W. J. GOELZ.

CURTAIN.

APPLICATION FILED MAR. 31, 1915.

1,167,554.

Patented Jan. 11, 1916.

2 SHEETS—SHEET 1.

Fig. 1

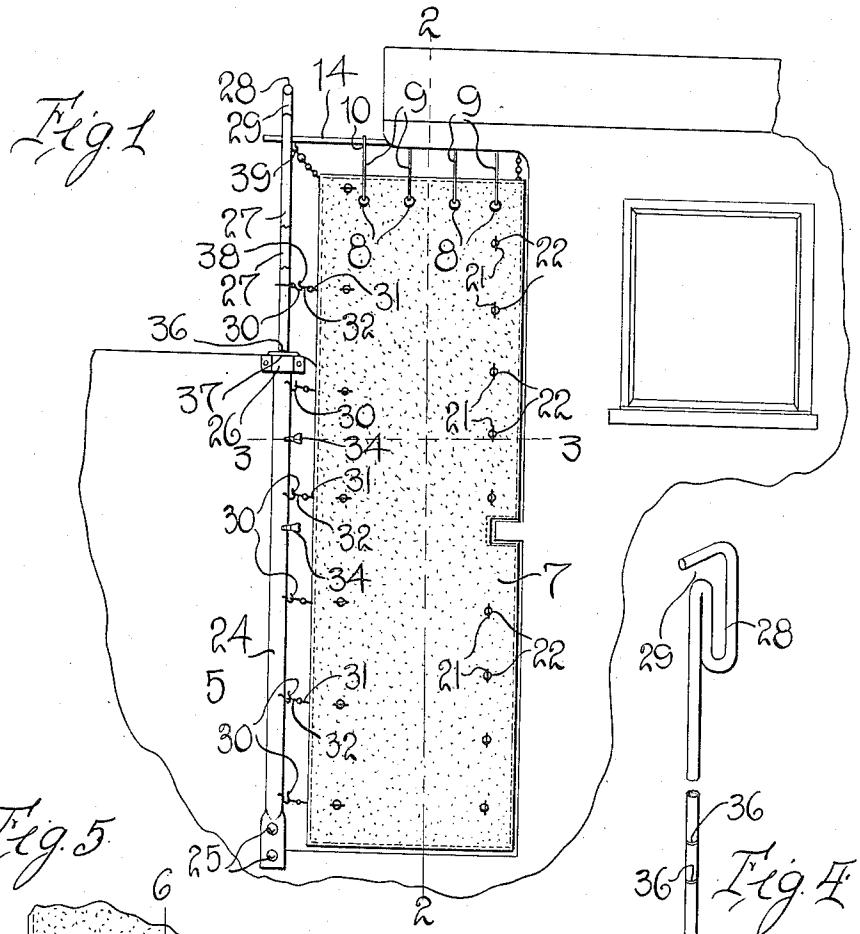
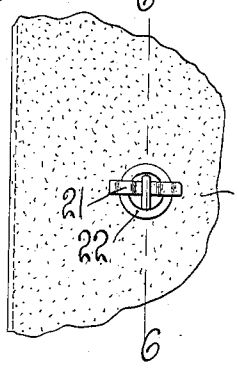


Fig. 5



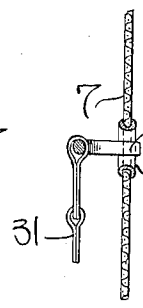


Fig. 6

Fig. 4

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2 SHEETS—SHEET 2.

Fig. 2

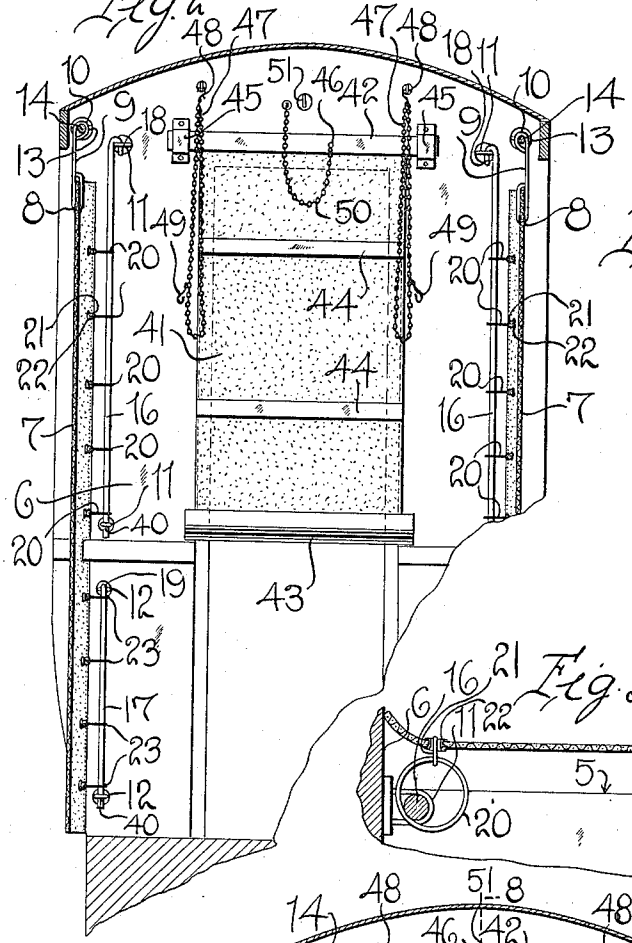


Fig. 8

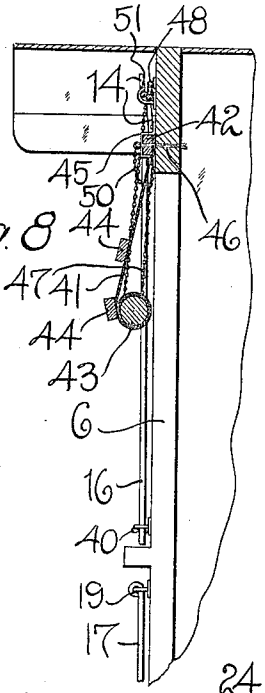


Fig. 3

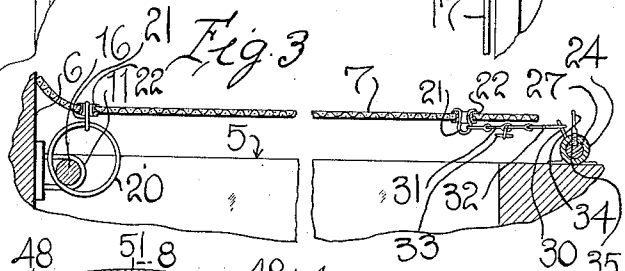
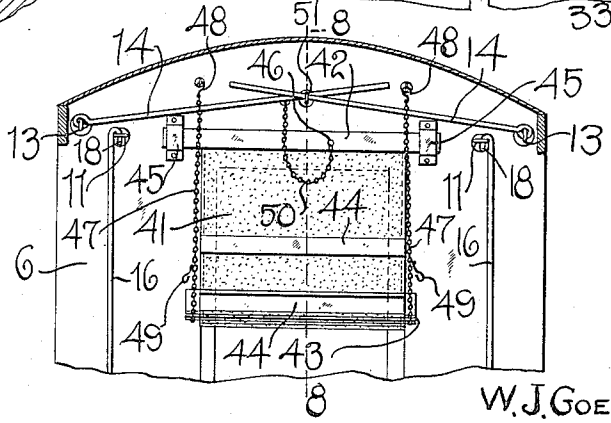


Fig. 7



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Application filed March 31, 1915. Serial No. 18,373.

To all whom it may concern:

Be it known that I, WILLIAM J. GOELZ, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Curtains, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in curtains and more particularly to means for mounting or attaching vehicle curtains.

The invention has for its primary object to provide a curtain for vehicle bodies which will effectually close the entrance to the interior of the vehicle during storms, simple and novel holding means being provided to prevent blowing of the curtain by high winds and thus affording protection to the driver from the elements.

The invention has for another very important object to provide means for hanging or mounting the curtain in place whereby the curtain may be easily and quickly moved to permit of the unobstructed entrance or descent of the driver to or from the vehicle, or may be very readily completely detached.

The invention has for an additional object to provide an improved mounting of the curtain supporting means which, when the curtain is not in use, will not be in the way or, in any manner, constitute an obstruction.

The invention has for another object to provide an improved drop curtain for the front of the vehicle body which may be very readily adjusted to close any desired portion of the opening in the body wall.

With the above and other objects in view, my invention consists in the novel features of construction, combination, and arrangement of parts to be hereinafter more fully described, claimed, and illustrated in the accompanying drawing, in which,

Figure 1 is a side elevation showing my improved curtain and mounting therefor; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is a section taken on the line 3—3 of Fig. 1; Fig. 4 is a detail perspective view of the vertically adjustable supporting rod; Fig. 5 is an enlarged fragmentary elevation of the curtain; Fig. 6 is a section taken on the line 6—6 of Fig. 5; Fig. 7 is an elevation showing the adjustable drop curtain and illustrating the hanger rods for the side curtains disposed in their inoperative positions; and Fig. 8 is a section taken on the line 8—8 of Fig. 7, the drop curtain being partly raised.

In the accompanying illustration of my invention, I have shown the same mounted upon the body of a vehicle; but it will be understood, as the description proceeds, that the device is applicable as well in all other instances where it is desired to provide a curtain or screen which will afford a weather proof closure and, at the same time, may be easily and quickly removed from its supports when the circumstances may require.

In the drawing, 5 designates the side walls of a vehicle body, and 6 the front wall thereof. The side walls are provided with the usual entrances, and in the front wall an opening is also provided so that the driver of the vehicle may obtain a clear view. The side entrance is adapted to be closed by means of the curtains, indicated generally by the numeral 7. These curtains are preferably constructed of heavy canvas or other suitable water proof material, and each curtain is provided in one of its ends with a series of spaced eyelets or gromets 8. In these gromets, the elongated metal loops 9 are engaged, each loop terminating at one end in an eye 10. In the drawing, I have shown the curtain as applied to the cab of a locomotive, and at one side of the entrance to the cab, the upper and lower vertically alined pairs of bearing eyes 11 and 12, respectively, are secured to the body wall. Above the uppermost eye 11, an additional eye 13 is secured to said wall, in which one end of a hanger rod 14 is loosely engaged.

16 and 17 designate the removable retaining rods for the curtain, said rods being provided upon one of their ends with the reversely bent hooks 18 and 19, respectively. The longer retaining rod 16 is adapted to be engaged through the upper pair of bearing eyes 11 and through a series of rings 20 which are attached to the body of the curtain 7 adjacent one edge thereof. As a convenient and inexpensive means for attaching these rings to the curtain, I utilize the split resilient loops 21 which are disposed through metal eyelets 22 secured to the curtain and have their extremities bent in opposite directions and securely clenched upon the metal eyelet. The lowermost retaining rod 17, which is adapted for engagement through the lower pairs of eyes 12, is also adapted to

receive a second series of rings 23 which are secured to the curtain 7 in the manner above described.

At the opposite side of the entrance opening of the body of the vehicle and to the exterior thereof, a vertically disposed guide tube 24 is secured by means of bolts 25 at its lower end and by the clamping bracket plate 26 at its upper end. A vertically adjustable rod 27 is telescopically engaged in this tube and is formed upon its upper end with an elongated vertically extending loop 28 having an entrance, indicated at 29. Through this entrance, the free end of the hanger rod 14 is adapted to be inserted and engaged in the lower end of the loop. In the tubular guide 24, a series of spaced hooks 30 are secured, and with the same, rings 32 on the ends of the chains 31 are adapted to be detachably engaged. These chains also carry the additional rings 33 which are employed when the tubular guide 24 is located nearer to the side of the entrance opening to the vehicle body, or otherwise positioned with respect to the ring, as may be necessitated owing to the exigencies of each particular case. The vertically adjustable rod 27 is held in its adjusted position with respect to the guide tube 24 by means of a plurality of set screws 34 which have threaded engagement in the wall of the guide tube and are adapted to be received in the notches or recesses 35 formed in the periphery of the adjustable rod. This rod may also be provided with a plurality of index marks upon its periphery, as shown at 36, any one of which is adapted to be disposed at the upper end of the tubular guide to indicate that the notches 35 are in proper position to receive the respective clamping screws 34. In this manner, it will be understood that said rod may be very easily and quickly adjusted in the tube 24. Upon the upper end of the tube 24, a washer plate 37 is disposed to prevent the entrance of foreign matter to the interior thereof, which would interfere with the free vertical sliding movement of the rod 27. A hook 38 is also engaged upon said rod and a similar hook 39 engaged in the lower end of the loop 28, said hooks being provided for the purpose of receiving additional connecting rings 32 on the upper portion of the curtain. The chains 31 are attached to metal loops secured to the body of the curtain in the manner above explained.

The rods 16 and 17 are held against vertical movement in the eyes 11 and 12 by means of the cotter pins, indicated at 40, which are disposed through the lower ends of said rods. One of the rings 20 and 23, respectively, is engaged upon the lower ends of the respective rods beneath the lowermost eyes 11 and 12, whereby the curtain is prevented from sliding upwardly upon said rods.

The vehicle body is also provided with a front drop curtain, as indicated at 41. This curtain is securely attached at one of its ends to a rectangular bar 42 and at its other end to a cylindrical rod or pole 43. A number of wood cleats 44 are also secured to the flexible curtain, intermediate of its ends, to afford the necessary weight. The bar 41 and pole 42 are of greater length than the width of the curtain and project beyond the opposite longitudinal edges thereof. The ends of the bar 41 are adapted to be engaged in the rectangular brackets 45 which are secured to the front wall of the vehicle body above the opening therein. This bar 41 is provided with a transverse opening to receive a cotter pin 46 which is also adapted to extend through an opening in the body wall of the vehicle. Thus, the curtain bar 41 is securely held against a longitudinal shifting movement in the brackets. To the body wall, at points above the opposite ends of the brackets 42, the ends of chains 47 are suitably attached. The free end of each chain is provided with a hook 48 and additional hooks 49 are carried by each chain intermediate of its ends. These chains may be looped and the terminal hooks or the hooks 49 thereof engaged with certain of the chain links and in these looped chains, the ends of the curtain pole 43 are adapted to be engaged. In this manner, it will be understood that the curtain may be partially rolled up and supported. The cotter pin 46 is attached to one end of a chain 50 to obviate the loss thereof, the other end of said chain being suitably attached to the wall of the vehicle.

To the front wall of the vehicle, between the bracket members 42 and slightly above the same, a hook 51 is secured. This hook is provided for the purpose of receiving the free ends of the hanger rods 14 for the side curtains, when the latter are not being used, as clearly shown in Fig. 8 of the drawing. Thus, the hanger rods are disposed entirely out of the way, and when the side rods 16 and 17 are removed and the rods 27 lowered in the guides 24, it will be appreciated that none of the several supports upon which the curtains are hung, will in any way, constitute an obstruction to the free entrance to the vehicle by the driver or his egress therefrom.

From the foregoing description, taken in connection with the accompanying drawing, the construction, manner of operation, and several advantages of my improved curtain support will be clearly and fully understood. By simply detaching the rings 32 from the hooks 30 on the guide tube 24, the hanger loops 9 at the top of the curtain may be shifted longitudinally upon the rod 14 and said curtain compactly disposed entirely at one side of the entrance opening to the vehi-

cle. In stormy weather, this entrance opening is securely closed to exclude rain from the interior of the vehicle, by simply attaching the several rings to the respective hooks 30, as clearly shown in Fig. 1, so that the curtain cannot be blown by the wind at either vertical edge thereof sufficiently to permit of the entrance of the rain. In case of fire or other emergency, the curtains may be very easily and quickly completely removed from the body of the vehicle by simply detaching the rings 32 and removing the cotter pins 40 so that the rods 16 and 17 can be removed from the eyes 11 and 12. The free end of the hanger rod 14 is then disengaged from the loop 28 so that the eyes 10 of the loops 9 will slide off of said rod. The front drop curtain can be as readily removed by simply withdrawing the cotter pin 46 so that the bar 41 can be shifted in the brackets 42 and removed therefrom.

It will be seen, from the foregoing, that I have provided a highly serviceable and convenient curtain hanger or support which may be produced at comparatively small manufacturing cost and readily applied to the ordinary vehicle or other structure. It is, of course, apparent that a greater or less number of the hanger loops 8, as well as the attaching rings 32, may be provided and, if desired, a single side rod 16 may be employed, extending the entire length of the curtain. The invention is also susceptible of various other changes in form, proportion and arrangement of the several elements employed, and it is, therefore, to be understood that I reserve the privilege of resorting to all such legitimate modifications as may be fairly embodied within the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is:—

1. The combination with a structure having an entrance opening, of a curtain detachably secured along one of its vertical edges at one side of said opening, a hanger rod loosely mounted at one of its ends upon the structure, means for detachably and slidably connecting the upper end of the curtain to the hanger rod, means mounted upon the structure at the opposite side of said opening to removably receive the other end of the hanger rod and provided with attaching devices to which the other free vertical edge of the curtain is adapted to be connected, and additional means to receive the free end of the hanger rod and support the same in an inoperative position when the curtain is removed.

2. The combination with a structure having an entrance opening, of a curtain, means for detachably securing said curtain along one of its vertical edges at one side of the entrance opening, a hanger rod loosely mounted at one of its ends at the corresponding side of said opening, a vertically adjustable supporting rod mounted upon the structure at the opposite side of said opening and provided with means to receive and support the free end of the hanger rod, means connected to the upper end of the curtain slidably and removably engaged upon the hanger rod, fastening means for the other vertical edge of the curtain to secure the same in its closed position over the opening, means for securing the supporting rod in its adjusted operative position or in an inoperative position, and additional means to receive the free end of the hanger rod and support the same in an inoperative position at one side of the entrance opening when the curtain is removed.

3. The combination with a structure provided with an opening in one of its walls, of a curtain and means for detachably securing the same along one of its vertical edges upon said structure at one side of the opening, a hanger rod loosely mounted at one of its ends upon said structure at the corresponding side of the opening, a vertical guide secured to the wall of the structure upon the opposite side of said opening, a support vertically adjustable in said guide and provided upon its upper end with means to removably receive the free end of the hanger rod, means for securing the support in its adjusted position in the guide, means connected to the upper end of the curtain having slidable and removable engagement upon the hanger rod, means for detachably fastening the free vertical edge of the curtain to the supporting rod and said guide, and additional means to receive the free end of the hanger rod and support the same in an inoperative position at one side of the entrance opening when the curtain is removed.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM JAKOB GOELZ.

Witnesses:
TIFFANY LANGE,
ANDREW J. SHOUDY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."