

J. R. HAINES.

SNAP-HOOK.

No. 184,709.

Patented Nov. 28, 1876.

Fig. 1.

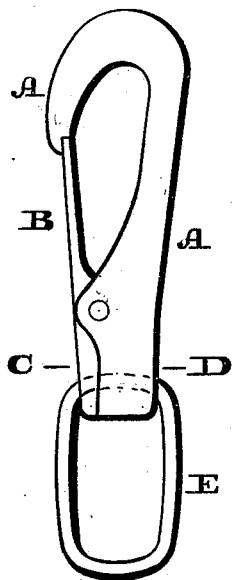


Fig. 2.

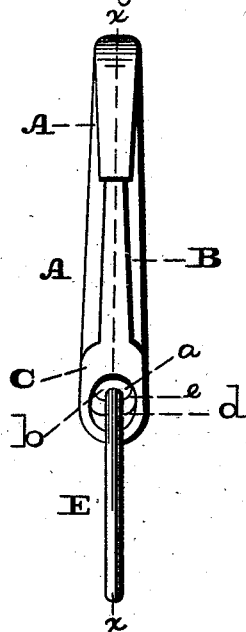


Fig. 3.

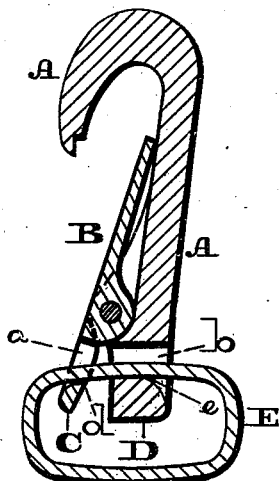
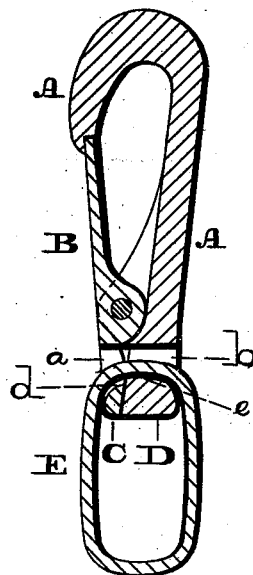


Fig. 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOEL R. HAINES, OF CROSSWICKS, NEW JERSEY.

## IMPROVEMENT IN SNAP-HOOKS.

Specification forming part of Letters Patent No. 184,709, dated November 28, 1876; application filed September 26, 1876.

*To all whom it may concern:*

Be it known that I, JOEL R. HAINES, of Crosswicks, in the county of Burlington and State of New Jersey, have invented a new and useful Improvement in Snap-Hooks; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of the snap-hook embodying my invention. Fig. 2 is a front view thereof. Figs. 3 and 4 are central sections in line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a snap-hook in which the tongue is locked by a link or ring fitted common to the hook and tongue, the parts being so constructed that strain will not be transmitted to the tongue.

Referring to the drawings, A represents the hook, and B the tongue, which is pivoted thereto, and adapted to close against the same. The tongue and the shank of the hook are extended, as at C D, beyond the point of axis of the tongue, and the extensions have eyes or openings *a b*, respectively, the extensions coming together when the tongue is closed, and separating when the tongue is opened.

Through the eyes *a b* will be passed a link

or ring, E, by which the snap-hook may be attached to a strap, chain, or other connection.

It will be seen that the tendency of the link or ring is to keep together the two extensions C D, and, consequently, cause the tongue to engage with the hook, thus closing the latter, the action of the link or ring on the extension C being that of lateral pressure, whereby the tongue is closed and held closed.

In order, however, to prevent linear strain on the tongue or the axis thereof, I elongate the eye *a*, so that its lower or outer wall *d* is farther removed than the lower or outer wall *e* of the eye *b* of the hook; consequently the link or ring E hangs only on the wall *e* of the eye of the hook, and thus transmits strain to the hook or shank thereof, (the strongest portion,) whereby the tongue and its axis (the weakest portions) will be relieved of such strain.

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

The hook A, with the extension D, having an eye, *b*, in combination with the tongue B, having an extension, C, with an elongated eye, *a*, all constructed and arranged to operate substantially as and for the purpose set forth.

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Witnesses:

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