J. ENDERS.

Carriage-Top.

No. 48,386. Patented June 27, 1865.

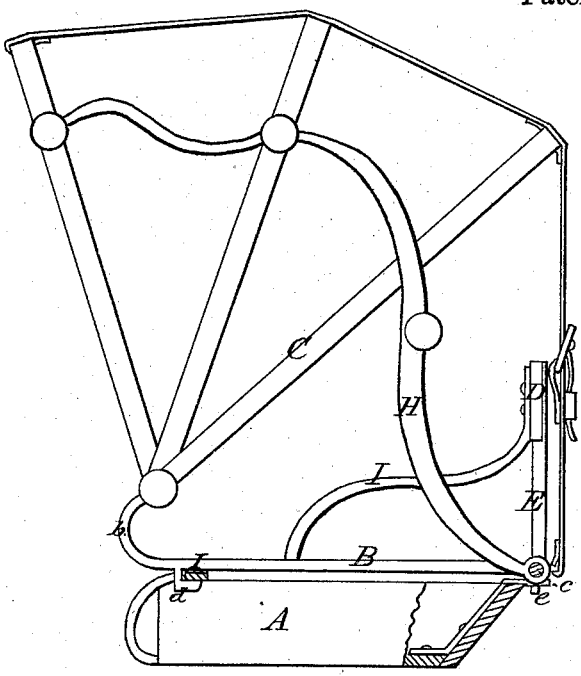

Fig. 1.

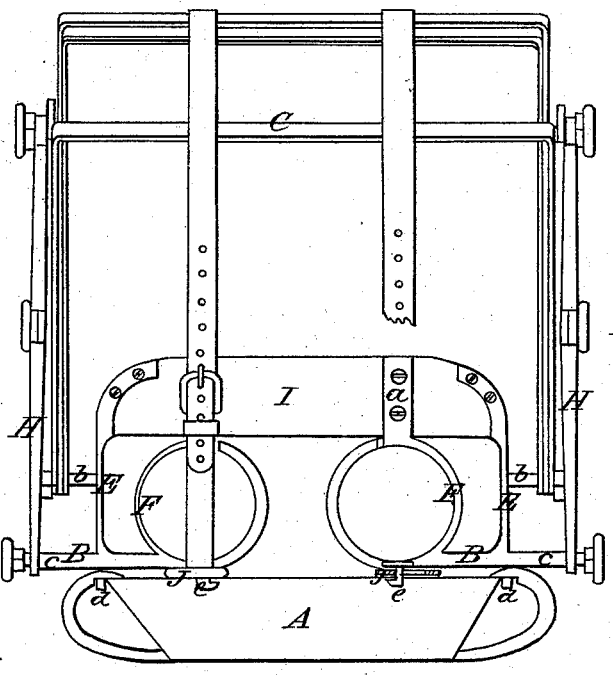

Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH ENDERS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CARRIAGE-TOPS.

Specification forming part of Letters Patent No. **48,386**, dated June 27, 1865.

To all whom it may concern:

Be it known that I, JOSEPH ENDERS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Buggy-Tops; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a sectional side elevation of this invention; Fig. 2, a rear elevation of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to remove the weight and strain of the top, when the buggy is in motion, from the rear edge of the seat as ordinarily constructed to the lazy-back, and also to simplify and facilitate the removal of the top in shifting-top buggies.

The invention consists in the employment or use of two braces and pillars, in combination with the rail and lazy-back of a buggy-seat, and with the joint which governs the position of the bows of the top in such a manner that when the top is raised and the joint locked the strain exerted by said joint will keep the rail, and with it the entire top, in position, and the whole strain of the top, when the buggy is in motion, is thrown on the lazy-back instead of on the rear edge of the seat, as usual.

The invention consists, also, in the employment or use of hook-catches and spring-supports, in combination with the seat, the rail, and the lazy-back of the shifting-top buggy in such a manner that said top can readily be attached to and detached from the seat, and the danger of a spontaneous detaching of the same is avoided.

A represents the seat of a buggy, which is supported by the axles of the wheels in the usual manner. This seat is provided with a rail, B, which supports the top C and the lazy-back D. Said lazy-back rests upon two pillars, E, which rise from the rail and extend over the ends of the back, as clearly shown in Fig. 2 of the drawings. It is further supported by open rings F, which form the rear ends of the rail, and from which flanges *a* extend over the rear surface of the back and are secured thereto by screws or other suitable means. The lazy-back is further steadied in its position by braces I extending from the rail up to its front side, as shown in Fig. 1.

From the rail extend two curved arms, *b*, in front and two other straight arms, *c*, in the rear. The curved arms *b* form the bearings on which the bows G turn up or down, and the arms *c* form the fulcra for the lower ends of the joints H. If these joints are straightened out or locked so as to support the top when the same is raised, the strain exerted by said joints has a tendency to throw the outer ends of the arms *c* down. This strain is counteracted by the pillars E and open rings F, which throw the strain of the top on the lazy-back D, and consequently the rear edge of the seat is relieved from all strain of the top when the buggy is in motion. The open rings F, and also the pillars E, form springs, which allow the lazy-back to give to the motion of the top and of the buggy, and the entire seat is rendered light, compact, and strong.

The rail is secured to the seat by means of hook-catches *d e*, which either catch over the edges of the straps J or into loops *f* formed in their ends. In order to remove the top from the seat the catches *e* are sprung out of the loops *f* at the rear edge of the seat, and by a slight forward motion of the top the hooks *d* are disengaged from the ends of the straps near the front end of the seat, and the top can be taken off.

In order to replace the top, the hooks *d* are first made to catch under the ends of their respective straps, and then the catches *e* are pressed down into the loops *f*, there being sufficient elasticity in the open rings F to allow said catches to spring into or out of their loops, as the case may be. When the top is raised and locked by the joints the strain exerted by said joints on the arms *c* of the rail has a tendency to throw said rail back, and consequently to keep the hooks *d* firmly locked over the edges of the straps J. It must be remarked, however, that instead of the hooks *d* and catches *e* ordinary screws might be employed, or one or more screws might be used,

in conjunction with two or more hooks; but in practice I find the hook-catches superior to screws, because they allow of attaching and detaching the top instantaneously, and when once properly attached the hooks will retain the top beyond all danger of a spontaneous disengagement. Furthermore, the hooks, being rigidly attached to the rail, are not liable to work loose and get lost.

It must be further remarked that I do not wish to confine myself to the precise form or shape of the open rings F, which form the ends of my rail. Instead of being formed into rings said ends might be left straight, or they might be curved in any other suitable manner.

What I claim as new, and desire to secure by Letters Patent, is—

1. The pillars E and open rings F, or their equivalents, formed by the rear ends of the rail B, in combination with braces I, lazy-back D, and top C, constructed and operating substantially as and for the purpose set forth.

2. The hooks *d* and catches *e*, in combination with the rail B and straps J secured to the seat A, substantially as and for the purpose specified.

JOSEPH ENDERS.

Witnesses:
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