No. 684,095. Patented Oct. 8, 1901.

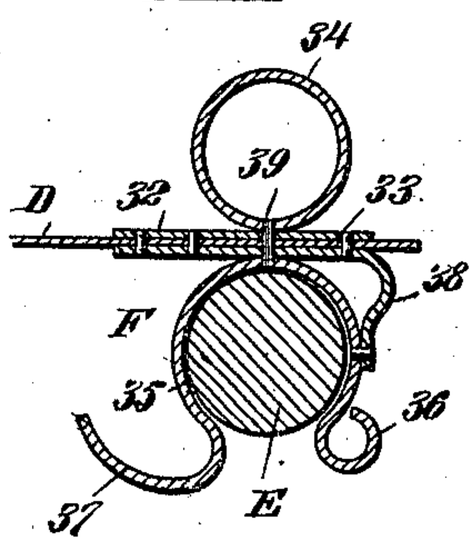
A. A. PRALL.

STORM FRONT FOR BUGGIES.

(Application filed Mar. 12, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 6.



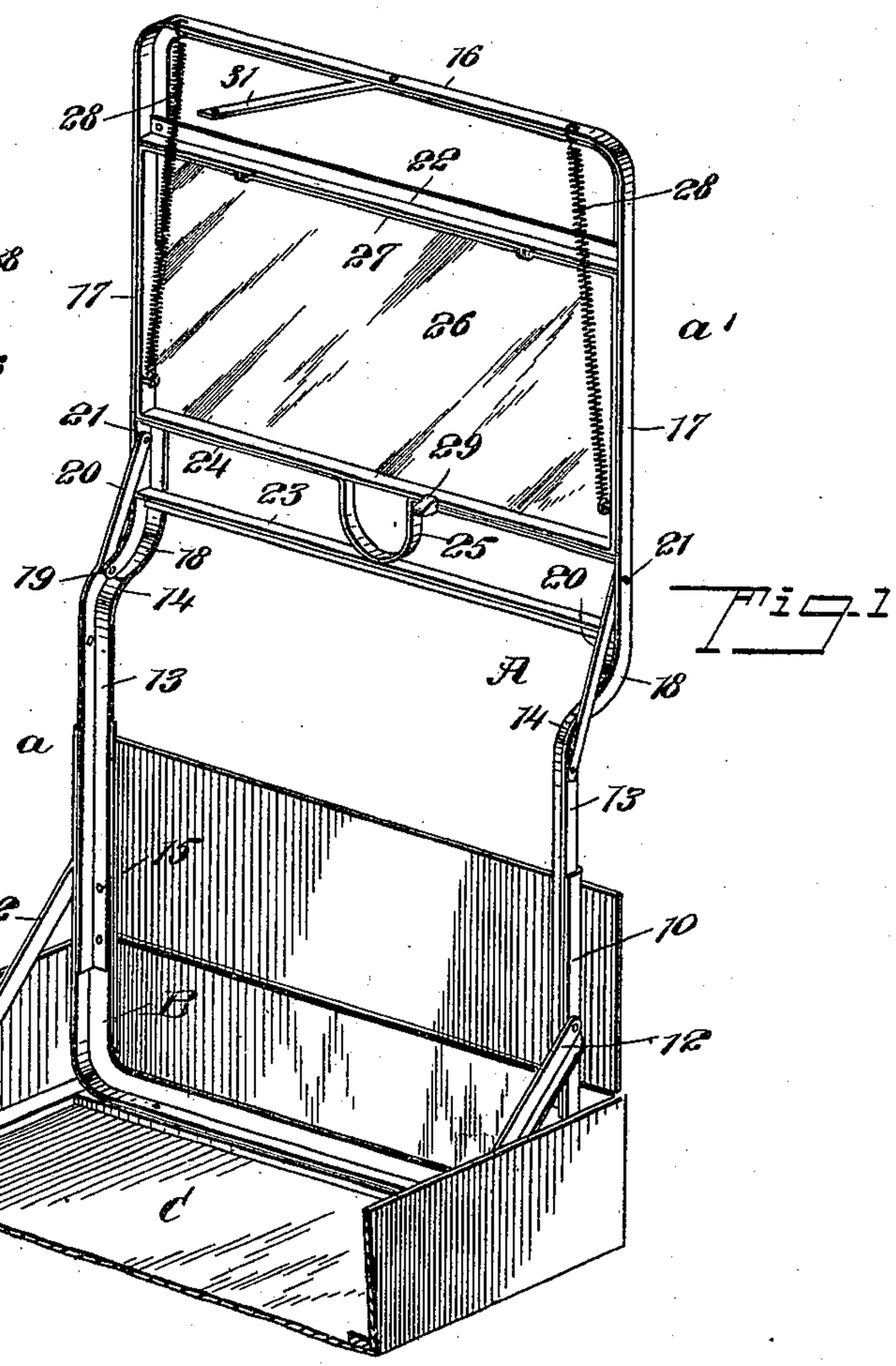
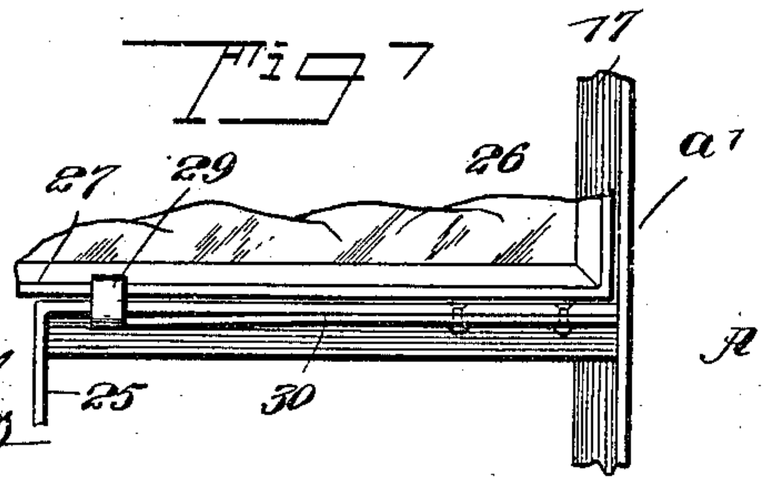


Fig. 1.

Fig. 7



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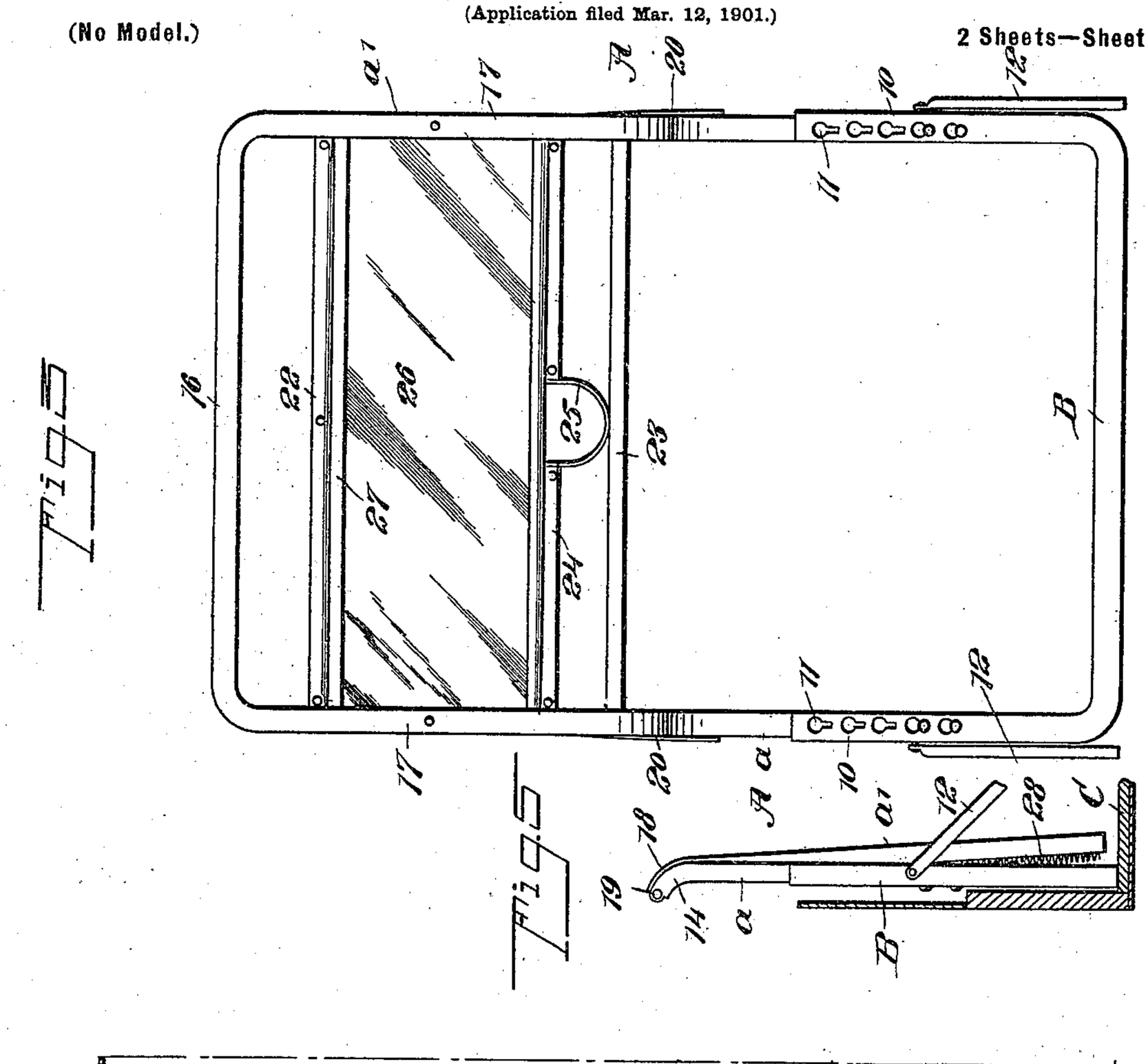

Fig. 1.

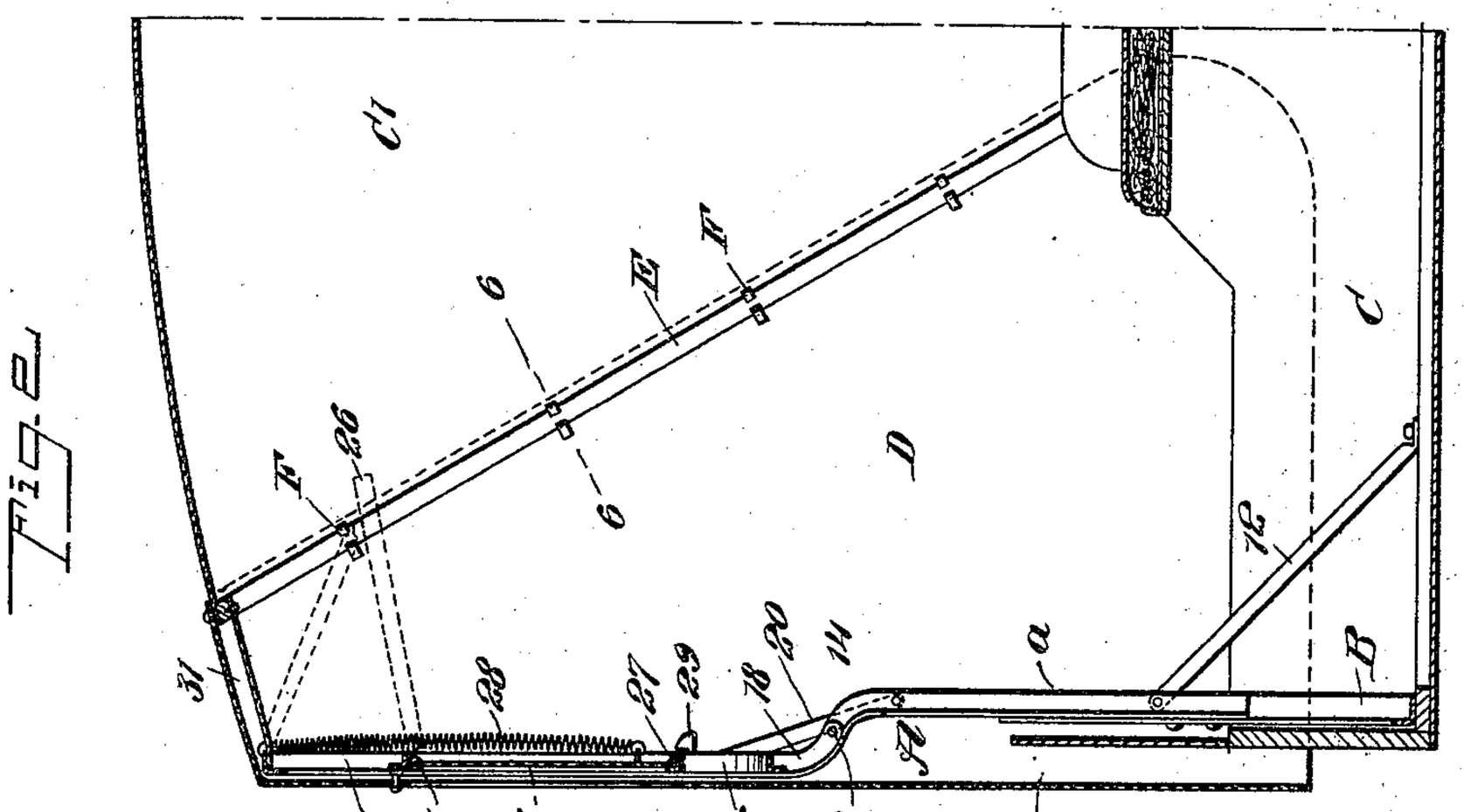

Fig. 2.

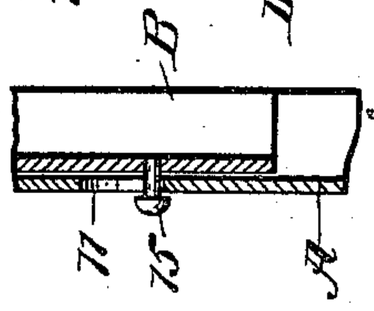

Fig. 4.

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ARTHUR AMIN PRALL, OF DAYTON, IOWA.

STORM-FRONT FOR BUGGIES.

SPECIFICATION forming part of Letters Patent No. 684,095, dated October 8, 1901.

Application filed March 12, 1901. Serial No. 50,812. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR AMIN PRALL, a citizen of the United States, and a resident of Dayton, in the county of Webster and State of Iowa, have invented a new and Improved Storm-Front for Buggies, of which the following is a full, clear, and exact description.

The purpose of the invention is to improve upon the construction of storm-fronts for buggies for which Letters Patent were granted to me March 6, 1900, No. 644,944, the improvement being such that the device is rendered more compact, strong, and light and is capable of being more readily manipulated.

Another purpose of the invention is to so construct the improved storm-front that it will be made in sections, which sections may be separated one from the other and stored away in the body of the buggy or at the dash and whereby the upper section of the device may be dropped down, so as to hang close to the dash, the lower section remaining connected with the body of the vehicle.

Another purpose of the invention is to provide a means whereby a window placed in the upper section will open in an upward direction and will be automatically carried to the upper position when released from engagement with its latch.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the front portion of the body of a buggy and a perspective view of a storm-front in position in the body. Fig. 2 is a longitudinal section through the forward portion of the body of the buggy and a portion of the canopy and a vertical section through the central portion of the storm-front, illustrating its connection with the canopy. Fig. 3 is a front elevation of the storm-front. Fig. 4 is an enlarged detail sectional view illustrating the manner in which the stationary and removable frames are adjustably connected. Fig. 5 is a section through the front portion of a buggy and a side elevation of the storm-front folded at the inner side of the dashboard. Fig. 6 is an enlarged sectional view through a bow of a vehicle-canopy and a sectional view through a portion of the side curtain and the device for removably attaching a side curtain to a bow of the canopy; and Fig. 7 is an inner face view of a portion of the storm-front, illustrating the manner in which the window is held closed.

The device consists, primarily, of a base-frame B, adapted to be secured to the body C of a vehicle, and a main frame A, which is adjustably and removably connected with the base-frame B. The parts of both frames are preferably made of angle-iron, so that the frames may be light, yet strong.

The base-frame B is substantially U-shaped, as shown best in Fig. 3, and each upright member 10 of the base-frame is provided with a series of keyhole-slots 11, (also best shown in Fig. 3,) and braces 12 are attached to the upright or side members of the base-frame and to the bottom of the vehicle-body in any suitable or approved manner, as is shown in Fig. 1.

The main frame A is in two sections—a lower section a and an upper section a'. The lower section a of the main frame A consists of two side bars 13, the upper ends 14 of which are curved upward and outward. The base-frame B is placed in the body of the vehicle, close to the inner face of the dashboard, as is shown in Fig. 1, and the side members 13 of the lower section of the main frame A are provided with pins 15, (shown in Figs. 3 and 4,) and when the main frame is to be attached to the base-frame the pins 15 are made to enter the keyhole-slots 11 in the base-frame, as shown in Fig. 3.

The upper section a' of the main frame A consists of a top bar 16 and side bars 17, the lower ends 18 of the said side bars 17 being curved downward and inward, and the curved portions 18 of the upper section a' of the main frame meet the upper curved portions 14 of the lower section of the main frame, and these two curved portions of the main frame are pivotally connected by suitable pins 19. Braces 20 are pivoted to the upper portions of the side members 13 of the lower section of the main frame A, and these braces are provided at their opposite ends with pins 21, adapted to be sprung into apertures in the

side members of the upper section of the main frame, as illustrated in Fig. 1, whereby the braces 20 serve to hold the two sections of the main frame in an upright position. A cross-bar 22 extends from side to side of the upper section a' of the main frame A at a point near the top of said section, and a lower cross-bar 23 is similarly attached to the upper section of the main frame near its lower portion. A third cross-bar 24 is located slightly above the lower cross-bar 23; but this intermediate cross-bar 24 is provided with a downwardly-extending central bow-section 25, and through the space formed by this bow-section 25 the driving-reins are passed when the device is in position on the vehicle, the bow-section 25 serving as a guide for the driving-reins. A transparent pane 26 is mounted in a suitable frame 27, and this frame 27 is connected, by means of hinges, to the upper cross-bar 22. Thus a window is formed in the upper section of the main frame, and said window is adapted to open upward from the inside of the device, as shown in dotted lines in Fig. 2. Springs 28 are secured to the upper cross-bar 16 of the upper section of the main frame A, said springs being likewise attached to the sides of the window-frame, near the bottom of said frame, and the tendency of these springs 28 is to draw the window-frame inward and upward when released from any suitable form of latch. In Figs. 1 and 7 I have illustrated one form of latch, which consists of a head 29, adapted to engage with the bottom of the window at its inner face, and a spring-shank 30, which is attached to the head and extends along the under face of the intermediate cross-bar 24, being attached to said cross-bar, as is particularly illustrated in Fig. 7. A connecting-bar 31 is attached to the upper cross-bar 16 at or near the center of said cross-bar, and this connecting-bar 31 is adapted to be attached to the under central portion of the front bow E of the canopy C' of a vehicle, as illustrated in Fig. 2. When the device is not needed, the braces 20 are disconnected from the upper section of the main frame, and the upper section will then drop down adjacent to the inner face of the dashboard, as shown in Fig. 5, and will occupy but little room; but both sections of the main frame may be entirely disconnected from the base-frame, either in their open or in their folded positions, by simply disconnecting the pins 15 from the slotted portions of the base-frame.

Side curtains D are used in connection with the main frame, and these side curtains are connected at the front, so as to extend across the front of the main frame and down a certain distance in front of the dashboard. This front portion of the side curtains is cut away to expose the window 26, and likewise to expose that space within the bow 25 through which the reins pass. It will be understood that the side curtains D may be provided with the usual side lights, if desired.

In Fig. 6 I have illustrated a device F, especially adapted for attaching the curtains to the frame of the canopy of the vehicle. These devices F are particularly adapted for attaching the side curtains D to the front bow E of the canopy. As shown, the fastening device F preferably consists of two plates 32 and 33, which are secured in any suitable or approved manner to opposite sides of the curtain D, a ring 34, which is at the outside of the curtains and engages with the outside plate 32, and an inner spring-clamp 35, which engages with the inside plate 33, the clamp being provided at one side of its open portion with a short curved member 36 and a longer curved member 37 at the opposite side of the said opening. This clamp is usually held in position by an arm 38, which extends from an inner plate 32 to an engagement with a side of the clamp, being attached thereto by rivets or their equivalents, while one or more rivets 39 connect the clamp and ring-handle 34, used in connection with the clamp, the said rivets 39 being passed through the two plates 32 and 33 and through the curtain D, to which the plates are attached. It is obvious that with a device of this character a curtain may be quickly fastened to the bow of the canopy and readily detached therefrom.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A storm-front for buggies, comprising a lower section adapted for attachment to a vehicle-body close to the inner face of the dashboard so as to extend above the same, and an upper section pivoted to the upper end of the lower section and adapted to fold down in rear of the dashboard, as set forth.

2. A storm-front for buggies, comprising a base adapted to be secured to the vehicle-body close to the inner face of the dashboard, a lower frame-section detachably secured to the base, and projecting above the dashboard, and an upper frame-section hinged to the upper end of the lower section, as set forth.

3. A storm-front for buggies, comprising a base adapted to be secured to a vehicle-body, and a frame formed of an upper and lower section pivoted together, so that the upper section can fold down upon the lower section, said lower section being detachably secured to the base, as set forth.

4. A storm-front for buggies, comprising a lower section adapted to be secured to a vehicle-body close to the inner face of the dashboard so as to project above the same, an upper section pivoted to the lower section and adapted to fold down upon the same, and braces for locking the upper section extended, as set forth.

5. A storm-front for buggies, consisting of a main frame constructed in sections capable of folding one on the other, a spring-controlled window, and a rein-guide constituting a portion of the main frame, a base-frame adapted for attachment to a vehicle-body, and devices

for adjustably and removably connecting the two frames.

6. In a storm-front for buggies, a storm-curtain, a fastening device for the storm-curtain adapted to hold the curtain in engagement with a bow of the buggy, the said fastening device consisting of a handle at the outside of the curtain, a spring-clamp located at the inside of the curtain opposite the handle, and adapted to engage the bow of the buggy-top, means for connecting the handle and clamp, and plates secured to the curtain and located between the handle and clamp, as set forth.

7. A storm-front for buggies, comprising a lower section adapted to be secured to a vehicle-body, and having its upper end bent outward, an upper section having its lower end bent inward and pivoted to the lower section, and braces for holding the upper section extended, as set forth.

8. A storm-front for buggies, comprising a U-shaped base adapted to be secured to a vehicle-body, a frame formed of an upper and lower section pivoted together, the lower section having its lower end adjustably secured to the base, and braces pivoted to the lower section and having a detachable connection with the upper section, as set forth.

9. In a storm-front for buggies, the combination with a frame adapted to be secured to a vehicle-body, of a pivoted and spring-actuated window in the frame, as set forth.

10. In a storm-front for buggies, the combination with a frame adapted to be secured to a vehicle-body, of a pivoted window in the frame, a spring for holding the window normally open, and a latch for locking the window closed, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR AMIN PRALL.

Witnesses:

A. C. LINDBERG,

E. M. LUNDIEN.