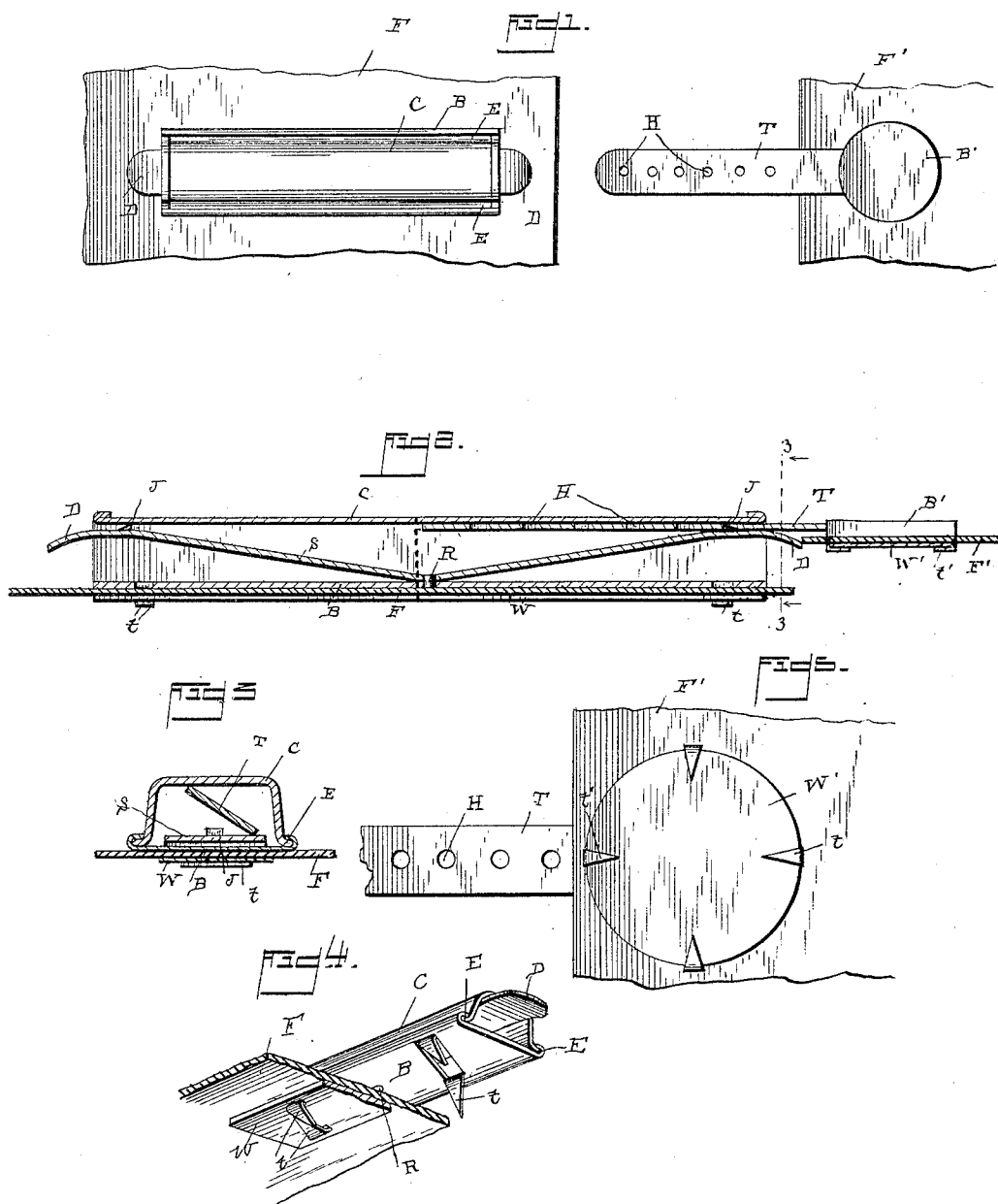


(No Model.)

E. S. RICHARDS.
CARRIAGE CURTAIN FASTENER.

No. 468,080.

Patented Feb. 2, 1892.



Witnesses

Chas. A. Ford.

By his Attorneys,

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Inventor

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UNITED STATES PATENT OFFICE.

EPHRAIM S. RICHARDS, OF MILFORD, INDIANA, ASSIGNOR OF ONE-HALF TO
FRANK S. KEEHN, OF SAME PLACE.

CARRIAGE-CURTAIN FASTENER.

SPECIFICATION forming part of Letters Patent No. 468,080, dated February 2, 1892.

Application filed June 25, 1891. Serial No. 397,485. (No model.)

To all whom it may concern:

Be it known that I, EPHRAIM S. RICHARDS, a citizen of the United States, residing at Milford, in the county of Kosciusko and State of Indiana, have invented a new and useful Carriage-Curtain Fastener, of which the following is a specification.

This invention relates to clasps and buckles, and more especially to devices of that character which are applicable to and useful for connecting two flexible members or one flexible member with a rigid member; and the object of the same is to produce certain improvements in devices of this character.

I have shown and will describe my invention as applied to the curtains of a carriage-top, and by means of which invention they are capable of being connected and disconnected in a new manner and by novel means, although it is to be understood that the device is applicable to other uses than that shown and described.

The invention consists in a novel manner of attaching the members of the clamp to the curtains and in a novel construction and arrangement of parts whereby the members will disconnect or separate under excessive strain, or may be manually disconnected by the twisting of one relatively to the other, all as hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is an elevation of the two members of my improved fastener slightly separated and mounted upon portions of two carriage-curtains. Fig. 2 is a central longitudinal section of Fig. 1 with the members connected. Fig. 3 is a cross-section on the line 3 3 of Fig. 2, showing the tongue in the act of being withdrawn from the casing. Fig. 4 is a perspective detail showing the under side of the casing and illustrating the devices for attaching it to the carriage-curtain. Fig. 5 is a rear elevation showing the manner of attaching the tongue to the other carriage-curtain.

Referring to the said drawings, the letters F F' designate in the present instance carriage-curtains which it is desired to connect at or near their meeting edges, although, as above stated, it will be understood that these

curtains may be any flexible members which it is desired to connect.

To the curtain F is connected the casing C, which is of a cross-section (best seen in Fig. 3) and has its lower edges E outturned. B is the back of this casing, whose edges are turned upwardly over the outturned edges E of the casing-body, and this back is cut near each end so as to form two triangular tongues *t*. In mounting the casing on the curtain F these tongues are passed through the curtain and through a washer W, which is provided with suitable slots for this purpose, the tongues being turned inwardly against the rear face of this washer, as seen in Fig. 4. The ends of the casing are open, and within said casing is secured at its center by a rivet R, passing through the back B, a spring S whose ends project slightly beyond the ends of the casing and are turned downwardly, as at D, while their bodies near their extremities are provided with slightly-raised projections J, borne upwardly by the normal action of the spring into contact with the casing near its ends.

To the curtain F' is connected the tongue T, which is a strip of stiff metal of a size to pass into the casing above the spring S, and which has a number of holes H in its body of a size to engage the projections J. The inner end of this tongue is rigidly secured to a button B', having small pointed tongues *t'*, and in fastening the tongue to the curtain F' these pointed tongues are passed through this curtain and turned inwardly over a washer W', as seen in Fig. 5.

In operation, when it is desired to connect the two members, the tongue T is inserted in one end of the casing above the projecting end D of the spring S, and its insertion bears said end downwardly and allows the holes H to pass over the projection J on the tongue. Having passed the tongue into the casing a sufficient distance to draw the curtains tight, the device is released from the hands of the operator and the curtains are connected. When so connected, should the curtains be subjected to any excessive strain, as is sometimes the case, the tongue will draw out of the casing because the spring will yield sufficiently to allow the projection J to disen-

gage the holes H in the tongue and the latter will draw forcibly out of the casing; but under ordinary circumstances when it is desired to disconnect the members they are grasped in the hands of the operator and twisted slightly with respect to each other, as seen in Fig. 3. The result will be that one edge of the tongue T will bear upwardly against the top of the casing, while its other edge will depress the spring S and throw its projection J out of engagement with the holes H in the tongue, and the members can then be drawn apart, as will be clear.

I have shown the casing C as open at both ends, which is sometimes the case where the curtain F is but a narrow strip or where the tongue may be locked into either end of the casing; but it is to be understood that in many cases the casing may be half the length, as indicated by dotted lines in Fig. 2, when the spring would be secured to the back at one end and project and be turned down at the other end only. This fastener is especially useful on carriage-curtains, owing to their liability to sudden strains by which they have been hitherto torn and their exposure to the weather, which does not affect this device. When used to connect other "curtains," (by which term I mean to include any members between which a fastening or connection of this character is useful,) it is obviously necessary that at least one member shall be flexible or that the members shall be capable of a slight twist relative to each other; otherwise the convenient mode of disconnection above described would not be available.

I do not confine myself to the exact details of construction, as considerable change may be made therein, as fancy and the exigencies of the case may require; neither do I limit myself to the use of the particular attaching devices for securing the members to the curtains in connection with the specific form of tongue and casing, because other attaching

devices might be used, and, in fact, might be preferable if the device were used for some other purposes than that illustrated; but in such cases as for connecting carriage-curtains I consider these attaching devices highly preferable.

What is claimed as new is—

1. The combination, with a casing of rectangular cross-section having open ends and a leaf-spring secured within the casing, with its extremities projecting slightly beyond said ends and turned down, said spring having a projection adjacent each end of the casing, which is borne normally against one flat side of such casing, of a rigid flat tongue of the same width as the spring, and a series of holes in the tongue throughout its length, any one of which frictionally, but not positively, engages said projection and is adapted to be moved over the same, as and for the purpose set forth.

2. The combination, with two curtains and a tongue secured to one of them and having a number of holes in its body, of a casing the sides of whose front are bent downwardly and outwardly, the edges of the back being bent over said outwardly-bent edges and the body of said back being cut to form pointed tongues, a washer against the rear face of the remaining curtain, said washer having slots and said pointed tongues being passed through the curtain through said slots and bent down upon the washer, and a spring within the casing having a projection engaging one of the holes in the tongue, substantially as described.

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

EPHRAIM S. RICHARDS.

Witnesses:

LEROY MILES,
SAMSON J. NORTH.