

J. H. SPENCER.  
FASTENING FOR CARRIAGE CURTAINS.

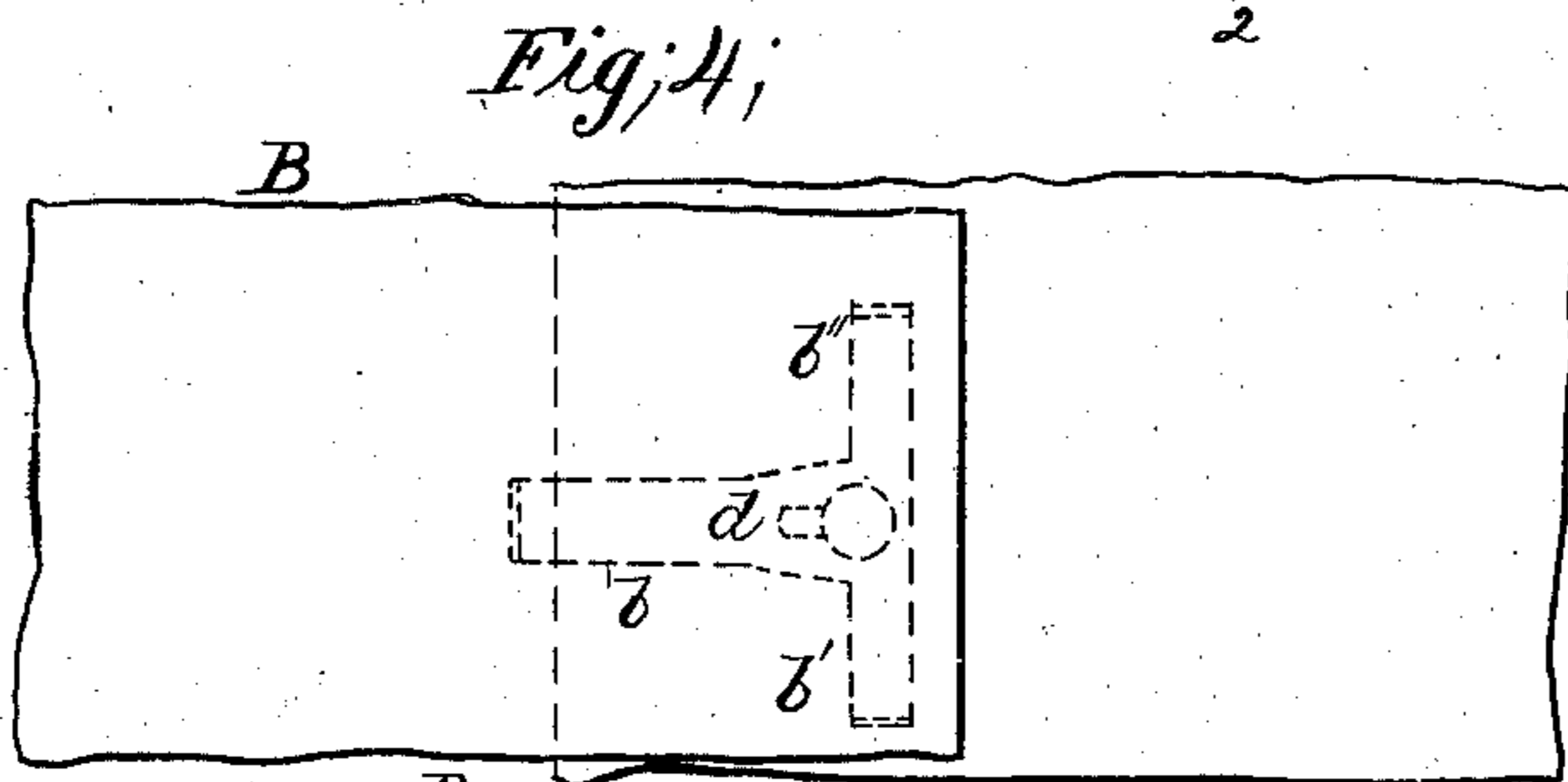
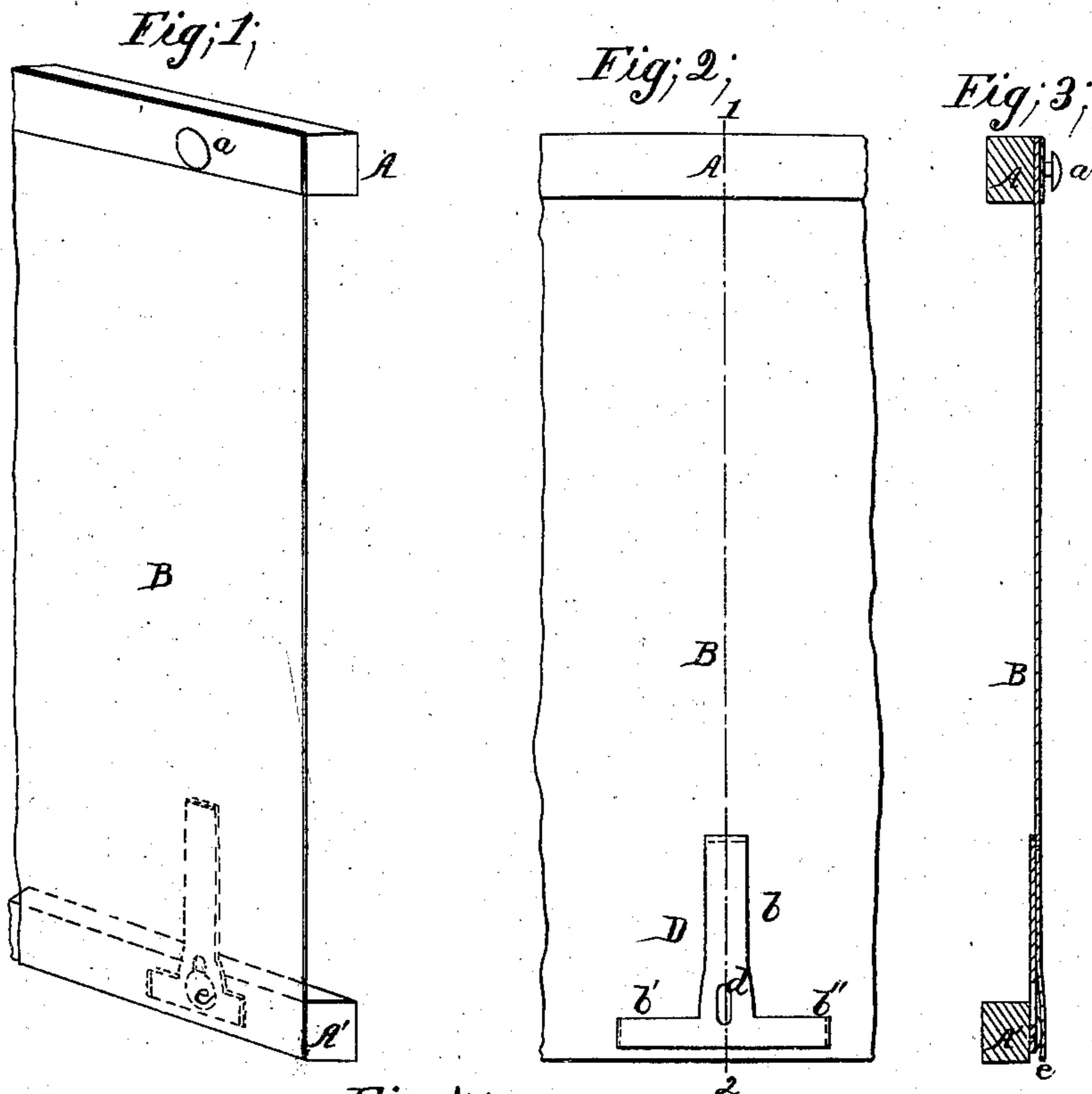
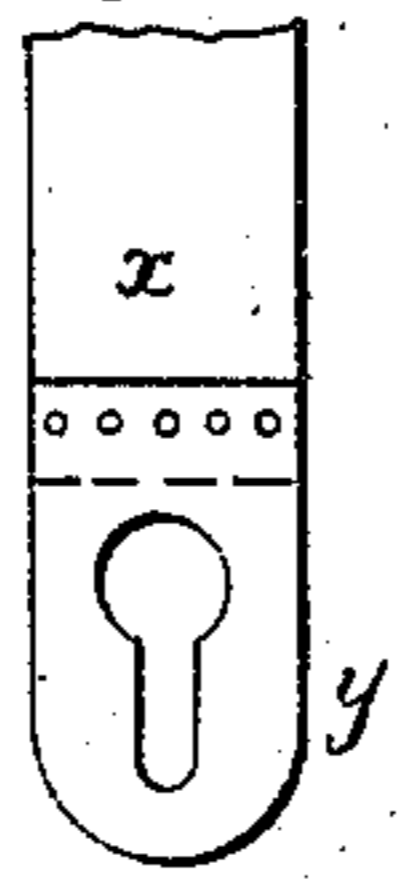


Fig. 6;



Witnesses;  
 Wm. J. ...  
 John Parker.

Inventor;  
 James H. Spencer  
 by his attorney  
 Henry Howson.

# United States Patent Office.

JAMES H. SPENCER, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 86,706, dated February 9, 1869.

## FASTENING FOR CARRIAGE-CURTAINS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES H. SPENCER, of Philadelphia, Pennsylvania, have invented an Improved Fastening for the Curtains of Carriages; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a strip, combined with the curtain of a carriage, and arranged for attachment to a button, or its equivalent, on another curtain, or on the frame of the carriage, all substantially as described hereafter, in order that the occupant of a carriage may fasten and unfasten the curtains from the inside, and so that the difficulties frequently experienced in manipulating the ordinary fastening-appliances may be obviated.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a perspective view of part of a curtain and frame of a carriage with my improved fastening;

Figure 2, a view of the inside of part of the curtain with fastening;

Figure 3, a vertical section on the line 1-2, fig. 2;

Figure 4, a view showing the mode of securing two curtains together with my improved fastening;

Figure 5, a section on the line 3-4, fig. 4; and

Figure 6, a modification of my invention.

On reference to figs. 1, 2, and 3, A and A' represent parts of the frame of a carriage, and B, part of a curtain, *a* being one of the upper buttons for connecting the curtain to the rib A of the frame.

To the inside, near the lower edge of the curtain, are stitched, or otherwise secured, strips D of gum-elastic, and each strip consists, in the present instance, of three arms, *b*, *b'*, and *b''*, the end only of each arm being attached to the curtain, and where the three arms meet, the strip has a hole, *d*, adapted to one of the buttons on the lower rib A' of the frame.

Carriage-curtains, whether made of leather or oil-cloth, are apt to shrink, and become distorted, the but-

ton-holes especially becoming frequently so contracted and stiff that considerable difficulty is experienced in connecting the curtains to the buttons.

This evil is obviated by the employment of the elastic strips D, which will yield and accommodate themselves to the shrinkage of the curtain. At the same time, the material being unaffected by moisture or heat, the holes *d* will always maintain their shape, and be in a proper condition for the reception of the buttons.

Another advantage of my improvement is the facility with which the curtains can be secured from the inside of the carriage, an operation which is next to impossible to perform when the curtains are prepared for being fastened in the usual manner.

The curtains may be provided with the above-described strips, both above and below, and where the curtains have to be connected together, my improved fastening may be employed in a manner which will be readily understood by reference to figs. 4 and 5. A plain strip of gum-elastic, without the lateral projections *b'* and *b''*, may be employed, but I prefer strips of the form, or approximating to the form represented, as they tend to keep the curtain straight.

A non-elastic strip of any suitable material, secured to the inside of the curtain, so as not to be exposed to the action of the weather, will enable the occupant of a carriage to fasten and unfasten the curtains, and will retain its shape and proper condition for adjustment to the button, but elastic strips are, in most cases, to be preferred.

I claim as my invention, and desire to secure by Letters Patent—

The arrangement, on the inside of the curtain, of a strip, D, having a button-hole, *d*, substantially as and for the purpose described.

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

JAS. H. SPENCER.

Witnesses:

JOHN WHITE,  
C. B. PRICE.