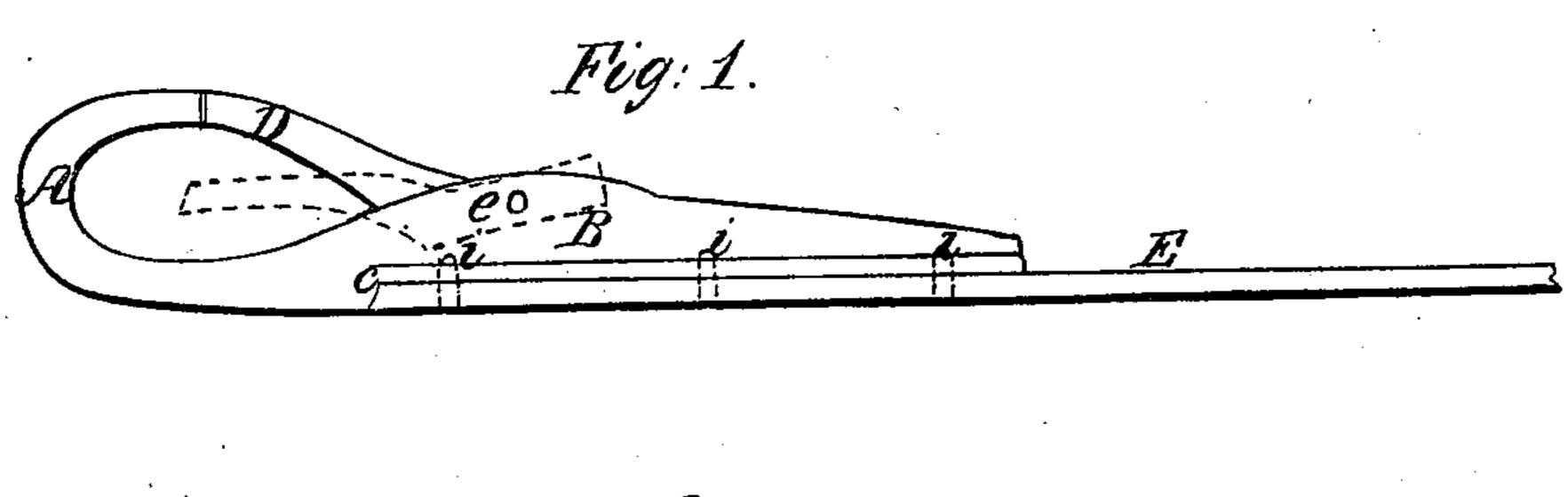
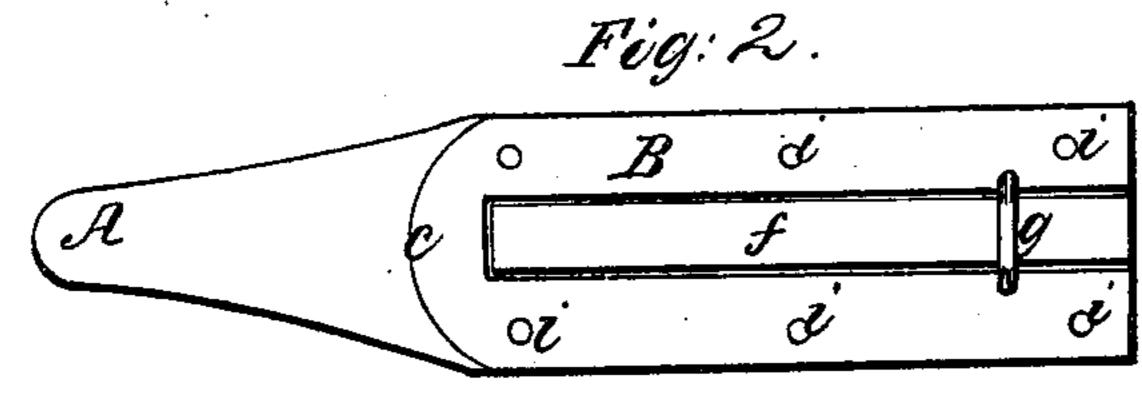
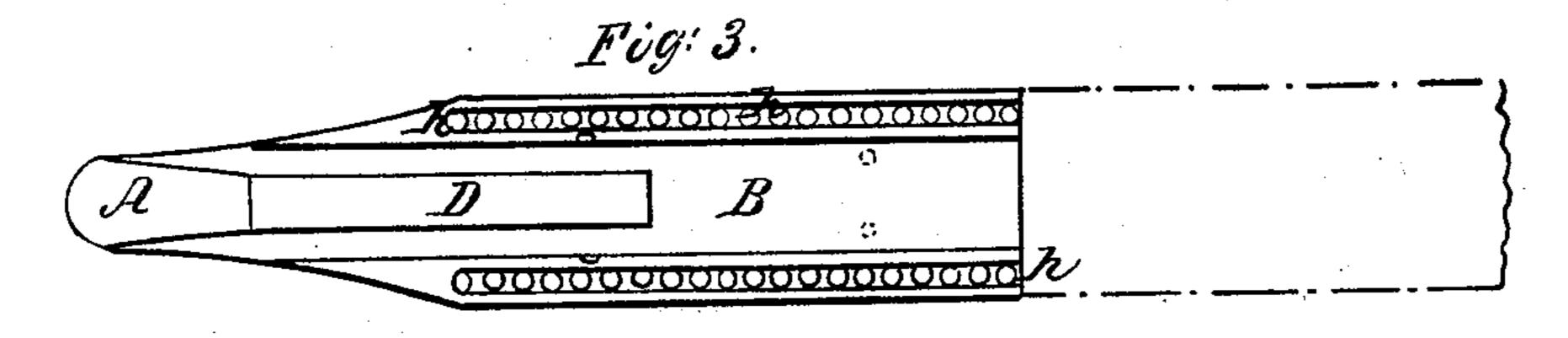
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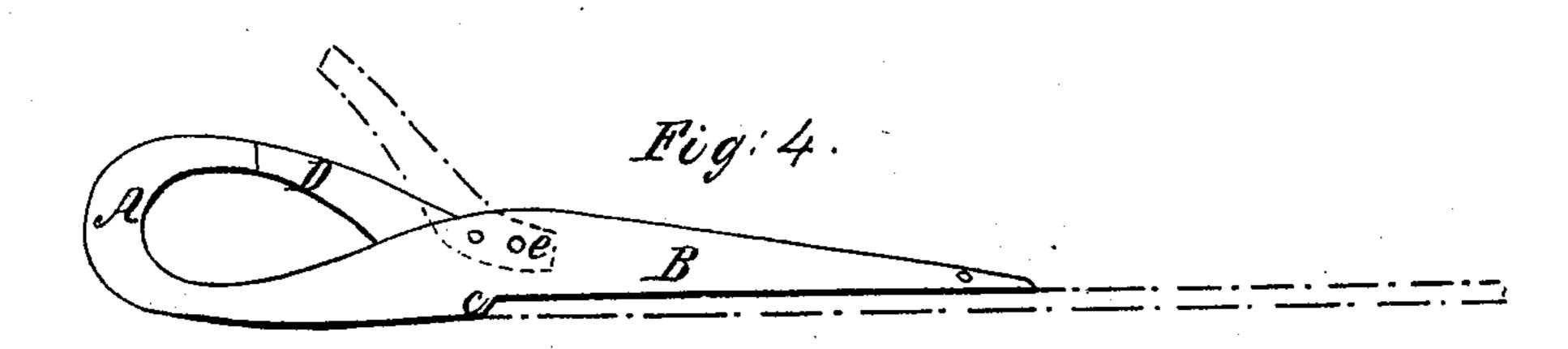
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## Anited States Patent Office.

## RALPH L. FRASER, OF WESTERNVILLE, NEW YORK.

Letters Patent No. 96,417, dated November 2, 1869.

## IMPROVED SNAP-HOOK.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, RALPH L. FRASER, of Westernville, in the county of Oneida, and State of New York, have invented certain new and useful Improvements in Spring or Snap-Hooks, for attaching reins and other parts of harness, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of a hook, constructed according to my improved method, and attached to a leathern strap or rein.

Figure 2 is a back view of the hook.

Figure 3 is a front view of the same, showing a modification of the mode of attaching to the strap, the latter being shown in red lines.

Figure 4, a side view of another form or modification of the same.

Like letters of reference indicate corresponding parts in all of the figures.

My invention is especially designed for use upon driving-reins, but it is equally applicable for hitching-straps and other parts of harness.

Upon reins, it dispenses with the buckle and loop, greatly facilitating, both in time and effort, the fastening and unfastening; and by its rigidity of connection, obviates the "slack" which occurs in the looseness of the joints of the ordinary snap-hook and the strap, while it is more neat and tasteful in appearance.

As represented in the drawings, the hook A has a body, B, of the width of the strap for which it is designed, which is recessed on the back to receive said strap, leaving, by preference, a shoulder at the end, as at c.

The hook is provided with the usual tongue D, pivoted to the body at e, and held in position by the pressure of the spring f, which is concealed in a recess in the body, between the back of the same and the leather.

It is secured by a wire staple or clamp, g, the ends of which pass through and are riveted on the top of B; or lugs may be cast upon the body for the same purpose, with equivalent effect.

In this position the spring is protected, by the metal

body and the leather strap, from dirt, moisture, or injury, and is thereby rendered more durable and serviceable than when exposed to these influences.

I attach the strap to the body of the hook, either by screws or rivets *i i*, or by stitching, as shown at *h*, fig. 3. When designed for stitching, the edges of the metallic plate forming the body are grooved or channelled, so that the stitches are not subject to wear.

The form of the body of my improved hook, tapering gradually from the hook-portion to the opposite end of the body, possesses important advantages over ordinary snap-hooks, in that, by applying and fastening the strap on a parallel plane with it, it obviates the necessity of doubling the strap into a loop, and also dispenses with the billet for attaching the buckle, thus rendering it stronger, neater, and more convenient for handling, from the rigidity which the end of the strap receives from the metal. The strap lasts longer, for the reason that there is no friction on the leather, as when the hook and strap are interlocked together, or where it is buckled into the ordinary ring of the bit.

The hook should, by preference, be formed to incline back from the body, so that the surface. where the rein or strap is attached, shall be on a line with that point in the inner portion of the hook which is in contact with the bit-ring. This causes the rein to be drawn or hung in a straight direction from the bit-ring.

They may be made of wrought, malleable, cast-iron, or other metal.

What I claim as my invention, is-

A snap-hook, consisting of the hook A, spring f, tongue D, elongated body B, and the recessed back for receiving the strap, so as to form a flushed joint between the back and strap, the whole constructed substantially as described.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

RALPH L. FRASER.

Witnesses:

ERASTUS ELY, A. E. BUSSEY.