

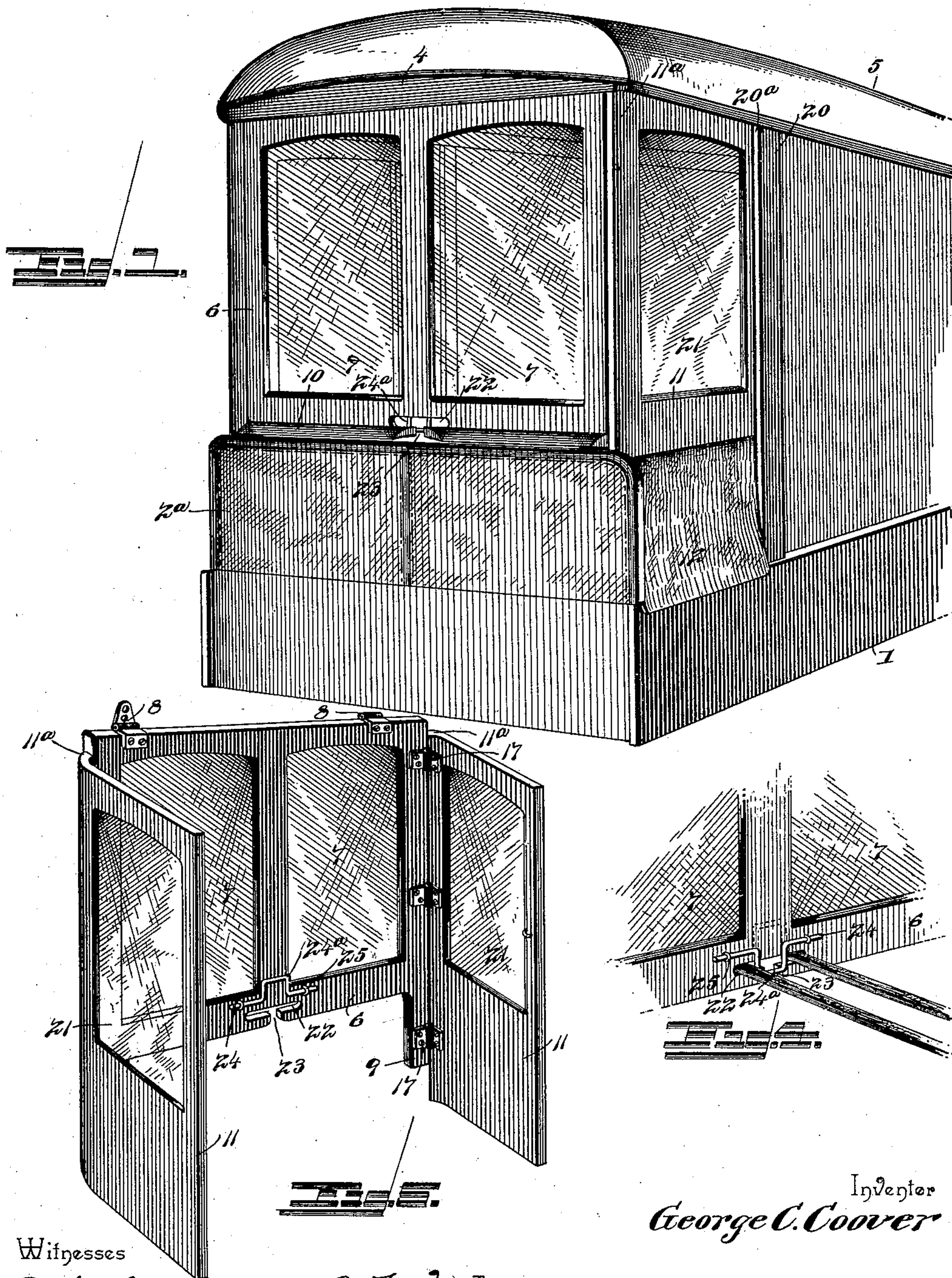
(No Model.)

2 Sheets—Sheet 1.

G. C. COOVER.
DELIVERY WAGON.

No. 601,125.

Patented Mar. 22, 1898.



Inventor
George C. Coover

Witnesses
E. H. Stewart
H. A. Benckhoff

By *W. S.* Attorneys,

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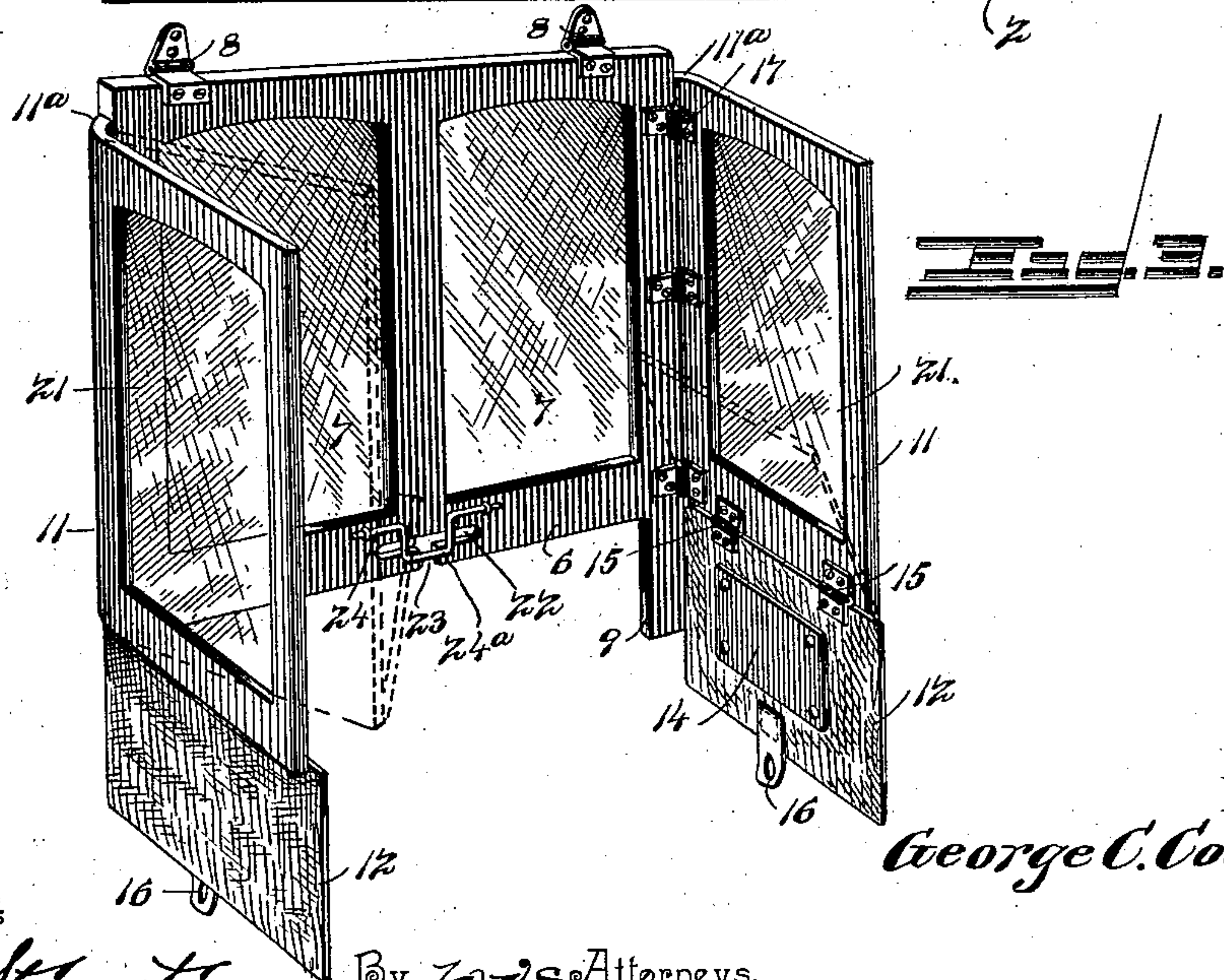
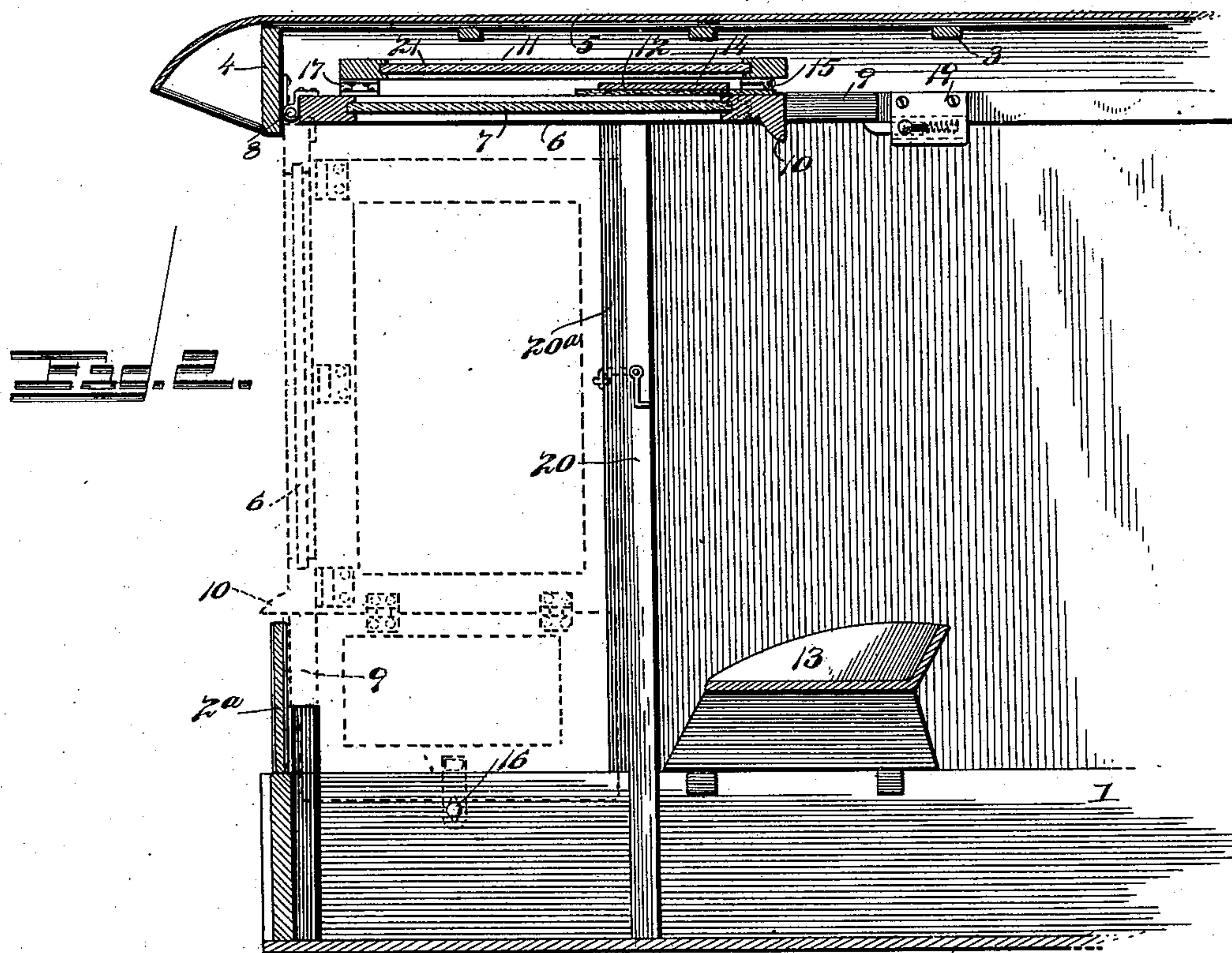
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UNITED STATES PATENT OFFICE.

GEORGE C. COOVER, OF MECHANICSBURG, PENNSYLVANIA.

DELIVERY-WAGON.

SPECIFICATION forming part of Letters Patent No. 601,125, dated March 22, 1898.

Application filed September 30, 1897. Serial No. 653,613. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. COOVER, a citizen of the United States, residing at Mechanicsburg, in the county of Cumberland and State of Pennsylvania, have invented a new and useful Delivery-Wagon, of which the following is a specification.

My invention relates to improvements in that class of vehicles known to the art as "delivery-wagons;" and the object that I have in view is to provide a sectional foldable front especially designed for use in connection with ordinary open-front bodies and by which the front may be closed to afford the driver protection against the weather.

A further object of the invention is to provide an improved sectional front in which the parts may readily and quickly be folded together and upward against the top of the vehicle, so as to be out of the way of the view of the driver in fair weather.

A further object of the invention is to arrange the parts so they can be folded compactly together without requiring the driver to leave the seat and so that the driver may have ready ingress to and exit from the vehicle, and, finally, to provide improved means for retaining the driving lines or reins separated when the forward part of the vehicle is closed by the sectional foldable front embodying my invention.

With these ends in view the first part of the invention consists in the combination, with the vehicle-body, of a front hinged or pivotally connected to said body to fold upwardly against the top thereof and side doors hinged to said front and foldable inwardly against the same, so as to fold upward therewith; and the invention further consists of the novel combination of elements and the construction and arrangement of parts, as will be hereinafter more fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of a portion of a vehicle-body, showing my improved front applied thereto and adjusted to close the open end and sides of the body. Fig. 2 is a vertical longitudinal sectional view showing the

sectional front folded compactly together and against the top of the vehicle-body, the dotted lines representing the position of the front and one side door when folded down and open, so as to close the open-front part of the vehicle-body. Fig. 3 is a detail perspective view of the closure detached from the vehicle-body and looking at the inside thereof. Fig. 4 is a fragmentary perspective view of part of the front, illustrating the position of the driving lines or reins and the keeper by which the reins are kept in separate relation to each other. Fig. 5 is a detail perspective view somewhat similar to Fig. 3 and showing a modified embodiment of the invention in which the side doors are continuous from top to bottom of the vehicle-body.

Like numerals of reference denote like parts in all the figures of the drawings.

1 designates the body of an ordinary vehicle. This body is constructed in any suitable way, but as shown it consists of the floor 2, the dashboard 2^a, the bows 3, the short front bow 4, and the covering 5. The short front bow and the cover form what is known as the "hood," which extends over the dash 2 and affords protection to the driver against rain and snow. The described construction of the body provides at the front part thereof openings on the sides of the body through which the driver can pass in mounting or dismounting to and from the vehicle, and it is the object of my invention to provide an improved closure of simple construction by which these side openings and the open front of the body may be closed in order to afford protection to the driver and yet provide for easy exit from and entrance to the vehicle-body at the sides thereof.

In carrying my invention into effect I provide an adjustable or swinging front, (indicated in a general way by the numeral 6.) This adjustable front consists of a suitable framework for the accommodation of the observation-windows 7, and said front is of such dimensions that it fits between the overhanging hood of the dash and extends from side to side of the vehicle-body. The adjustable front 6 is designed to be attached to the short front bow 4 in a manner to permit said front to be folded upwardly against the vehicle-top, and to attain this object in the simplest

form I provide the hinges 8, which have their leaves attached to the short front bow 4 and to the frame of the closure-front 6, as indicated clearly by Figs. 2 and 3 of the drawings. The frame of the closure-front 6 is provided at its sides with the dependent arms 9, which depend below the lower horizontal edge of the closure-frame and which are adapted to abut against the inside of the dash 2 for the purpose of limiting the downward and forward movement of the closure-frame. The bottom rail of the closure-front frame is adapted to occupy a position close to the upper edge of the dash 2, and in order to exclude rain or snow from entering the vehicle when the closure-front is lowered into relative position I provide the water-shed 10. This water-shed consists of an inclined rail applied against the outside of the closure-frame in a position to project forwardly beyond said closure-frame and over the upper edge of the dash 2, and said rail has an inclined upper face which inclines downward and forward, so as to direct the water away from the joint between the rail 10 and the upper edge of the dash, these positions of the parts being indicated in dotted and full lines by Fig. 2.

The openings at the sides of the vehicle-body are designed to be closed by the side doors 11 and 12.

One of the important features of my invention consists in attaching the side doors to the closure-front in a manner to enable the side doors to fold compactly upon the front, and thus arrange the sections or the parts of the closure compactly together, so that the side doors and the closure-front may fold together upwardly against the vehicle-top, as indicated by Fig. 2 of the drawings, whereby I am enabled to have all the elements of the closure disposed out of the way of the driver in fair weather. These side doors may be constructed as indicated by Fig. 3 or as indicated by Fig. 5. In the last-named figure each side door is continuous from top to bottom, but in Fig. 3 each side door is comparatively short and provided at its lower edge with a foldable flap; but in each instance the side door is foldable inwardly against the closure-front, so as to fold upwardly against the vehicle-top.

I prefer to employ the construction shown by Figs. 2 and 3, in which each side door 11 is used in connection with the foldable flap 12, because such construction provides for the convenient adjustment of the side doors without requiring the driver to leave the seat 13 or interfering in any way with the occupant of the seat. Each of the short side doors terminates about on the plane of the lower edge of the closure-front frame, and to the bottom edge of the short side door is hinged or otherwise attached the foldable flap 12. This flap may consist of a single piece of waterproof material, which is reinforced and weighted by a metallic plate 14, said plate being applied to the inside of the waterproof

material forming the flap and united suitably thereto—as, for instance, by rivets. The flap is attached to the short door by hinges 15 or other suitable contrivances to enable the flap to fold upwardly against the inner face of the door. Each flap has its edges at the sides and at the bottom thereof free or unconfined, and when the side door is closed the bottom edge of the flap is designed to extend outside of the vehicle-body to form a shed for deflecting the water outside of the body, said lower edge of the flap being held in place by a suitable fastener, (indicated by 16.) This fastener may consist simply of a strap attached to the flap and adapted to engage with a button on the vehicle-body; but the style of fastener is not material and may be changed at pleasure.

Each side door, whether constructed as shown by Fig. 3 or as shown by Fig. 5, has a stile 11^a, which is hinged to the closure-front 6 at the side edges thereof, the hinges by which the side door and closure-front are connected together being indicated by the numeral 17 in Figs. 2, 3, and 5 of the drawings. The pintles of the hinges 17, which attach the side doors to the closure-front, are disposed in vertical planes, while the pintles of the hinges 8, which attach the closure-front to the vehicle-top, are disposed in horizontal planes, whereby the side doors are adapted to fold inwardly upon the closure-front 6, and the closure and doors are capable of folding upwardly against the vehicle-top, as shown by Fig. 2. When the front and side doors of the closure are thus folded compactly together and against the vehicle-top, the closure itself is held firmly and steadily in place by means of catches, one form of which is indicated at 19 in Fig. 2. This catch 19 is shown as consisting of a slidable spring-controlled bolt operating within a suitable casing fastened to the vehicle-top; but it will be understood that the style of catch or fastener is not material to my invention and may be modified or changed to suit the views of the manufacturer or purchaser.

When constructing a vehicle-body to accommodate a sectional foldable closure, as contemplated by my invention, I prefer to make the vertical posts 20, which sustain the front bow of the vehicle-top, with the vertical rabbets 20^a. Each post adjacent to the door-opening is provided with a rabbet against which the stile at the free edge of the door may close in order to provide a close joint between the side door and the upright post at the side of the vehicle, thus excluding rain or snow to the best advantage and arranging the parts to present a neat appearance.

As shown in the drawings, I construct each side door with an observation-opening 21, and these openings in the doors and the closure-front 6 are provided with glass panes.

When the front 6 is turned to occupy its vertical position in order to close the open front end of the vehicle-body, provision must be

made for the passage of the driving lines or reins from the horse into the vehicle. I attain this end by providing a horizontal slot 22 in the lower rail of the frame forming a part of the closure-front 6. This slot 22 occupies a central position in the lower rail of said closure-frame, and it has a central neck or throat 23, which opens downwardly through the lower edge of said rail of the closure-frame.

The lines or reins may easily be slipped through the throat 23, so as to pass through the slot 22 in the closure-frame. To keep the reins properly spaced apart and prevent entanglement of the reins one with the other, I provide a keeper 24, which is supported on the inside of the closure-front 6 and is adapted to be adjusted across the slot 22 and the throat 23 thereof. This keeper 24 is pivotally attached to the closure-front 6 by means of staples 25, and said keeper is provided with an offset 24^a, which extends at right angles to the arms that furnish the pivotal connection between the keeper and the closure-front 6. The keeper may be raised to project this offset above the slot 22, as shown in Fig. 5, in order that the driving-lines may readily be adjusted in or removed from the guide-slot 22; but after the lines have been properly fitted in the slot the keeper is turned down across the slot and its throat, as shown by Figs. 3 and 4, so that the offset 24^a in the keeper occupies a position between the lines or reins and serves to keep them spaced apart.

In fair weather the closure is folded upwardly against the vehicle-top, as shown by Fig. 2, thus leaving the whole front of the vehicle exposed and open. To close the open front of the vehicle-body in stormy or rainy weather, the driver releases the fastening 19 and allows the closure-front 6 to swing downwardly and forwardly on the hinges 8. The closure-front occupies a vertical position between the overhanging hood and the dash 2, with the water-shed 10 projecting forwardly beyond the dash, and the doors 11 close outwardly on the hinges 17 against the rabbeted posts 20. To fold the closure shown by Fig. 5 out of the way of the driver, it is only necessary to turn the doors 11 inwardly against the closure-front 6 and then raise the connected doors and closure-front upwardly into the horizontal position shown by Fig. 2. In folding the closure-front shown by Fig. 3, in which the doors are provided with the flaps 12, it is necessary to first fold the flaps upwardly on the hinges 15 against the inner faces of the doors 11, after which the doors are folded inwardly against the closure-front 6, and said front and doors are then folded upwardly against the top, so as to be engaged by the fastenings 19.

I am aware that changes in the form and proportion of parts and the details of construction of the invention as herein shown and described may be made by a skilled mechanic without departing from the spirit or sacrificing any of the advantages of the in-

vention. I therefore reserve the right to make such modifications and alterations as clearly fall within the scope of the invention.

Having thus described the invention, what I claim is—

1. The combination with a vehicle-body, of a closure comprising the front and side doors attached to said front and foldable therewith against the vehicle-top, substantially as described for the purposes set forth.

2. The combination with a vehicle-body, of a closure-front hinged to the vehicle-top, to fold upwardly against the same, and side doors hinged to the closure-front and foldable inwardly against the same and upwardly therewith against the top, substantially as described for the purposes set forth.

3. The combination with a vehicle-body, a closure-front and sectional side doors attached thereto, the lower member or section of each side door being foldable with relation to the hinged member of the side door, substantially as described for the purposes set forth.

4. The combination of a closure-front, a side door foldable against the same, and a flap which is free from the closure-front and is attached to the side door to fold against the same, for the purposes described, substantially as set forth.

5. The combination with a closure-front, of independent side doors hinged thereto and foldable inwardly against the same, and independent flaps which are unattached to the closure-front and are attached to the respective side doors to be foldable upon and with the same against the closure-front, substantially as described for the purposes set forth.

6. The combination with a vehicle-body, of a closure-front hinged thereto and foldable upwardly against the top thereof, side doors hinged to the closure-front to be foldable inwardly against the same, flaps attached to the side doors and foldable therewith against the front, and suitable fastenings for holding said flaps in place when the closure is adjusted to close the open front of the vehicle-body, substantially as described for the purposes set forth.

7. The combination with a vehicle-body, of a closure-front, side doors hinged thereto, and flaps attached to the side doors, each flap consisting of a waterproof fabric, and a reinforcement-plate united to said fabric to leave the bottom edge thereof free or unconfined, for the purposes described, substantially as set forth.

8. The combination with a vehicle-body, of a closure-front attached to said body to fold into a vertical position over the dash, a water-shed carried by said closure-front and adapted to project beyond the vertical face of said dash, and side doors carried by said front, as and for the purposes described.

9. In a closure for vehicle-bodies, a front provided near its lower edge with a guide-slot for the reception of the driving-reins, said slot having a throat which opens through one

edge of said closure, as and for the purposes described.

10. In a closure for vehicle-bodies, a front provided with a guide-slot for the reception
5 of the reins, and a keeper attached to said front and movable thereon to be projected across said slot, as and for the purposes described.

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

GEORGE C. COOVER.

Witnesses:

JOHN S. WEAVER,
JNO. T. DUNFEE.