

Erastus M. Kinne.

Snap Hook.

No. 120,386.

Patented Oct. 31, 1871.

fig. 1.

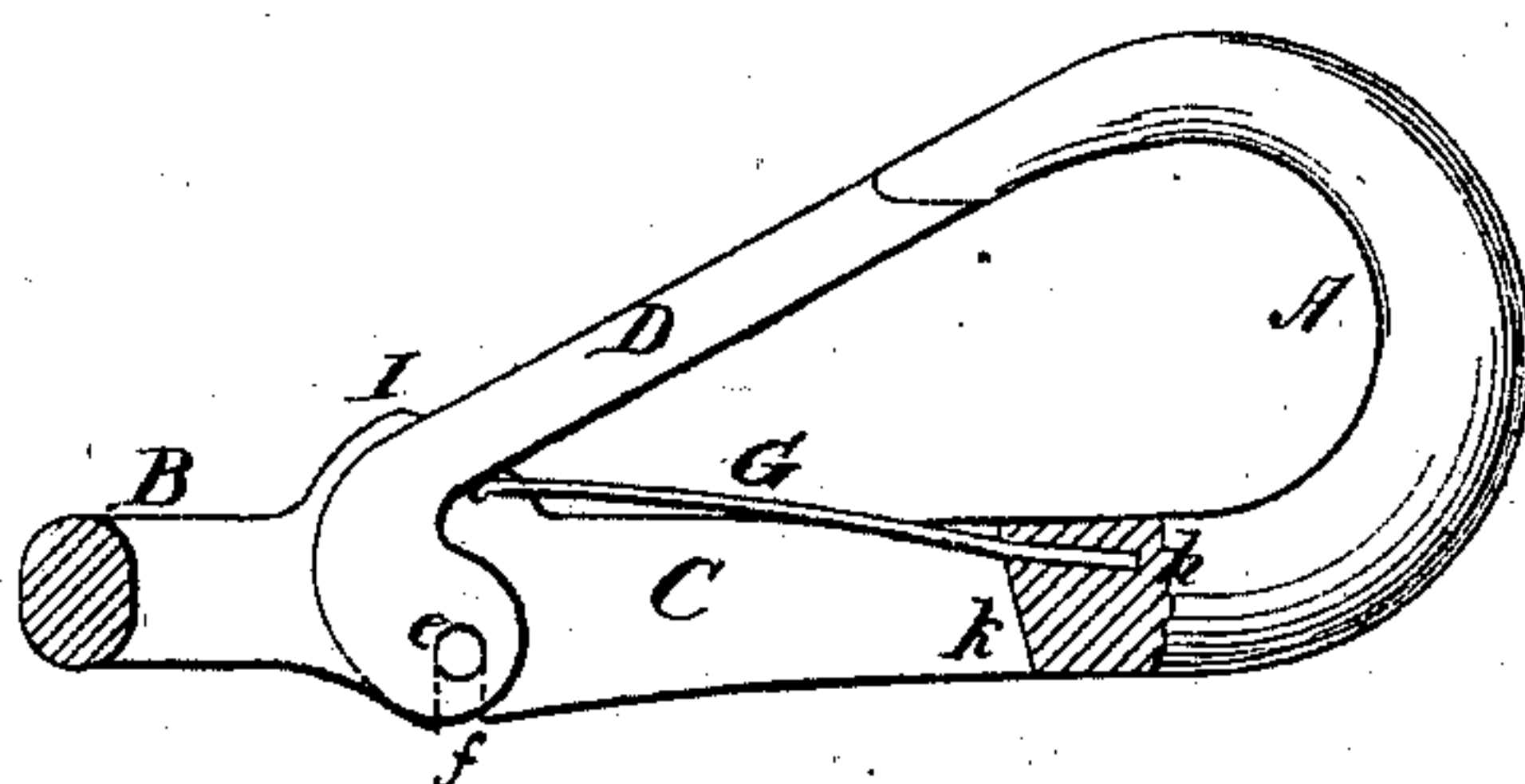
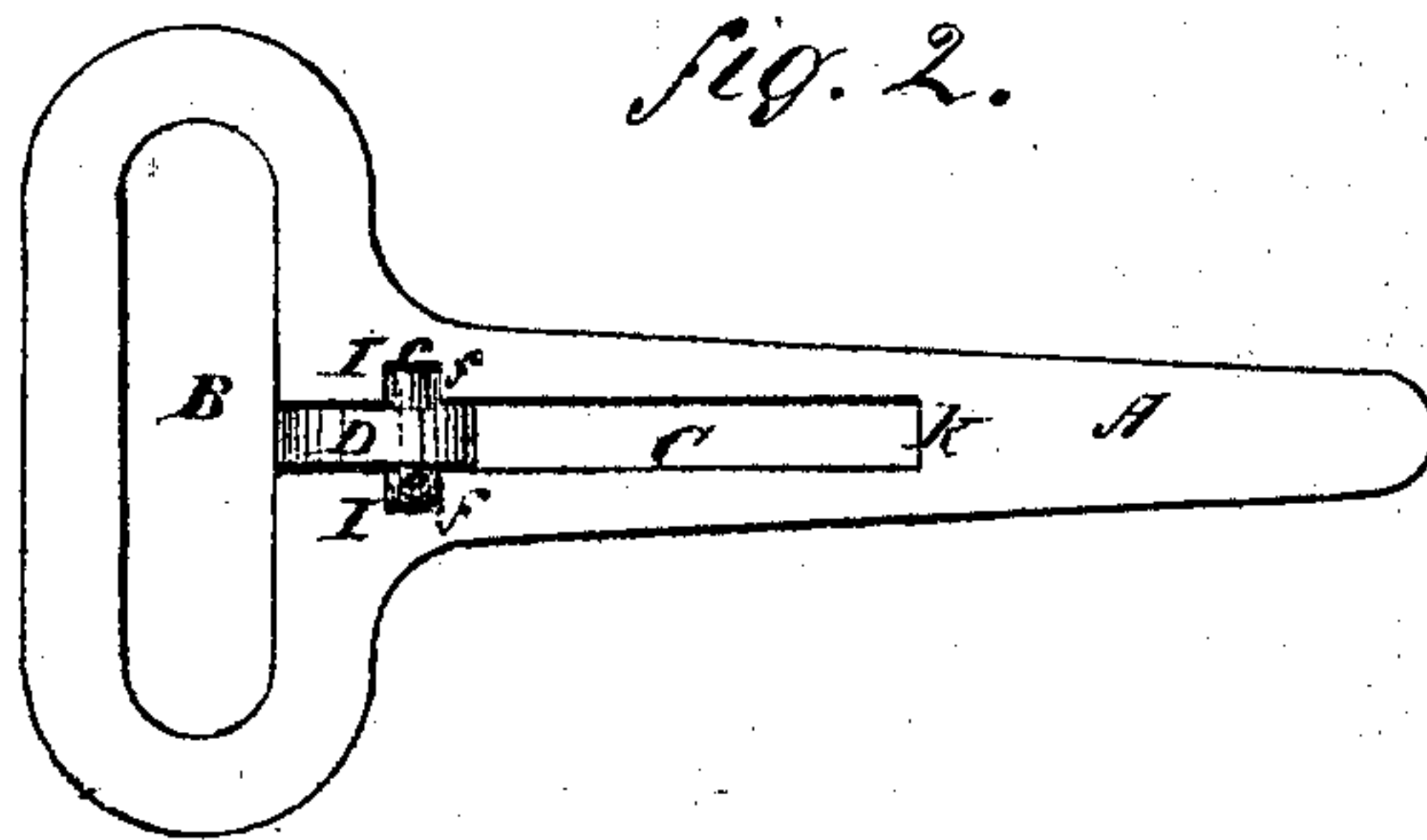


fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN SNAP-HOOKS.

Specification forming part of Letters Patent No. 120,386, dated October 31, 1871; antedated October 14, 1871.

To all whom it may concern:

Be it known that I, ERASTUS M. KINNE, of Cuba, in the county of Allegany and State of New York, have invented a new and Improved Snap-Hook; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a longitudinal section, and Fig. 2 a bottom plan view.

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

My invention has for its object to improve that class of snap-hooks for harness in which the tongue is made detachable, whereby the same are rendered more efficient and durable. In snap-hooks of this class it has been customary to cast the body and the loop in one piece, with that portion of the loop adjoining the body forming a cross-bar upon which the tongue turns, the latter being held to its place by a flat spring cast into the hooks, or riveted thereto in such a manner that its free end shall bear against the tongue and hold it in place. The spring works in a slot formed between the bar and the bend of the hook, in which slot also is placed the tongue.

This construction is objectionable for the following reasons, to wit: First, the spring, being firmly secured to the hook, cannot be replaced, and, if broken, the whole hook is thereby rendered worthless. Secondly, the tongue cannot be detached without the employment of some pointed instrument, inasmuch as the cross-bar against which it bears and upon which it turns prevents the compression of the spring sufficiently to allow the rear end of the tongue to clear the bar. Thirdly, the recess in the body of the hook is so situated as to collect dirt and prevent the free operation of the spring and tongue.

My invention is designed to overcome these defects, and for this purpose the body of the hook is cast without the cross-bar, the slot opening directly into the hook. The tongue is formed with an enlarged rear end, having trunnions cast upon opposite sides, which trunnions have their bearings in recesses formed in the body of the hook at the rear end of the slot, and opening outward upon the back. By this construction of the body and tongue the latter is easily applied, being passed into the slot through the loop, the trunnions dropping readily into their bearings. A flat spring is employed to hold the tongue in place, and is so connected to the body that it can be easily removed and replaced when for

any purpose this becomes necessary. Owing to the formation of the slot so that it shall communicate directly with the loop a space is necessarily left beneath the tongue and spring, which is of such shape and size as to prevent the accumulation of dirt.

In the accompanying drawing, A is the body or main portion of the snap-hook, cast in one piece with the loop B so as to form a large slot, C, opening directly into said loop, as shown in Fig. 1. D is the tongue, formed with an enlarged rear end rounded to correspond to the curvature of the body at the open end of the slot, and provided with the trunnions *e*. These trunnions are adapted to enter recesses *f*, formed in the proximate cheeks of the slot, and opening outward upon the back of the hook, as shown in Fig. 2. G is the spring, attached to the body A at the front of the slot by being slipped into a recess, *h*, as shown. The free end of the spring bears against the under side of the tongue above the trunnions, serving to hold the latter within the recesses *f*, and the end of the tongue in contact with the point of the hook. In order to detach the tongue its point is held by one hand against the point of the hook, while its rear end is pressed by the other hand against the spring G until the trunnions *e* have cleared their recesses, when the tongue readily drops out through the loop B. The tongue being removed the spring can be also lifted out and renewed, or a new one fitted to its place, as may be desired. The adaptation for the removal of the spring is of much value, inasmuch as it prevents the entire loss or destruction of the hook when the spring becomes broken. I I are guards formed upon the body at the rear end of the slot to protect the tongue from being displaced, or its trunnions from being bent or broken by a casual blow. The slot C is entirely open upon the back of the hook from the tongue to the shoulder *k*, and therefore presents no surfaces or angles for the accumulation of dirt to obstruct the free movement of the spring and tongue.

Having thus described my invention, what I claim as new is—

The hook A with recesses *f*, and with the slot C opening directly into the loop, the detachable tongue D, and the detachable spring G, all constructed, arranged, and operating substantially as described, for the purpose specified.

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