

No. 712,970.

Patented Nov. 4, 1902.

J. J. RUSSELL, JR.
STORM SHIELD ATTACHMENT FOR VEHICLES.

(Application filed Apr. 29, 1902.)

(No Model.)

Fig. 1.

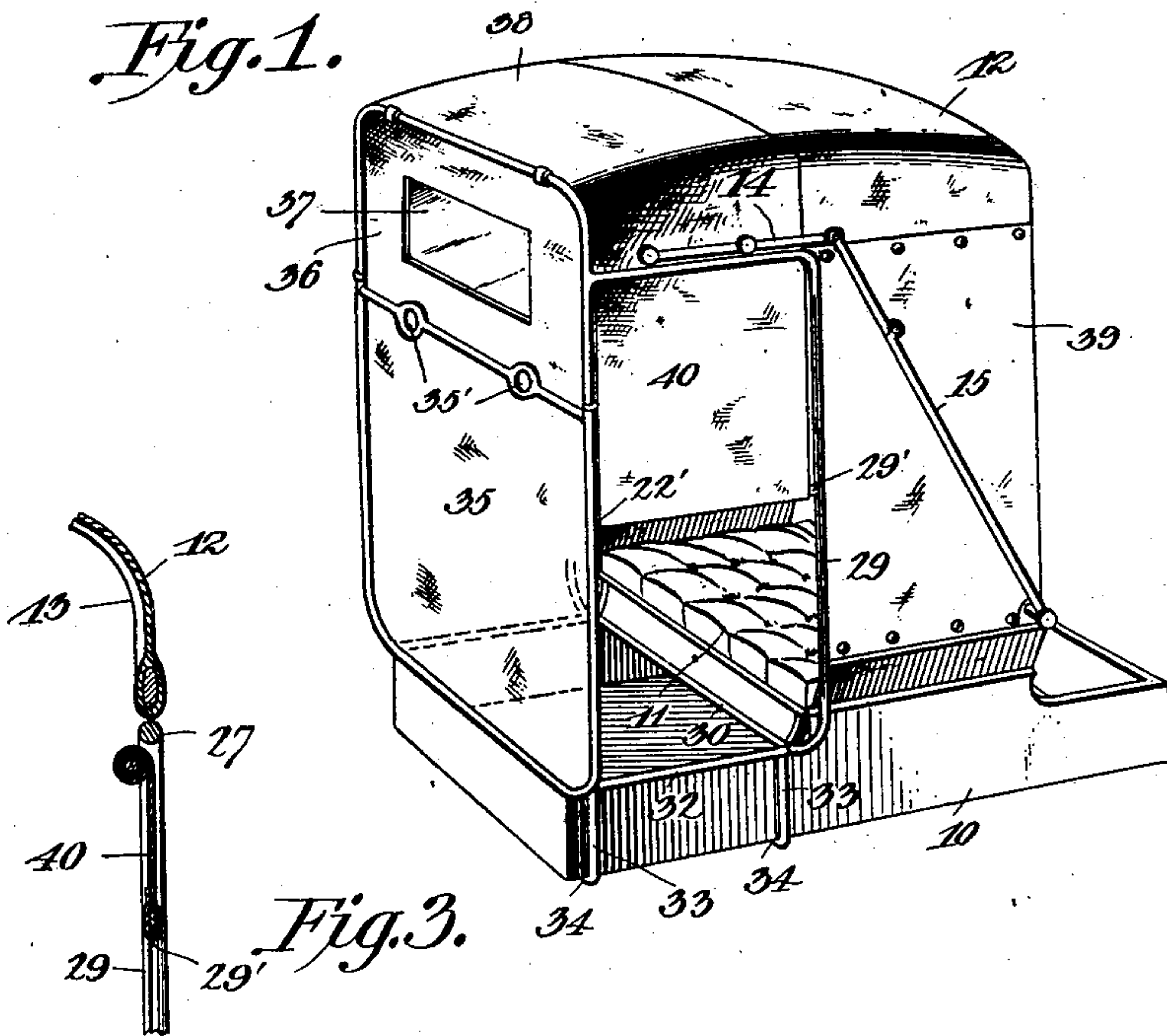


Fig. 3.

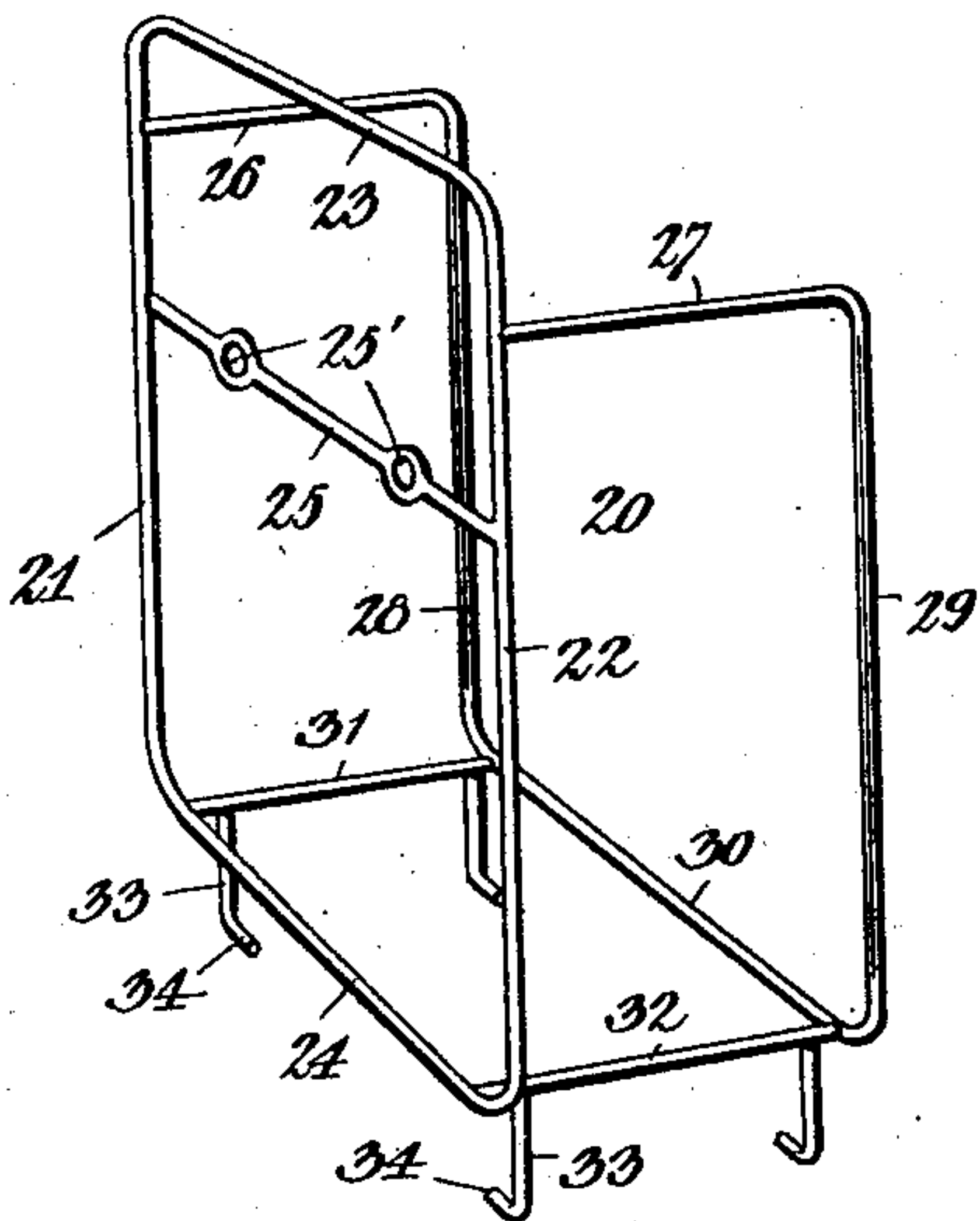


Fig. 2.

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. RUSSELL, JR., OF DEEPWATER, MISSOURI.

STORM-SHIELD ATTACHMENT FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 712,970, dated November 4, 1902.

Application filed April 29, 1902. Serial No. 105,166. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. RUSSELL, Jr., a citizen of the United States, residing at Deepwater, in the county of Henry and State of Missouri, have invented a new and useful Storm-Shield Attachment for Buggies, of which the following is a specification.

This invention relates to improvements in buggy-top attachments commonly known as "storm-fronts."

The object of this invention is to provide a detachable vehicle-front which is adapted to completely inclose an open-front vehicle, such as a top-buggy, and transform it into a vehicle possessing all the advantages of a closed carriage.

The invention consists in a supporting-frame having curtains or shields movably attached thereto and adapted to be connected to the body of the buggy and also to the buggy-top and forming an extension of the buggy-top.

The invention consists, further, in a measuring-frame adapted to be adjusted to the buggy to indicate the form of the permanent framework for supporting the inclosing curtains.

The invention consists, further, in certain novel features of the construction, as hereinafter shown and described, and specifically pointed out in the claims.

The device is adapted to all forms of open-front vehicles, either with or without folding-tops; but for the purpose of illustration it is shown in the drawings attached to an ordinary top-buggy of the kind known as a "box-buggy."

Figure 1 of the accompanying drawings represents a perspective view of a buggy body and top of ordinary form with this improved front applied thereto. Fig. 2 represents a perspective view of the framework of this improved storm-front detached. Fig. 3 represents an enlarged sectional detail of the curtain and adjacent portion of the frame.

The same reference-numerals indicate corresponding parts in all the figures.

This improved detachable front is shown applied to a top box-buggy of ordinary form, in which 10 represents the body, 11 the seat, and 12 the top, supported on the bows 13 and

provided with folding levers 14 and 15, all of the usual and ordinary construction.

The supporting-frame 20 of this improved front consists of two approximately vertical posts or rods 21 and 22, connected at their upper ends by a transverse rod 23. This rod 23 is preferably made integral with the rods 21 and 22 and is preferably rounded at the connecting-corners to correspond with the curve of the front bow of the buggy-top; but it may be welded or brazed thereto. The lower ends of the front rods 21 and 22 are curved inwardly toward each other and connected by a rod 24, which is also preferably made integral therewith. An intermediate transverse bar 25 preferably connects the rods 21 and 22 at a point above their centers and is provided with openings, as 25', to correspond with rein-openings in the covering hereinafter to be described. Leading rearwardly from the front posts 21 and 22, near their tops and in alinement with the bottom edge of the top 12, are two bars 26 and 27, which extend rearwardly a predetermined distance to span the space between the front rods 21 and 22 and the front edge of the seat 11 or to a point a little to the rear of said front edge. These lateral bars 26 and 27 are then bent downward at right angles and merge into upright rods 28 and 29, which run parallel with the front rods 21 and 22 and are curved inward toward each other at their lower ends on the same plane with the curved ends of the front rods 21 and 22, and they are connected by a transverse bar 30, which is preferably made integral therewith; but it may be welded or brazed thereto, if desired. The front rod or post 21 and the rear vertical rod 28 are connected at their lower ends by a laterally-extending brace-bar 31, and the rods 22 and 29 are connected by a similar bar 32, which runs parallel with the rod 31. These bottom rods 24, 30, 31, and 32 form an approximately rectangular frame which is adapted to fit the front of the buggy-box and rest on the upper edge thereof, the dashboard being preferably removed when this frame is attached to the buggy. This frame 20 is provided with means for detachably clamping it to the buggy-box, and, as shown, these means comprise four depending rods,

as 33, preferably secured to the four lower corners of the frame, and are provided with feet, as 34, intumed at right angles to the rods 33 for engaging the bottom of the buggy, the height of said rods, as 33, being sufficient to span the space between the top edge and the bottom of the buggy-box. The feet, as 34, engage the buggy-bottom in any desired manner; but they preferably act in conjunction with the rods resting on the top edge of the box as clips or clamps to hold the frame against vertical displacement.

Within the area between the bars 21, 22, 24, and 25 is supported a curtain 35 of any suitable material and which may be secured to said bars in any desired manner. The space above the transverse bar 25 is provided with a movable closure, (indicated at 36,) which may be in the form of a movable curtain or a frame covered with curtain material and hinged to the frame, or with a glass window 37, or arranged in any other suitable manner.

Attached to the transverse bar 23 and also to the lateral rearwardly-extending bars 26 and 27 and embracing the forward portion of the top 12 is a hood or shield 38, which forms a closure between the supporting-frame and the top of the buggy and assists in holding the frame in place. Side curtains, as 39, will also be attached to the sides of the buggy and to the bars 28 and 29, and thereby replace the ordinary side curtains of the buggy. Additional side curtains 40 will be arranged to fill the space between the bars 21 28 and 22 29, as shown, these curtains being preferably mounted on the ordinary spring-rollers employed for similar purposes, but of sufficient strength to insure the requisite action upon the increased length of the curtains, and they are provided at their lower edges with the usual brace-stick, the opposite ends of which engage grooves in the vertical supporting-rods, as shown at 22' 29', and when the curtains are lowered they follow the curvature of said posts, which causes them to shed the water instead of conveying it into the buggy-box, as would be apt to be the case were the rods made straight at their lower ends instead of curving inwardly toward the inside of the buggy-box. These curtains are preferably mounted on the inside of the frame 20, as shown. These spring-actuated curtains permit them to be raised and lowered quickly and easily to allow the occupant of the vehicle to get in and out without coming in contact with the wet curtains or necessitating the unbuckling or removal thereof, as is the case with the ordinary side curtain or storm-front.

The front curtain 35 is provided with reinforcement holes, as 35', which register with the holes, as 25', in the cross-bar 25, said bar acting as a support for the reins and preventing the sagging of the curtain.

The frame 20 will preferably be formed of metal rods or bars welded or brazed at their juncture; but they may be made of wood or other suitable material and will be varied in form to adapt it to the outlines of the buggy top and body to which it is to be applied, and it may be fastened in any suitable manner to the bows of the buggy-top.

The curtain-supporting framework can be made light and strong and abundantly capable of withstanding all the strains to which it would be subjected when in use.

I claim as my invention—

1. A supporting device for storm-shields for vehicles, comprising an approximately rectangular frame supported upon the vehicle-box in front of the seat and provided with depending arms having intumed ends engaging the under side of said vehicle-box, and frames rising from, supported by and connected with said base-frame.

2. A supporting device for storm-shields for vehicles comprising an approximately rectangular base-frame supported upon the vehicle-box in front of the seat and having means for temporarily securing it in position, a front frame rising vertically from said base-frame and having inwardly-curved lower ends connected with the front corners of said frame, and side frames, each including one of the side bars of the vertical frame, one of the side bars of the base-frame, an upright, curved at its lower end and disposed in the same plane with and parallel to the proximate side bar of the vertical frame, and a top bar connecting the latter below the upper end thereof with the upper end of the rear side bar.

3. In a device of the class described, a supporting base-frame, a vertical front frame rising therefrom, and auxiliary side frames, the vertical members of which are curved inwardly at their lower ends and grooved in their inner sides, in combination with roller-curtains slidingly engaging the said grooved side members, and shield-curtains detachably supported upon the compound frame.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN J. RUSSELL, JR.

Witnesses:

JAMES H. KENNEDY,
HENRY HEARN.