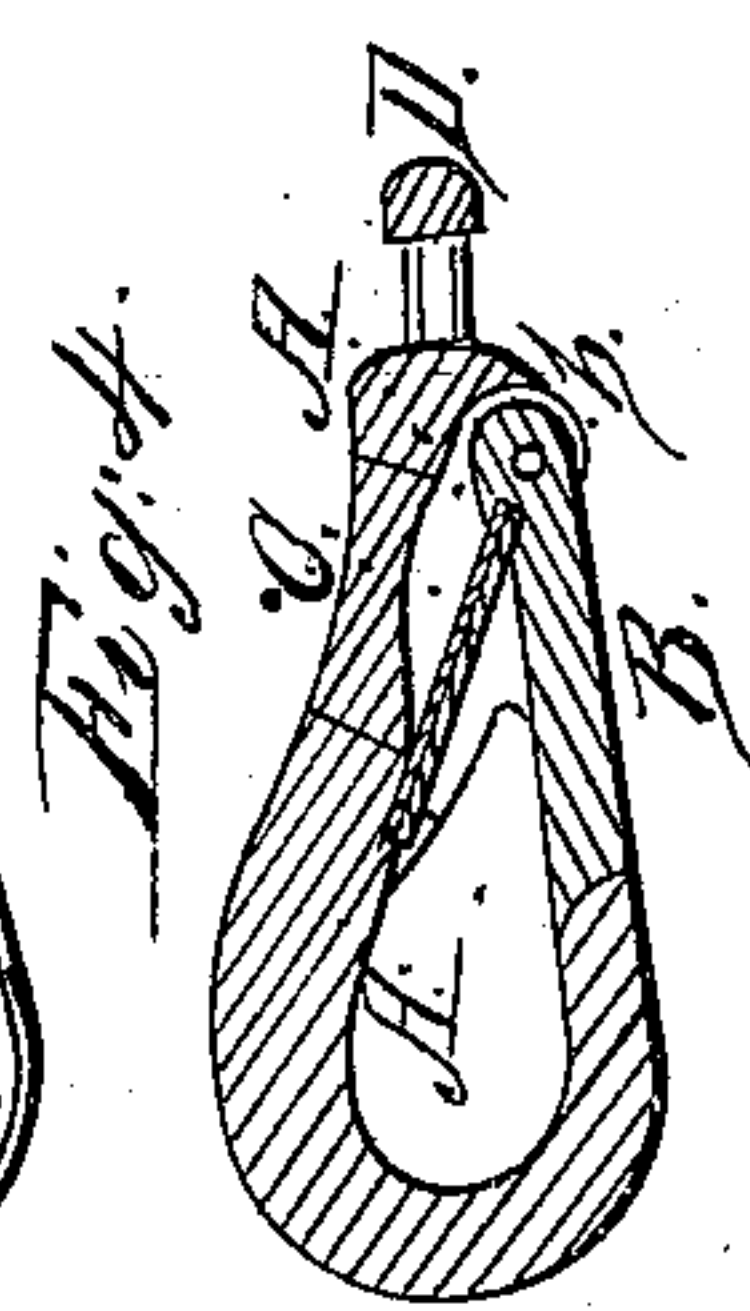
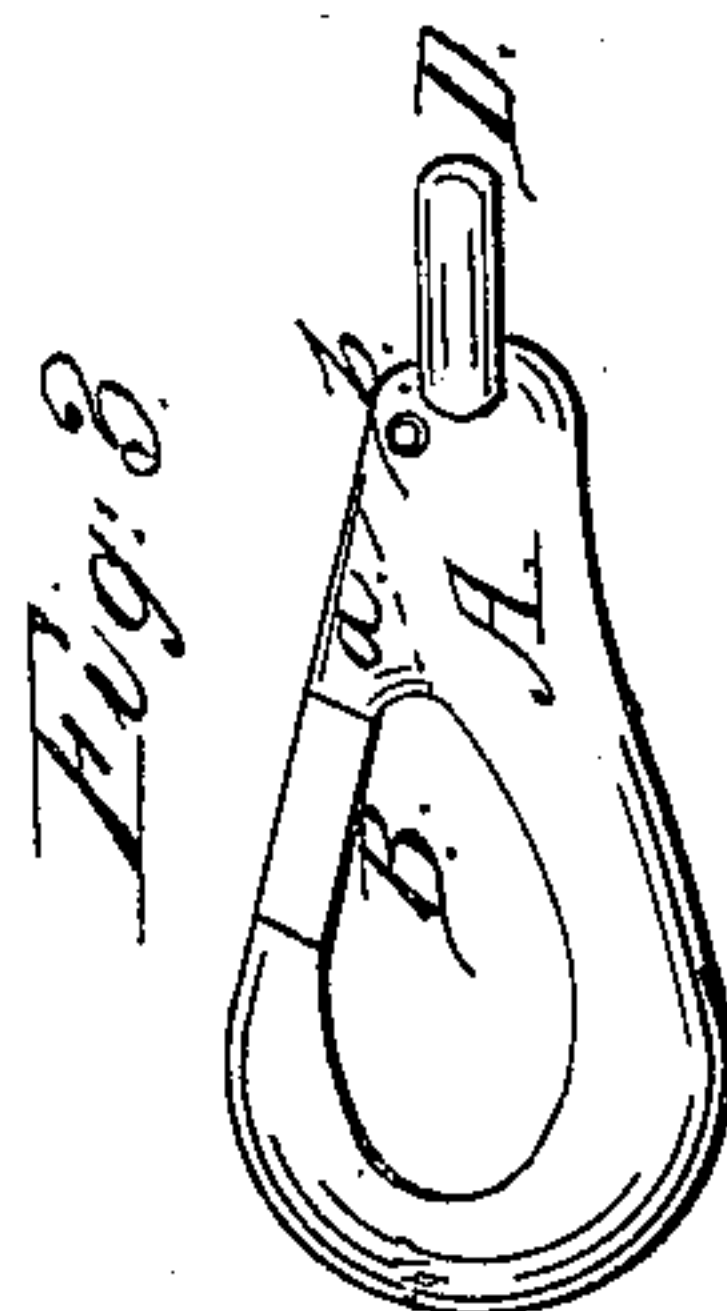
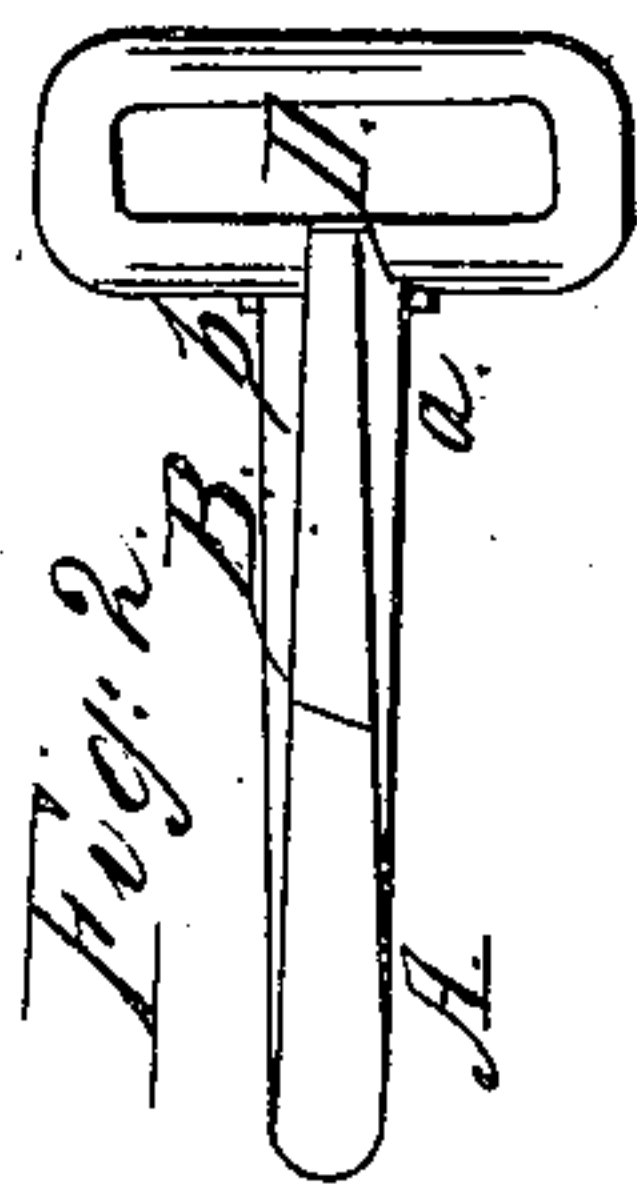
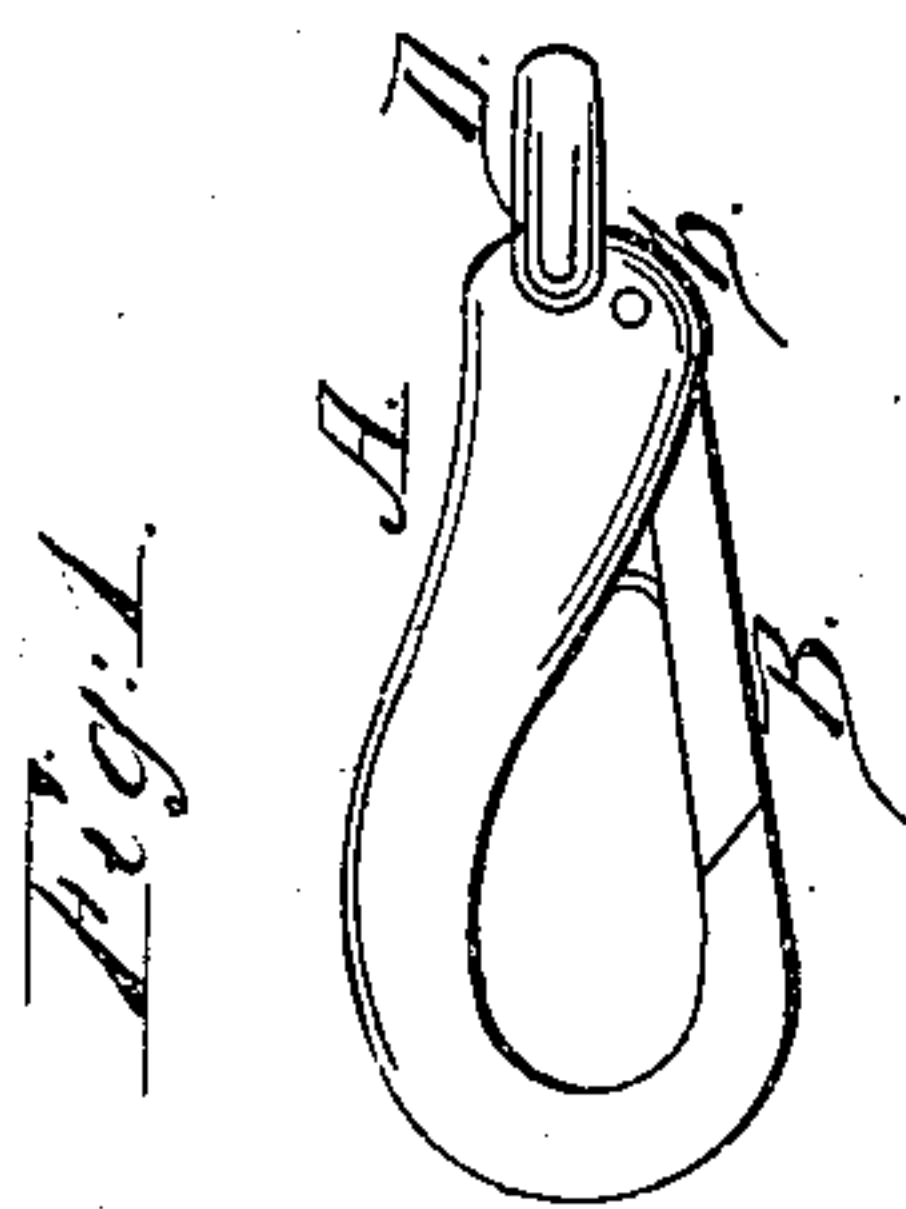
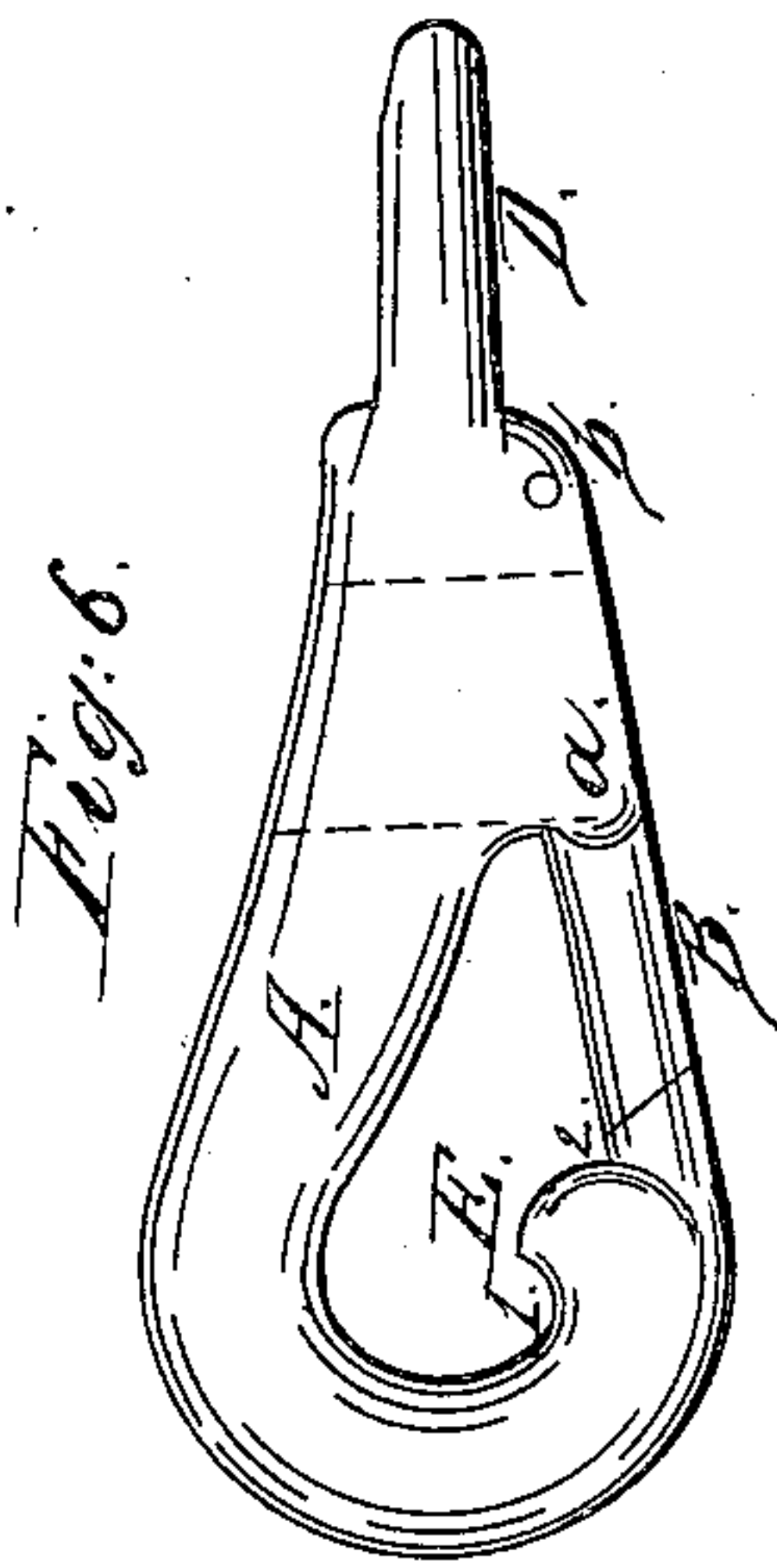
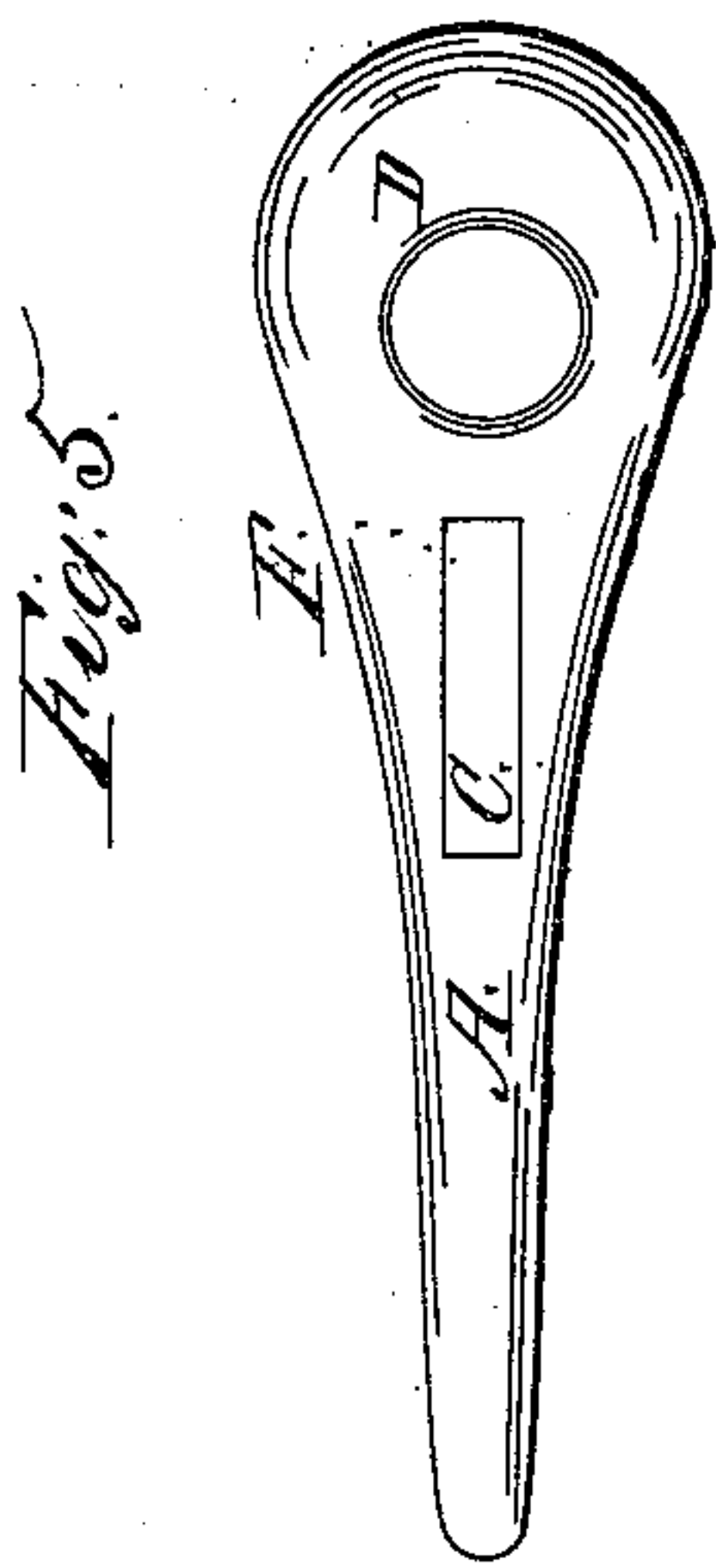


*C. S. Abbeel,*  
*Snap Hook.*

*N<sup>o</sup> 41,131.*

*Patented Jan. 5, 1864.*



*Witnesses:*  
*Geo. Perkins,*  
*M. E. Mans.*

*Inventor,*  
*C. S. Abbeel.*

# UNITED STATES PATENT OFFICE.

C. S. ABEEL, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN SAFETY-HOOKS.

Specification forming part of Letters Patent No. 41,131, dated January 5, 1864.

*To all whom it may concern:*

Be it known that I, C. S. ABEEL, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Safety-Hooks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

In the said drawings, which are hereunto annexed, Figure 1 represents a side view of my invention; Fig. 2, a front view thereof. Fig. 3 shows the reverse side of Fig. 1. Fig. 4 represents a side sectional view of the same; and Figs. 5 and 6 respectively represent a back and side view of a modified form of my invention, to be used when greater strength is required, as hereinafter set forth.

Similar letters in the different figures in the drawings denote corresponding parts of my invention.

The nature of my invention consists in a safety-hook constructed in two parts, forming together a close link, one of said parts being adjustable at one end upon a pivot and kept in place by means of a peculiar arrangement of a spring therewith, which adjustable bar, however, may be pressed inward, so as to allow a link or ring or any equivalent device to be attached thereto when, by the action of the spring, the bar is thrown back to place, and thus is avoided the accidental detachment of the hook which is so common with hooks of the ordinary construction.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, reference being had to the aforesaid drawings.

My improved safety-hook may be manufactured of brass, iron, or any other suitable metal.

A represents the hook, and B the adjustable bar, pivoted or fastened at one end to the hook by the rivet *b*.

C represents the spring, which is placed, as shown, in the chamber A' and keeps the bar B in place. This spring may be a single narrow elastic piece of steel of suitable strength; but I prefer to have it composed of two or

more thin pieces laid parallel with each other, whose aggregate elastic force is sufficient to keep the bar B in place, as in the latter case the danger or liability of the spring's breaking is much less than in the former. The spring is not fastened to the hook or bar, but one end is placed in a slight groove or mortise in the hook, and the other rests against the bar either in a groove, as shown in the drawings in Fig. 4, or simply against a projection or shoulder thereon, the only point being to hold the spring into the mortise in the hook, and so keep it in place. The hook may be constructed on both sides, as shown in Fig. 1, but for additional safety and security I prefer to provide it with a guard, *a*, on one or both sides of the bar B, to prevent any accidental pressure on the top of the hook from depressing the bar and detaching the hook.

D represents that part of the hook whereby the hook is fastened to the chain or strap.

Figs. 5 and 6 represent a larger hook, designed for chains and trace-fastenings where a stronger hook is needed. The only difference between this form and the one previously described consists in providing the hook with the interior projection, E, and the opening F, which is formed by extending the chamber A' entirely through the hook, so as to allow the mud and dirt which would obviously collect therein, when employed for the last-named uses, to readily pass out and not incumber the operation of the spring. The object of the projection E is to prevent the eye of the trace from being detached from the hook when it is thrown back so as to lie against the bar B, as when the eye is at position 1 in front of the projection, although the eye might press upon the bar B, still the projection would prevent the eye from slipping back and escaping; and when in position 2, back of said projection, the eye would strike the bar back of the guard *a*, which would prevent the said bar from yielding so as to allow the eye to be detached.

This hook may be used for all the purposes and uses to which hooks are adapted.

Having described my improved safety-hook, I will now specify what I claim as new therein and desire to secure by Letters Patent:



1. The combination of the hook A, the adjustable bar B, and the peculiarly-arranged spring C, all arranged and operating substantially as and for the purposes herein specified and shown.

2. In combination with the above, the employment of one or two guards, *a*, for the purposes specified.

3. In combination with a snap-hook, arranged as shown, the interior projection, E, for the purposes herein shown and set forth.

C. S. ABEEL.

Witnesses:

GEO. PERKINS,  
W. E. MARR.