

No. 679,624.

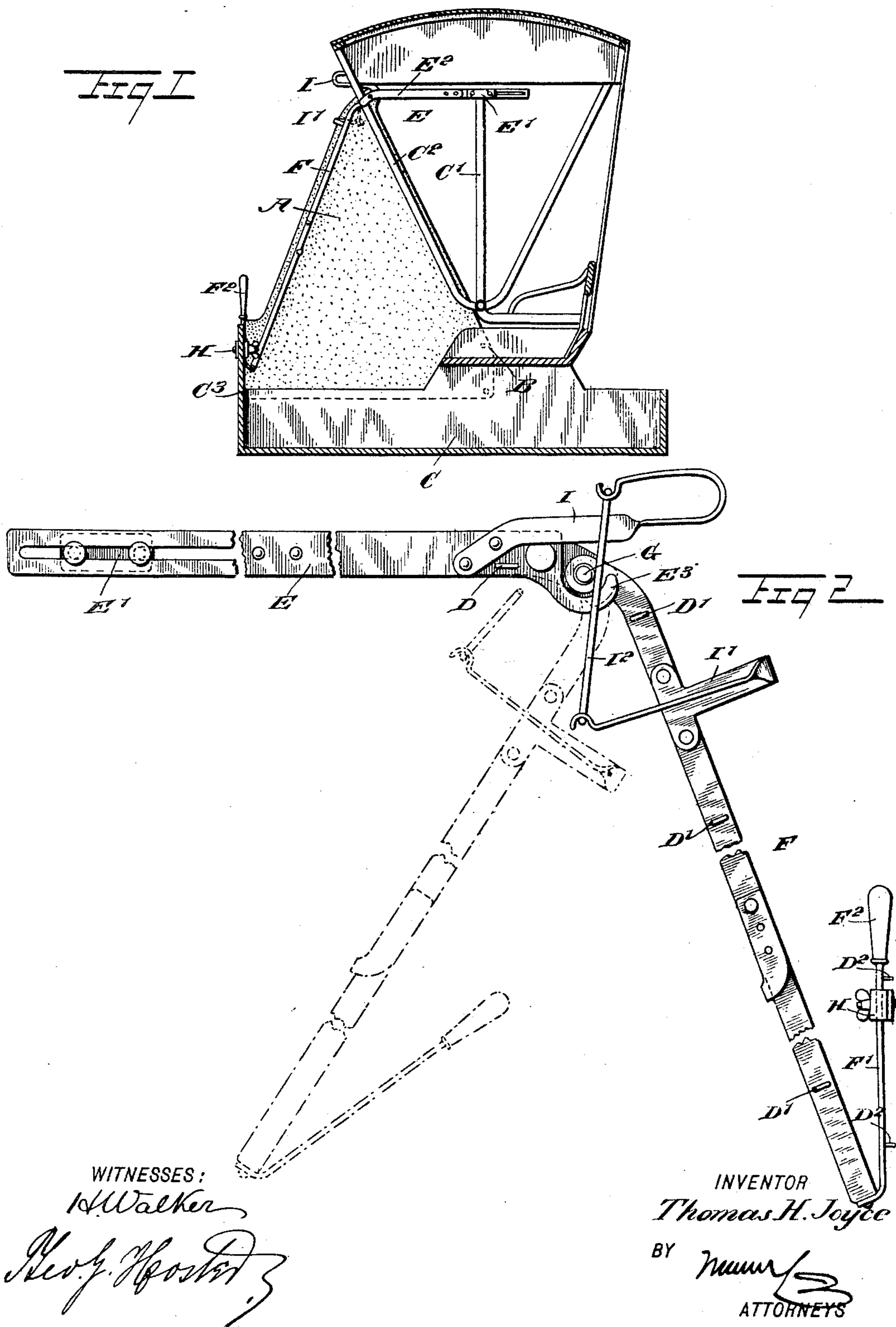
Patented July 30, 1901.

T. H. JOYCE.  
SIDE APRON FOR VEHICLES.

(Application filed Jan. 2, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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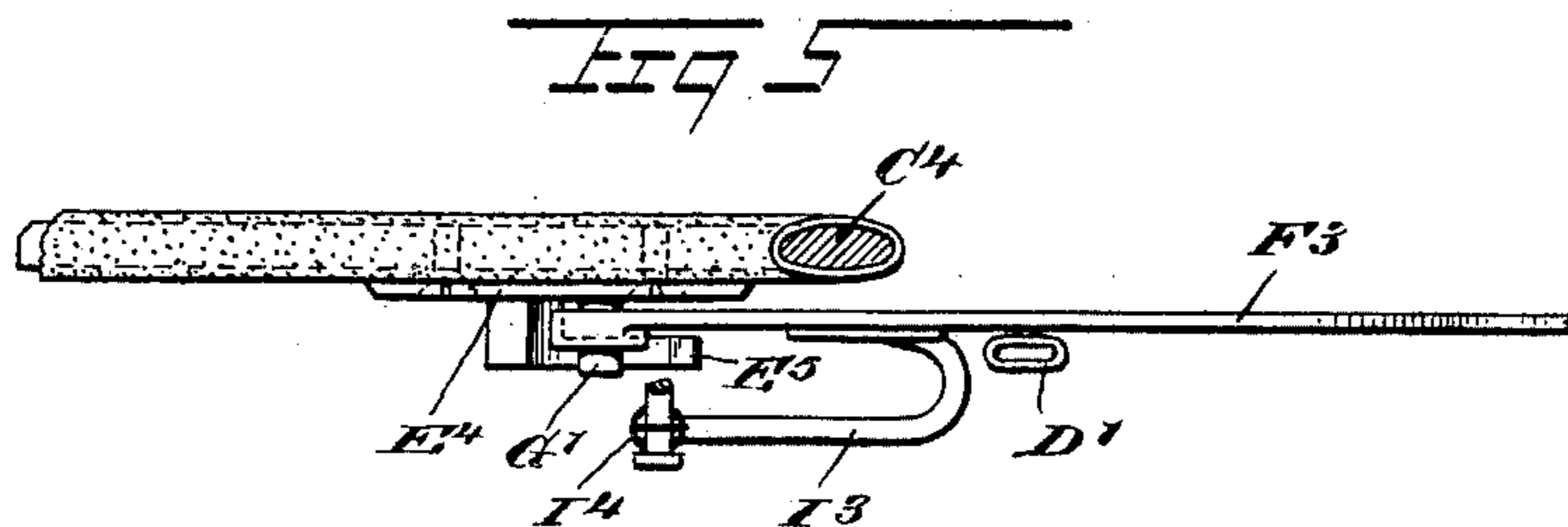
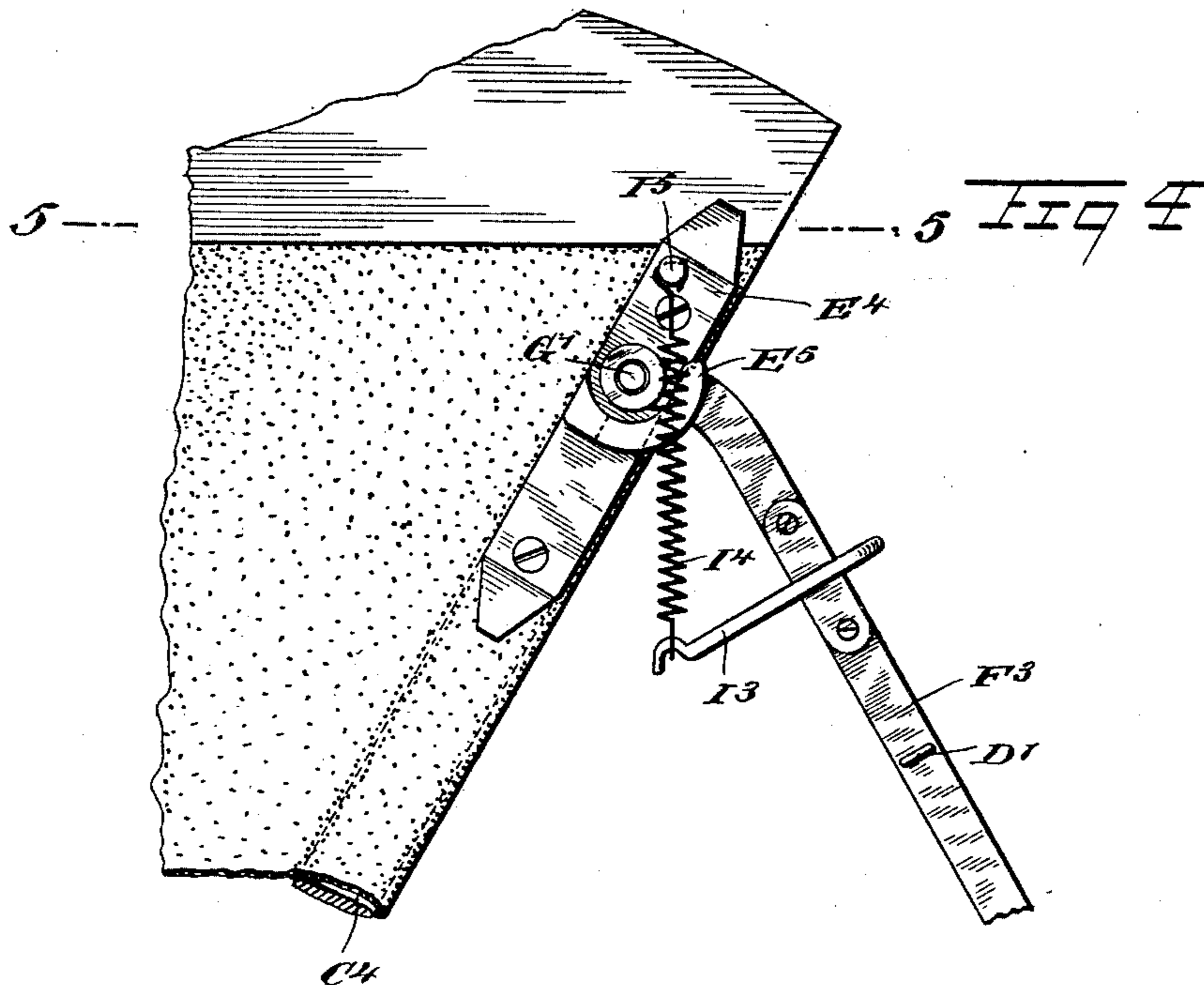
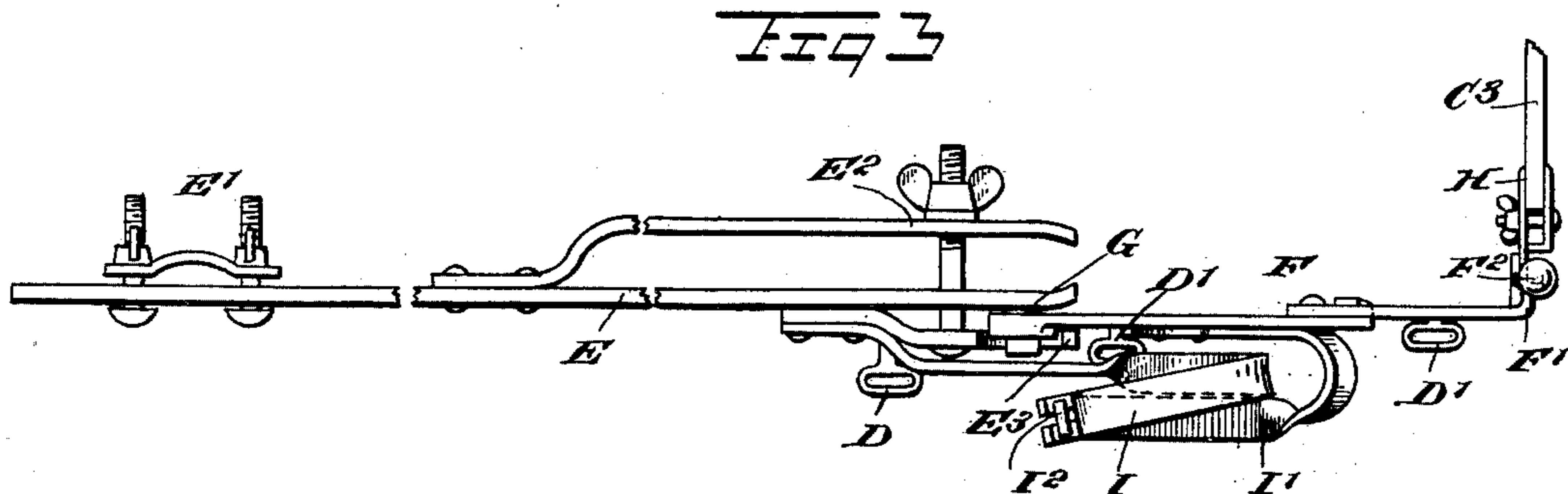
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2 Sheets—Sheet 2.



WITNESSES:

*H. Walker*

*Rev. J. H. Hester*

INVENTOR

*Thomas H. Joyce*

BY *Wm. H. Hester*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

THOMAS H. JOYCE, OF BROOKLYN, NEW YORK.

## SIDE APRON FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 679,624, dated July 30, 1901.

Application filed January 2, 1901. Serial No. 41,889. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. JOYCE, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Side Apron for Vehicles, of which the following is a full, clear, and exact description.

The invention relates to side aprons for buggies and like vehicles—such, for instance, as shown and described in the Letters Patent of the United States No. 467,032, granted to me on January 12, 1892.

The object of the present invention is to provide a new and improved side apron for vehicles, arranged to permit convenient egress from the vehicle-body and protect the occupants from side drafts, rain, or snow, and at the same time allow independent use of the lap-robe and free handling of the reins.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of a buggy-body provided with the improvement. Fig. 2 is an enlarged side elevation of the improvement. Fig. 3 is a plan view of the same. Fig. 4 is a side elevation of a modified form of the improvement, and Fig. 5 is a sectional plan view of the same on the line 5 5 in Fig. 4.

Each of the side aprons A is removably attached at its lower rear end to buttons B, held on the sides of the vehicle-body C, and the upper end of the side apron is removably attached to a button D, carried by an attaching-bar E, secured by clips E' and E<sup>2</sup> to the middle bow C' and the front bow C<sup>2</sup> of the vehicle-canopy, as is plainly illustrated in Fig. 1. The front of the apron A is removably attached to buttons D', held on an apron-carrying bar F, pivoted at its upper end on a pivot-pin G, carried on the forward end of the attaching-bar E.

In order to prevent accidental displacement of the apron-carrying bar F from the pivot-pin G, a guide-arm E<sup>3</sup> is provided, secured to

the attaching-bar E and extending over the front portion of the apron-carrying bar F at the pivotal end thereof, as is plainly indicated in Figs. 2 and 3. The lower end of the apron-carrying bar F is provided with an upwardly-extending arm F', carrying at its upper end a handle F<sup>2</sup>, adapted to be taken hold of by the operator to swing the apron-carrying bar F into a forward position, as shown in full lines in Figs. 1 and 2, and into a rearward position, as indicated in dotted lines in Fig. 2, to allow ingress and egress to and from the vehicle-body C.

The arm F' is adapted to be engaged with a keeper H, clamped or otherwise secured to the side of the dashboard C<sup>3</sup> of the vehicle-body C to hold the apron-carrying bar F normally locked in a forward position, as shown in Figs. 1 and 2. The arm F' is provided at its front with buttons D<sup>2</sup>, adapted to be engaged by the front edge of the side apron A, so as to securely close the entire forward portion of the side of the vehicle-body by the apron A, the lower edge of the latter extending a short distance below the top edge of the side of the body C, as indicated in dotted lines in Fig. 1.

In order to hold the apron-carrying bar F in either a forward or rearward position, a spring device is provided, consisting, essentially, of two flat springs I I', secured to the bars E and F, respectively, and connected with each other at their free ends by a link I<sup>2</sup>, detachably connected with the said free ends. The flat springs I I' are so arranged relatively to each other that when the arm F is in a forward position the connecting-link I<sup>2</sup> extends to the front of the pivot G, and when the apron-carrying bar F is swung rearward then said link I<sup>2</sup> passes to the rear of the pivot G, and consequently holds the apron-carrying bar F in a rearmost position, as indicated in dotted lines in Fig. 2. The apron-carrying bar is preferably made in sections hinged together to permit of conveniently folding the bar into a comparatively small space when it is unhooked from the pivot-pin G and is not to be used for carrying the side apron A.

As illustrated in Figs. 4 and 5, the attaching-bar E<sup>4</sup> is secured by screws to the front bow C<sup>4</sup> of the vehicle-body, and the apron-

carrying bar  $F^3$  is hung on the pivot  $G'$  and is guarded against displacement by an arm  $G^5$ , similar to the arm  $E^3$ . The spring device consists, essentially, of an arm  $I^3$  on the apron-carrying bar  $F$  and a coil-spring  $I^4$  engaging the free end of the arm  $I^3$  and attached at its other end to a button  $I^5$  on the attaching-bar  $E^4$ , the action of which spring device is the same as the one above described in reference to Figs. 1 and 2, so that further description is not deemed necessary.

When the several parts are in the position shown in Figs. 1 and 2, then the arm  $F'$  of the apron-carrying bar  $F$  is engaged with the keeper  $H$ , so as to positively lock the said apron-carrying bar in a forward position to hold the side apron  $A$  stretched, as indicated in Fig. 1. When it is desired to open the side apron, the operator simply takes hold of the handle  $F^2$ , pushes the same forward, so as to disengage the arm  $F'$  from the keeper  $H$ , and by then moving the handle  $F^2$  outwardly the arm  $F'$  is completely freed from the keeper, and the apron-carrying bar  $F$  can now be swung rearward by the operator moving the handle  $F^2$  in this direction. As soon as the link  $I^2$  passes the center of the pivot  $G$  then the springs  $I$   $I'$  exert sufficient force on the apron-carrying bar  $F$  to swing the same into a final rearmost position, as indicated in Fig. 2. As the apron-carrying bar carries the apron along, the side of the vehicle is opened to permit ingress to and egress from the vehicle-body. When it is again desired to close the side of the vehicle, the operator takes hold of the handle  $F^2$ , draws the same forward, and engages the bar  $F'$  with the keeper  $H$  to again lock the apron-carrying bar in an active forward position.

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

1. A vehicle attachment, comprising an attaching-bar for attachment to the side of a vehicle-canopy, an apron-carrying bar pivoted on said attaching-bar, and a spring for holding said apron-carrying bar in either a forward or rearward position, as set forth.

2. A vehicle attachment, comprising an attaching-bar adapted to be secured to the side of a vehicle-canopy, an apron-carrying bar pivoted on said attaching-bar, and a keeper on the vehicle-dashboard and adapted to be engaged by said apron-carrying bar, to hold the latter in a forward position, as set forth.

3. A vehicle attachment, comprising an attaching-bar adapted to be secured to the side of the vehicle-canopy, an apron-carrying bar pivoted on said attaching-bar and having a handled arm extending upwardly from the lower end of the said apron-carrying bar, and a keeper on the vehicle-dashboard and adapted to be engaged by said arm, as set forth.

4. A vehicle attachment, comprising an attaching-bar adapted to be secured to the side of a vehicle-canopy, an apron-carrying bar pivoted on said attaching-bar, springs secured on said bars, and a link connecting said springs with each other, as set forth.

5. A vehicle attachment, comprising an attaching-bar adapted to be secured to the side of a vehicle-canopy, a pivot on the forward end of said attaching-bar, a guide-arm on said attaching-bar and concentric to said pivot, and an apron-carrying bar hung on said pivot and engaged at the front by said guide-arm, as set forth.

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

THOMAS H. JOYCE.

Witnesses:

JESSE G. GATES,

CONSTANTINE SCHUBERT.