, while the roller is rotatable on the trunnion 11 and can rotate with its other trunnion 12 in the respective socket 13.

A coil spring 20 surrounds the trunnion 11 and is secured at one end to the roller and at its other end to the trunnion so as to urge the roller to rotate in one direction to normally wind the shield S upon the roller so that it is normally disposed wholly in the pocket P and occupies a non-shielding position with respect to the window opening 21 in the door D. A rod 22 is secured to the free end of the shield and has its ends projecting beyond the side edges of the shield so as to engage the recessed portion 23 of the plates 14 and thus limit the winding of the shield upon the roller. A flexible tab 24 is secured to the free end of the shield and provides means by which the shield can be manually unwound from the roller 10 against the action of the spring 20 and extended through the entrance opening 19 so that the shield will project outwardly from the door to occupy a shielding position with respect to the window opening 21 of the door.

A pair of closures designated generally at C and in the form of flat rectangular bars are mounted on ball and socket joints J in the pocket P adjacent its ends, the balls 25 of the joints being secured to the underside

of the closures, while the sockets 26 fit in recesses 27 formed in the rail 16 and are secured in position by screws 28. This universal mounting of the closures permits them to be swung to a closed position in which they completely close the entrance opening 19 to conceal the shield from view when wound upon the roller, or to be swung outwardly from the door to a right angular position with respect to the door and then vertically downward to the inclined position shown in Figure 5, wherein they seat in recesses 29 formed in the rail 16 so that further downward movement of the closures as well as lateral swinging movement thereof is positively prevented. Spring pressed balls 30 and 31 are mounted in the upper sides of the closures adjacent each of their ends, the balls 30 seating in sockets 32 secured in the upper wall of the opening 19 and serving to prevent outward tilting movement of the closures as they are swung to their right angular positions, while the balls 31 seat in sockets 33 also secured in the upper wall of the opening 19 and co-operating with the balls 30 to latch the closures in closed position. The meeting ends of the closures are rabbeted as indicated at 34 so that when in closed position the closures are flush with the outer surface of the door D, while their undersides are recessed as indicated at 35 to provide a slot through which the tab 24 freely extends when the closures are in closed position. The free end of the tab 24 is provided with the socket 36 of a two part snap fastener, while the head 37 of the fastener is secured to the door D above the opening 19 so that when the bars are in closed position the tab can be detachably secured to the door in a vertical position in overlying relation to the closures and thus present a neat appearance.

When the closures C occupy their open or inclined positions they constitute a pair of arms for supporting the shield S in any one of a plurality of downwardly inclined shielding positions with respect to the window opening 21. To this end the closures are provided on their inner or confronting sides with longitudinally extending grooves 38 open to the pivoted ends of the closures and terminating short of their free ends, while at corresponding intervals along the length of the closures are a plurality of L shaped notches 39 communicating with the lower sides of the grooves. The projecting ends of the rod 22 are adapted to traverse the grooves 36 and to be received in any one of the notches 39 so as to latch the shield S in any one of a plurality of shielding positions and thus releasably secure the shield in its adjusted position against the urging action of the roller spring 20 to return the shield to its non-shielding position in the pocket P. The open ends of the grooves 38 are flared as indicated at 40 to facilitate the entrance of the projecting ends of the rod 22 into the grooves.

The operation of the device is as follows: Assuming that the shield S is fully wound on the roller 10 and the closures C are in closed position with the tab 24 secured to the door D, as shown in Figures 2 and 7, the tab is first grasped by the operator and released from the door. The operator now pulls upon the tab which slides through the slot formed by the recesses 35 in the closures, thus exerting a pull upon the shield S to cause its rod 22 to strike the inner sides of the closures C and swing the closures about their ball and socket mountings J, thus initiating the opening movement of the closures. The closures are now grasped by the operator and swung to their downwardly inclined positions, after which the projecting ends of the rod 22 are inserted into the open ends of the grooves 38 and then into the particular notches 39 desired, so as to latch and rigidly support the shield in one of its shielding positions. It will be clear that upon reversing the above operations the device can be quickly restored to its original position so that when not in use it will be entirely concealed except for the tab 24 and the joint between the flush surfaces of the closures C and the door D.

While I have described the device as being associated with a door of the vehicle it will be understood that it could as readily be applied to the frame of the door at a point above the latter or above the windshield of the vehicle.

Although I have herein shown and described only one form of shielding device for vehicles embodying my invention, it is to be understood that various changes and modifications may be made therein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim.

1. A device of the character described comprising a roller adapted to be revolubly mounted in a pocket disposed above a window opening in a vehicle door, a shielding element comprising a flexible curtain secured to the roller and adapted to be wound upon the roller to occupy a non-shielding position in the pocket but capable of being unwound from the roller to project through an opening in the pocket and outwardly from the door so as to occupy a shielding position, a pair of arms adapted to be mounted for movement on the door to occupy one position in which they are adapted to co-operate in completely closing the opening in the pocket to entirely conceal the shielding element from view and another position in which they are adapted to project outwardly and downwardly from the door, and co-acting

means on the arms and curtain by which the latter is adapted to be supported in its shielding position from the arms.

2. A device of the character described comprising a spring roller adapted to be revolubly mounted in a pocket disposed above a window opening in a vehicle door, a flexible curtain secured at one end to the roller and normally tending to wind upon the roller under the action of the spring of the latter, said curtain adapted to be unwound from the roller to project through an opening in the pocket and outwardly from the door so as to occupy a shielding position with respect to the window opening in the door, a pair of arms adapted to be mounted for movement on the door to occupy one position in which they are adapted to form closures for the pocket in the door and another position in which they are adapted to project outwardly and downwardly from the door to provide supports for the curtain, a rod secured to the free end of the curtain and projection beyond the side edges of the latter, said arms having longitudinally extending grooves on their confronting sides which the projecting ends of the rod are adapted to traverse, and notches at intervals along the length of and communicating with the grooves in which the projecting ends of the rod are adapted to be received to latch the curtain to the arms in any one of a plurality of shielding positions.

3. A device of the character described comprising a spring roller adapted to be revolubly mounted in a pocket disposed above a window opening in a vehicle door, a flexible curtain secured at one end to the roller and normally tending to wind upon the roller under the action of the spring of the latter, said curtain adapted to be unwound from the roller to project through an opening in the pocket and outwardly from the door so as to occupy a shielding position with respect to the window opening in the door, a pair of arms adapted to be mounted for movement on the door to occupy one position in which they are adapted to form closures for the pocket in the door and another position in which they are adapted to project outwardly and downwardly from the door to provide supports for the curtain, a rod secured to the free end of the curtain and projecting beyond the side edges of the latter, said arms having longitudinally extending grooves on their confronting sides which the projecting ends of the rod are adapted to traverse, and notches at intervals along the length of and communicating with the grooves in which the projecting ends of the rod are adapted to be received to latch the curtain to the arms in any one of a plurality of shielding positions, the free end of the curtain having a tab and the free ends of the arms being recessed to co-operate in providing an opening when the arms form closures for the pocket, through which the tab is adapted to project for the purpose described.

4. A device of the character described comprising a roller adapted to be revolubly mounted in a pocket in a support, a shielding element comprising a flexible curtain mounted on the roller and adapted to be wound on the latter to occupy a non-shielding position in the pocket but capable of being unwound from the roller to project through an opening in the pocket and outwardly from the support so as to occupy a shielding position, a pair of arms, and means by which the arms are adapted to be mounted for movement to occupy one position wherein the arms are capable of co-operating to completely close said opening in the pocket to entirely conceal the shielding element from view when wound upon the roller, and another position wherein the arms co-operate to support the shielding element in shielding position.

5. A device of the character described comprising a roller adapted to be revolubly mounted in a pocket in a support, a shielding element comprising a flexible curtain mounted on the roller and adapted to be wound on the latter to occupy a non-shielding position in the pocket but capable of being unwound from the roller to project through an opening in the pocket and outwardly from the support so as to occupy a shielding position, a pair of arms, and means by which the arms are adapted to be mounted for movement to occupy one position wherein the arms are capable of co-operating to completely close said opening in the pocket to entirely conceal the shielding element from view when wound upon the roller, and another position wherein the arms co-operate to support the shielding element in shielding position, said mounting means for the arms comprising sockets, and balls on the arms mounted in the sockets.

STEPHEN M. BEATTY.