

(No Model.)

C. L. INGALLS.  
CARRIAGE CURTAIN FASTENER.

No. 548,060.

Patented Oct. 15, 1895.

Fig. 1<sup>a</sup>.

Fig. 1.

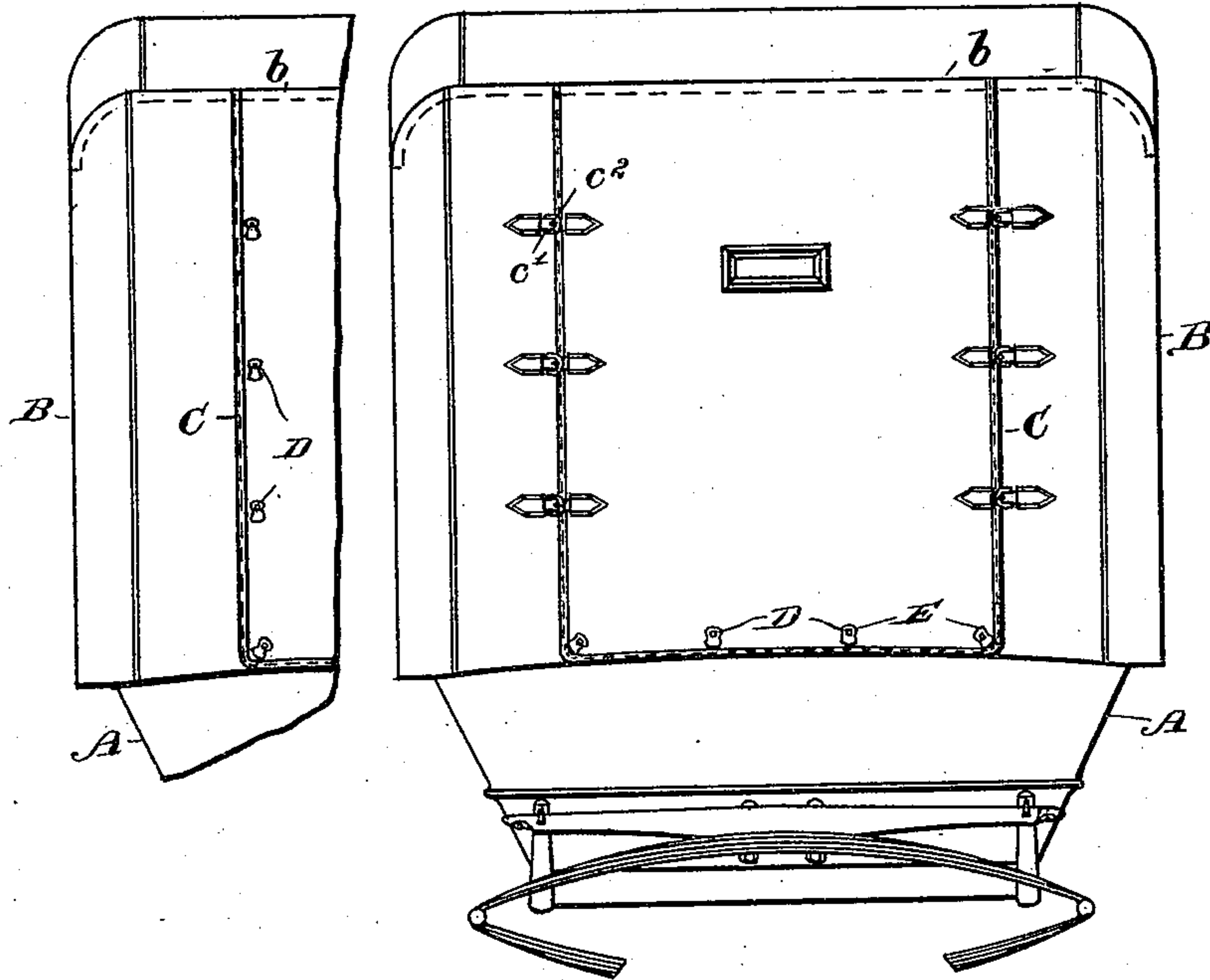


Fig. 2.

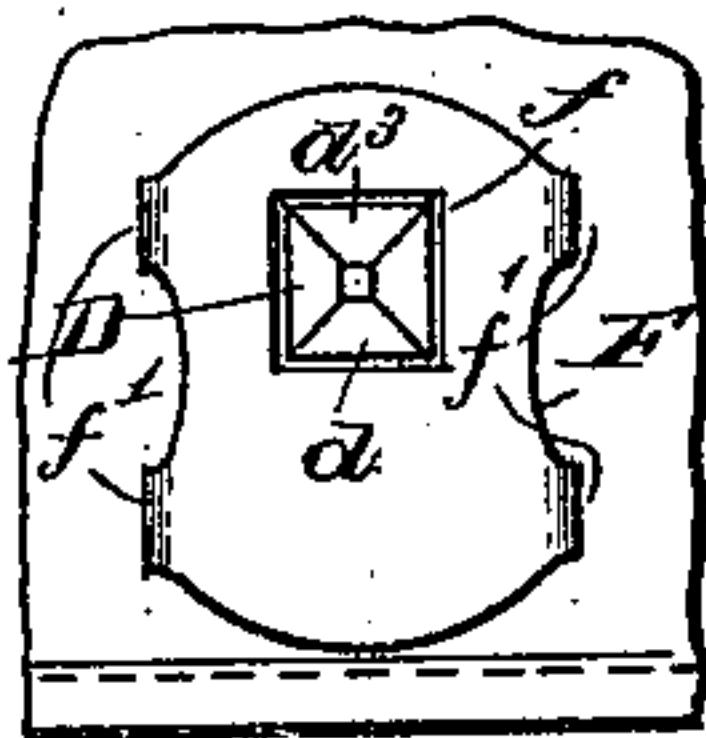


Fig. 3.

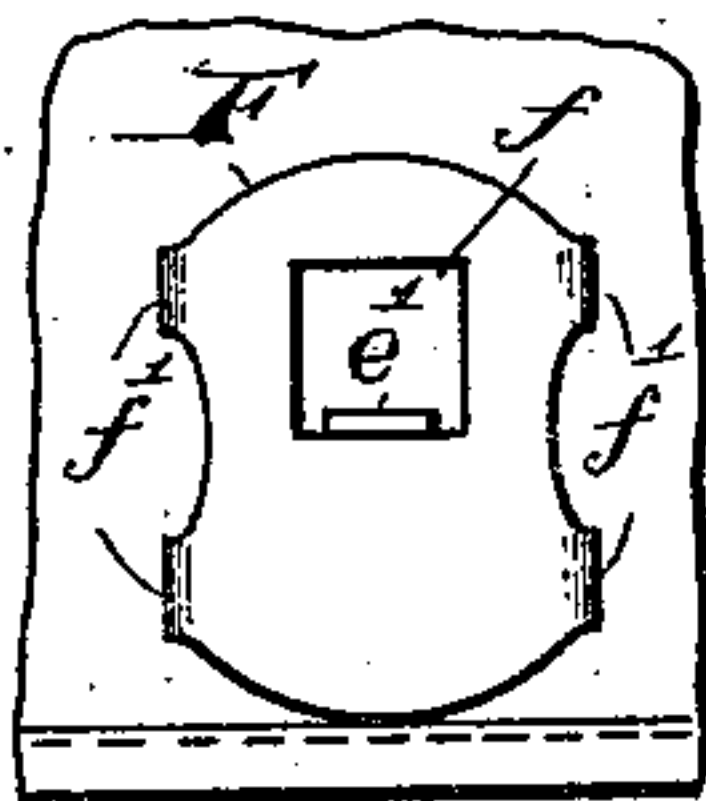


Fig. 4.

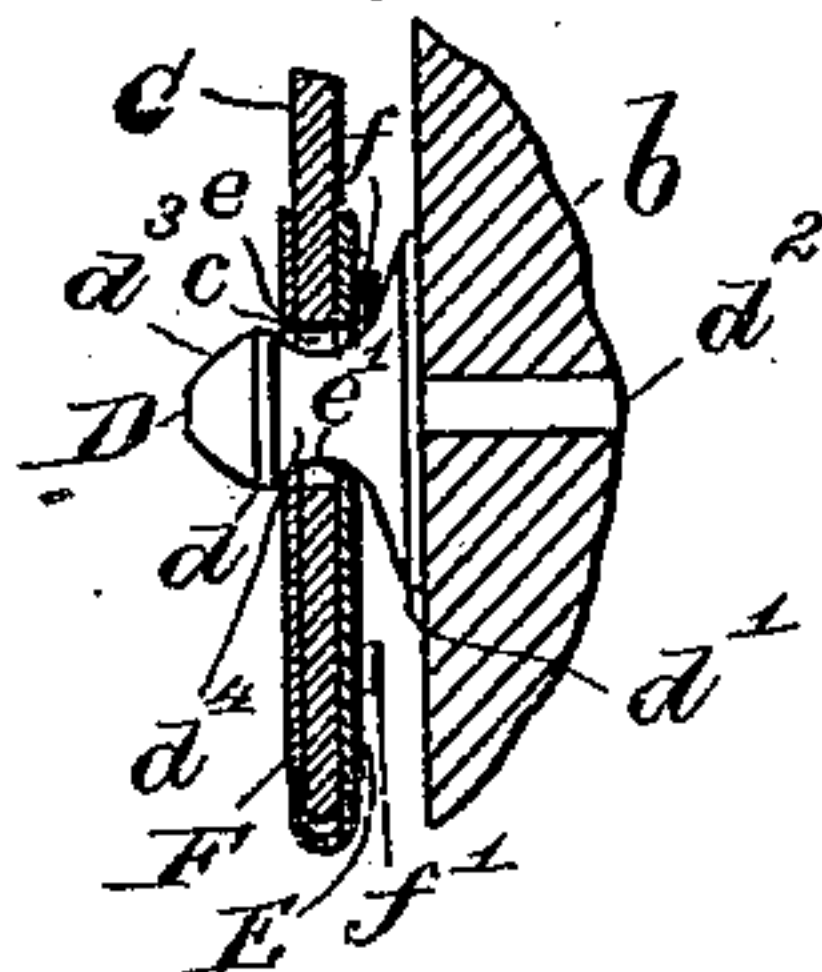


Fig. 5.

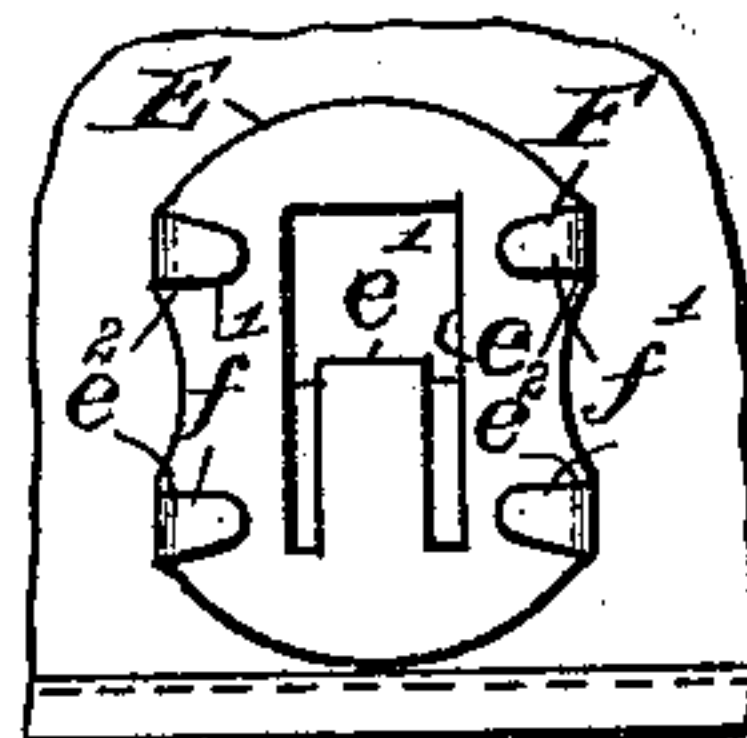


Fig. 6.

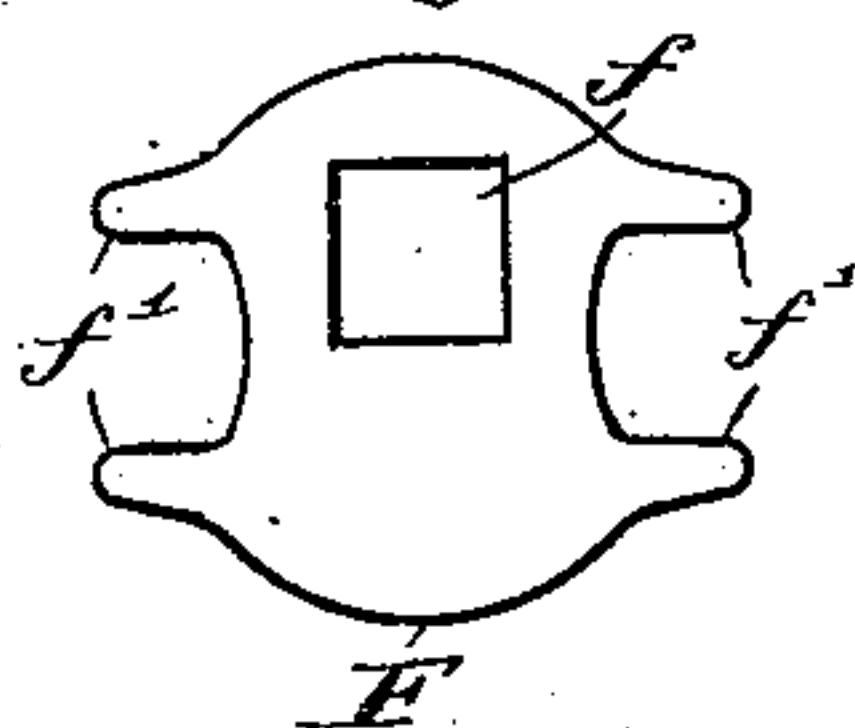
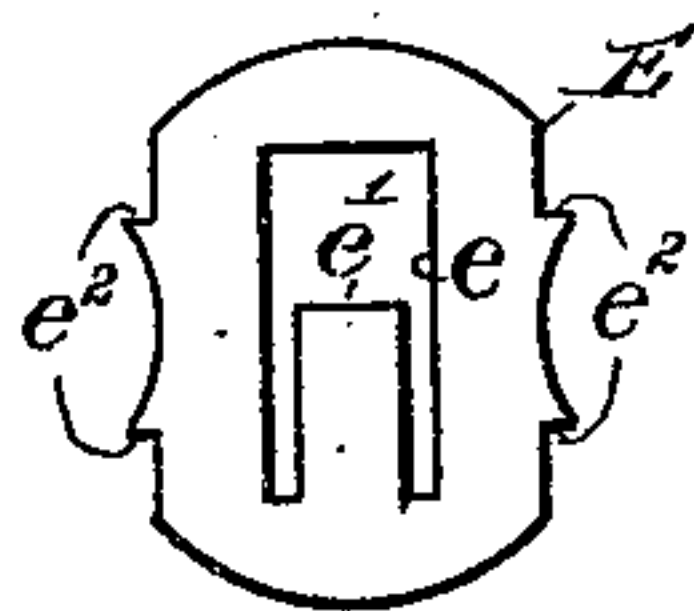


Fig. 7.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

CHARLES L. INGALLS, OF LOWELL, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO JOSEPH A. BURLEIGH, OF LACONIA, NEW HAMPSHIRE.

## CARRIAGE-CURTAIN FASTENER.

SPECIFICATION forming part of Letters Patent No. 548,060, dated October 15, 1895.

Application filed September 10, 1892. Serial No. 445,533. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES L. INGALLS, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Carriage-Curtain Fasteners, of which the following is a specification.

My improvement relates to carriage-curtain fasteners; and it consists in the devices and combinations hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a rear elevation of a carriage-body and carriage-top having a curtain, the lower edge of which is held by my improved fasteners; Fig. 1<sup>a</sup>, a rear elevation of a part of a similar carriage top and curtain, showing one side and the bottom of said curtain held in place by such fasteners; Fig. 2, an outside elevation of said fastener with the adjacent part of the curtain to which it is secured; Fig. 3, the same, omitting the stud or button; Fig. 4, a vertical central section of the fastener and adjacent parts of the curtain and frame of the carriage-top; Fig. 5, an inside elevation of the parts shown in Fig. 3; Fig. 6, an elevation of the attaching-plate or clamp-plate before the ears are bent to pass through the curtain; Fig. 7, an elevation of the catch-plate, showing its spring-tongue and shoulders.

The carriage-body A and frame b of the carriage-top B are of any usual construction, adapted to support detachable curtains or curtains which may be rolled or folded from their lower edges.

In Figs. 1 and 1<sup>a</sup> the curtain C is the rear curtain of a buggy or carryall and usually permanently secured at its upper edge to the frame b, and sometimes fastened when in use by straps c' and buckles c<sup>2</sup> at its side edges and at its lower edge usually by buttons or studs rigidly secured in the back of the carriage-body near the top edge of the same and having enlarged circular heads, said buttons passing through corresponding holes in said curtain. Sometimes the curtain when down is secured at the side edges by the same means as are used to fasten its lower edge, and sometimes detachable curtains are secured at all their edges by such means—that is, by but-

tons or studs projecting from the frame and entering holes in the curtain. Such curtains, being made of leather or cloth, contract when the cloth is wet and render it difficult to fasten the curtains, and the holes sometimes become enlarged by wear and will slip off from the buttons.

The substitutes heretofore used for the common carriage-buttons have been so lacking in efficiency or so expensive as to prevent their adoption to any considerable extent.

My improved fastener comprises a button D, having an enlarged head d, and having a base d', which bears upon the surface of the frame b, and having also a shank d<sup>2</sup>, adapted to be driven or screwed into said frame b in the usual manner. The top d<sup>3</sup> or outer surface of the head d is beveled or tapered, as shown, from its largest diameter toward the center of said head, and said head is preferably, but not necessarily, square or rectangular in cross-section. Said fastener also includes a catch-plate E and a clamp-plate F. The catch-plate E is of sheet metal, as sheet-steel, and is provided with a slot e and with a spring-tongue e', which projects into said slot e and is most conveniently formed in one piece with said catch-plate. The slot e is barely wide enough to admit the head d of the button D, and the vertical distance from the free end of the spring-tongue e' to the upper side of the slot e is slightly less than the distance between the two opposite sides of said head. The plate E is secured to the curtain on the inside of the same by means of the clamp-plate F, the essential features of which are a slot f, of the same width as the slot e, (and square, if the head d is square in cross-section,) and ears f', which, being first bent backward at right angles to the body of said plate F, are passed through the curtain from the outside thereof and then bent over the back of the plate E above and below shoulders e<sup>2</sup>, with which said plate E is provided. When the plates E F are thus secured to the curtain, the top of the slot e is at the same height with the top of the slot f, and the sides of said slots are parallel; but before said plates are so secured a hole c is cut through the curtain C between said slots to admit the head d and neck d<sup>4</sup> of the button



D. The slots *e c f* or buttonhole is engaged with the button D by first passing the upper end of the spring-tongue *e'* under and back of the head *d* of said button and then pushing the upper ends of the plates E F toward the base *d'* of said button, causing the upper end of the slot *e* to ride up over the upper bevel of said head. The buttonhole is disengaged from said button D by drawing the lower ends of said plates E F away from the base *d'* of said button, causing the spring-tongue to draw out from under the head of said button, so that the curtain can only be unfastened by beginning at the bottom and working upward, which renders the curtain less liable to be unfastened by the wind or other accidental means.

Where the buttons D are secured to the stationary curtains or leather sides or back of a carriage, the shanks are simply riveted to said stationary curtains, sides, or back in the usual manner.

By making the neck of the button between the head *d* and the base *d'* of the same of sufficient length two overlapping curtains may be secured on the same button.

It will be observed that the clamp-plate serves the double purpose of securing the catch-plate to the curtain and of giving to the outside of the curtain a more finished appearance, and that the catch-plate alone engages the stud and would engage said stud if fastened to the curtain by any usual means, as rivets, without the use of the clamp-plate.

I claim as my invention—

1. A catch-plate for a carriage curtain fastener consisting of a metallic plate having a

slot, and a stiff spring tongue integral with said plate and disposed in the same plane therewith and projecting into said slot, the slot beyond the free end of the tongue being of sufficient width in a direction transversely of the tongue to permit the free passage of the head of the stud to be engaged by the catch plate and of less depth than said head between the end of the tongue and the end of the slot.

2. A carriage curtain fastener composed of two members, a metallic plate having a slot, a tongue stamped from said plate and extending into said slot in the same plane with the plate, and a clamping shield having a slot adapted to register with the upper portion of the slot in said plate, said shield covering the body of said tongue and the slot therein exposing the tip only of the tongue.

3. In a carriage curtain fastener, the combination of a metallic plate having a slot, a tongue disposed in the same plane with said plate and extending into said slot, said plate having lateral projections, and a shield provided with flaring prongs, said prongs forming a tapered opening between them into which the projections on said plate are adapted to wedge, whereby the plate and shield are held apart.

In witness whereof I have signed this specification, in the presence of two attesting witnesses, this 2d day of September, A. D. 1892.

CHARLES L. INGALLS.

Witnesses:

ALBERT M. MOORE,  
SUMNER P. SMITH.