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F. P. PRAWALSKY

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WINDOW SCREEN FOR CLOSED AUTOMOBILES

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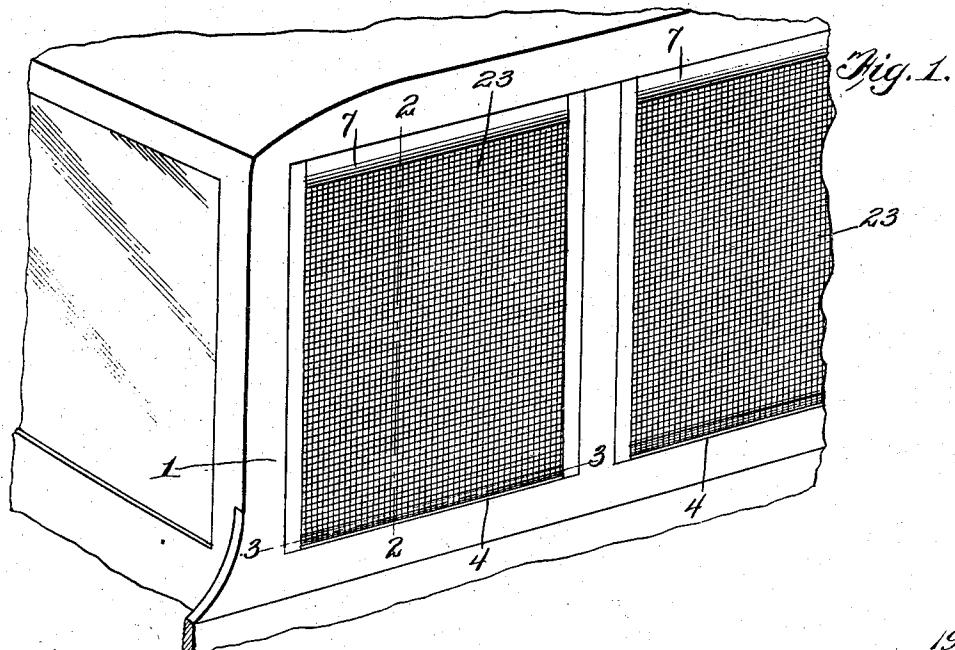


Fig. 2.

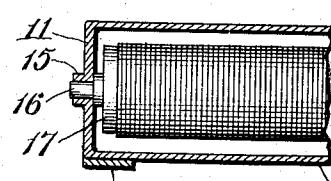
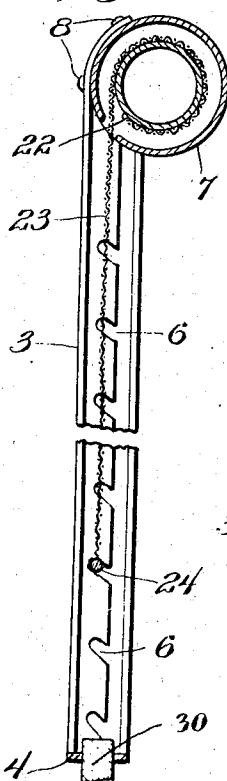


Fig. 4.

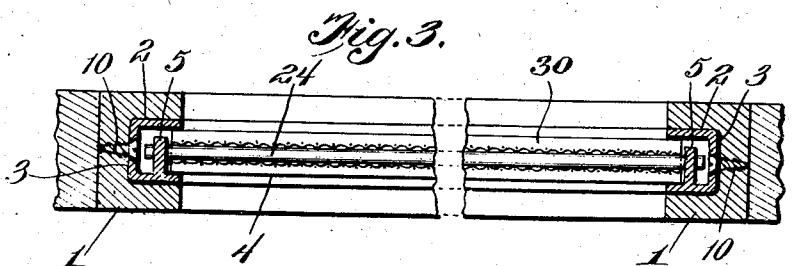
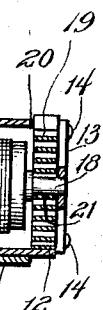


Fig. 3.

Inventor  
F. P. Prawalsky  
J. H. Munne Talbert  
Atty

## UNITED STATES PATENT OFFICE

FREDRICK P. PRAWALSKY, OF SWANVILLE, MINNESOTA; MARTHA PRAWALSKY, ADMINISTRATRIX OF SAID FREDRICK P. PRAWALSKY, DECEASED, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO PETER P. TYVOLL, OF MINNEAPOLIS, MINNESOTA AND ONE-THIRD TO HOWARD L. FISCHER, OF ST. PAUL, MINNESOTA

## WINDOW SCREEN FOR CLOSED AUTOMOBILES

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Many tourists are now using closed automobiles not only for traveling but also for sleeping, and during warm weather they are not only greatly troubled with insects, such as flies, bugs and mosquitoes, but are also troubled with sand and other particles in the dust which blows through the window, and at the present time the sashes are closed which makes the interior of the automobile 10 very hot during warm weather.

With the present invention, it is the purpose to provide a rolling window screen including guides which may be either constructed in the window frame during the 15 construction of the automobile body or applied thereto subsequently, the screen to be constructed from a relatively closely woven fabric, either metal or silk, such as will permit the air to enter and yet preclude small 20 particles, such as grains of sand or the like, as well as insects, such as flies, bugs and mosquitoes.

Another purpose is to provide a rolling screen carried by a tensioned roller operatively mounted in a cylinder carried at the 25 upper ends of the side guides, with a longitudinal slot to permit of the screen being easily raised or lowered, the lower end of the screen having a suitable bar operatively 30 mounted in guides which are arranged in the jambs of the window frame, there being means in the guides for retaining the bar or rod at the lower end of the screen in different positions.

Still another purpose is to provide a rolling screen for this purpose which may be manufactured at a relatively low cost and sold at a reasonable profit, it being obvious that the guides may be constructed in the 40 jambs of the window frame during the construction of the automobile with the cylinder detachably mounted at the upper end, or the guides and the cylinder including the screen made as an article of manufacture, 45 so that it may be applied to automobiles now in use or those subsequently manufactured without the guides.

A further purpose of the present invention is to eliminate the use of the screw-eye 50 and cord now used on each side of the win-

dow for operating a silk curtain. It is also obvious that the guides may be constructed separately from the cylinder and screwed in the window casing or jamb and the cylinder subsequently attached.

The invention comprises further features and combinations of parts to be hereinafter set forth, shown in the drawings and claimed.

In the drawings:

Figure 1 is a view in perspective of a portion of a sedan or coupé body, showing the window casing or frame with the rolling screen applied in accordance with the invention, showing the screen lowered.

Figure 2 is a vertical sectional view the same on line 2-2 of Figure 1, showing the screen raised.

Figure 3 is a transverse sectional view on line 3-3 of Figure 1, showing the transverse rod or bar at the lower end of the screen engaged with the guides.

Figure 4 is a longitudinal sectional view through the cylinder at the top of the guides.

Referring to the drawings, 1 designates the window casing or frame and mounted in the channels 2 of the jambs of the window frame or casing are guides 3. The lower ends of the guides extend to and are connected with the cross member 4 which forms the window sill through which the window-pane 30 extends and is adapted to slide between the sides of the guides 3 in the channels 2. The window-pane 30 is adapted to be raised and lowered through the member 4 in the ordinary well known manner and I have not illustrated the means for raising and lowering the window in the drawings, only a portion of the window-pane is illustrated. The guides are U-shaped in cross section and outstanding from certain of the walls of the guides are flanges 5 which have notches 6. The notches are U-shaped and are directed inwardly and downwardly of the closed body of the automobile.

Mounted at the upper ends of the guides is a cylinder 7 to which the upper ends of the guides are secured, as at 8. In fact, the

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upper ends of the guides terminate in ears 9 conforming to the cylindrical contour of the cylinder for the purpose of receiving the securing means. Suitable screws 10 are used for fastening the guides in the channels of the jambs of the window frame or casing.

This construction of guides and their connections to the cylinder permit them to be constructed in the channels of the jamb of the window frame or casing at the time of making the automobile body or to permit them to be attached subsequently. In the former case, the guides and the cylinder may be mounted in the window frame at one time, that is, the cylinder attached to the guides. In the latter case, the cylinder may be first positioned at the top of the window frame or casing and the guides subsequently secured in place by the screws and then their 20 lugs or ears attached to the cylinder by screws.

The cylinder is closed at one end, as shown at 11, and secured to the other open end 12 is a cross bar 13. The cross bar is fastened 25 to the cylinder by screws or the like 14. The closed end 11 of the cylinder has a bearing 15 for the pintle 16 of a roller 17 while the cross bar 13 is provided with a bearing for the other pintle 18 of the roller.

30 Mounted in one end of the cylinder is a spiral spring 19, one bent end thereof being attached in a slot 20 of the cylinder, the other end being attached at 21 to the pintle 18. The cross bar 13 prevents displacement 35 of the convolutions of the spiral spring in one direction while the shoulder caused to be formed by the pintle 18 retains the convolutions in place against displacement in the opposite direction.

40 Secured to the roller, as at 22, is a curtain 23 constructed of any suitable mesh material, such as brass wire fabric or silk gauze fabric, of a weave such as will permit of the entrance of air and at the same time preclude particles, such as sand and the like, and insects, such as flies, bugs and mosquitoes. The lower end of the curtain or screen is provided with a transverse rod 24, the ends of which engage the guides which are 45 secured in the channels of the jambs. The ends of the rod 24 ride upon the outstanding flange and, when the curtain or screen is lowered to the desired position, its ends may engage with certain of the opposite 50 notches. In this manner, the curtain or screen may be held in different adjusted positions, either lowered to the bottom of the window or disposed at any intermediate position between the top and bottom of the window. When the screen or curtain is lowered, the roller rotates against the action of the spiral spring and when the ends of the transverse rod of the curtain are disengaged 55 from the notches, the tension of the spring acts to raise the curtain and cause it to wind

on the roller. The opposite edges of the curtain or screen also operate in the guides so as to preclude insects from working their way to the interior of the body of the automobile.

The invention having been set forth, what is claimed is:

1. A slide guide for a spring roll screen including, a channel member, an inwardly extending flange upon one side of said channel member, notch means upon said flange for engaging a rod on the screen, said flange being spaced from the open edges of said channel member to provide a window pane sliding channel.

2. A slide guide for a spring roll screen including a channel, an inwardly extending flange on one side of said channel extending in close proximity to the other side thereof, a narrow screen rod channel between said flange and said other side of said channel, the free edges on said channel member extending beyond said flange and rod channel to provide a window channel.

3. A slide guide for a spring roll screen including a channel, an inwardly extending flange member on one side of said channel member, spaced from the open edges thereof to provide a window pane channel between said open edges, said flange extending toward the other side of said channel to provide a narrow screen rod channel, and notches in said flange to accommodate said rod.

4. A slide guide for a spring roll screen including a channel member, an inwardly extending flange spaced from the open edges of said channel member on one side of said channel member to provide a screen rod channel and a window pane channel formed by the open edges of said channel member.

5. A slide guide for a screen and window pane including a channel member, the open edges thereon forming a slide guide for a window pane, a flange on one side of said channel member partially closing off the open side of said channel member, and a narrow screen rod channel between said flange and the other side of said channel member offset from the center of the window pane channel.

In testimony whereof he affixes his signature.

FREDRICK P. PRAWALSKY.

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