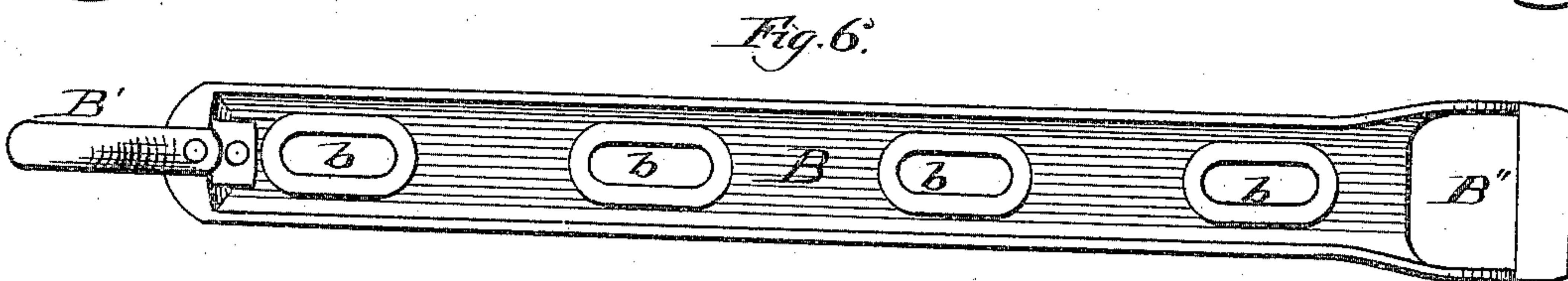
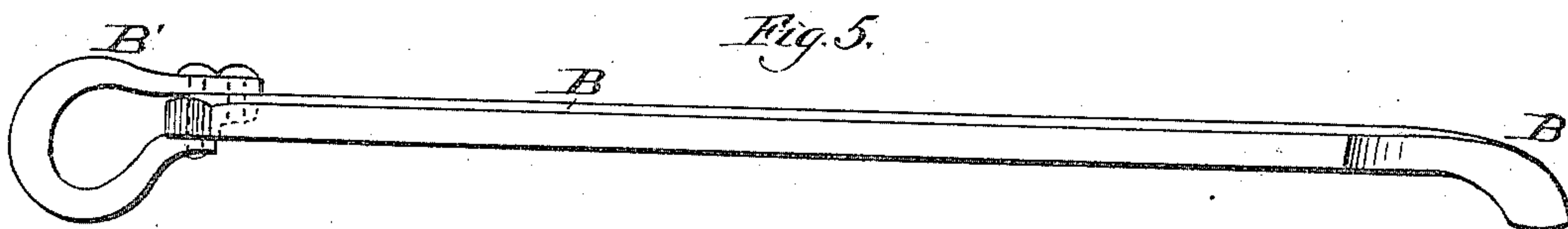
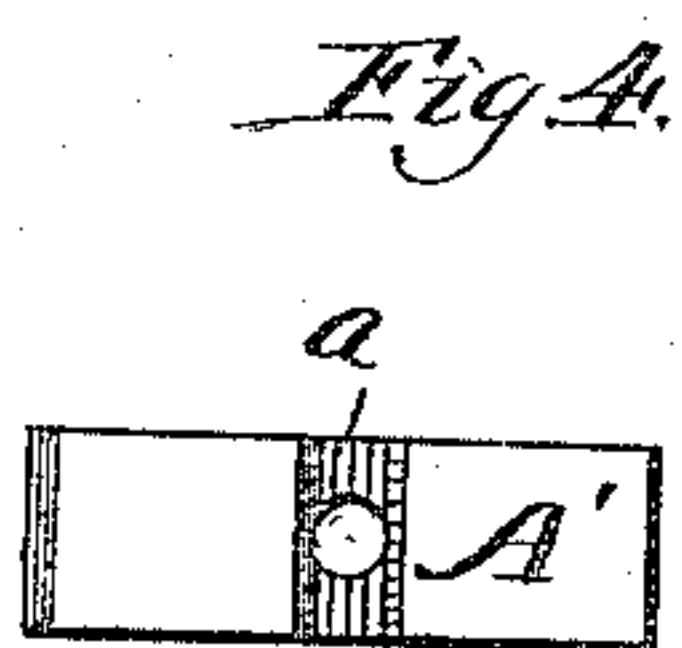
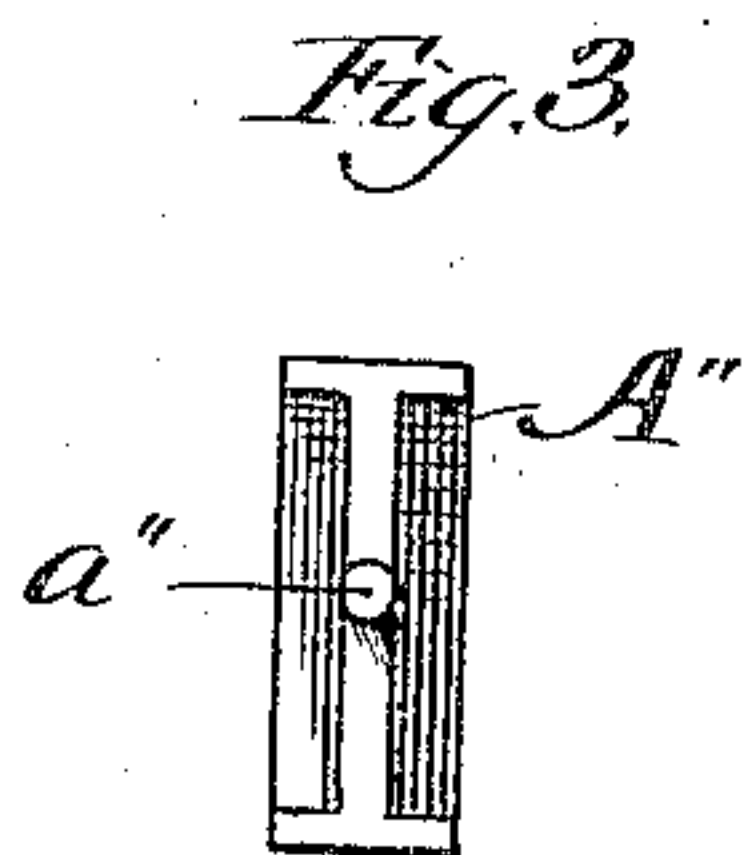
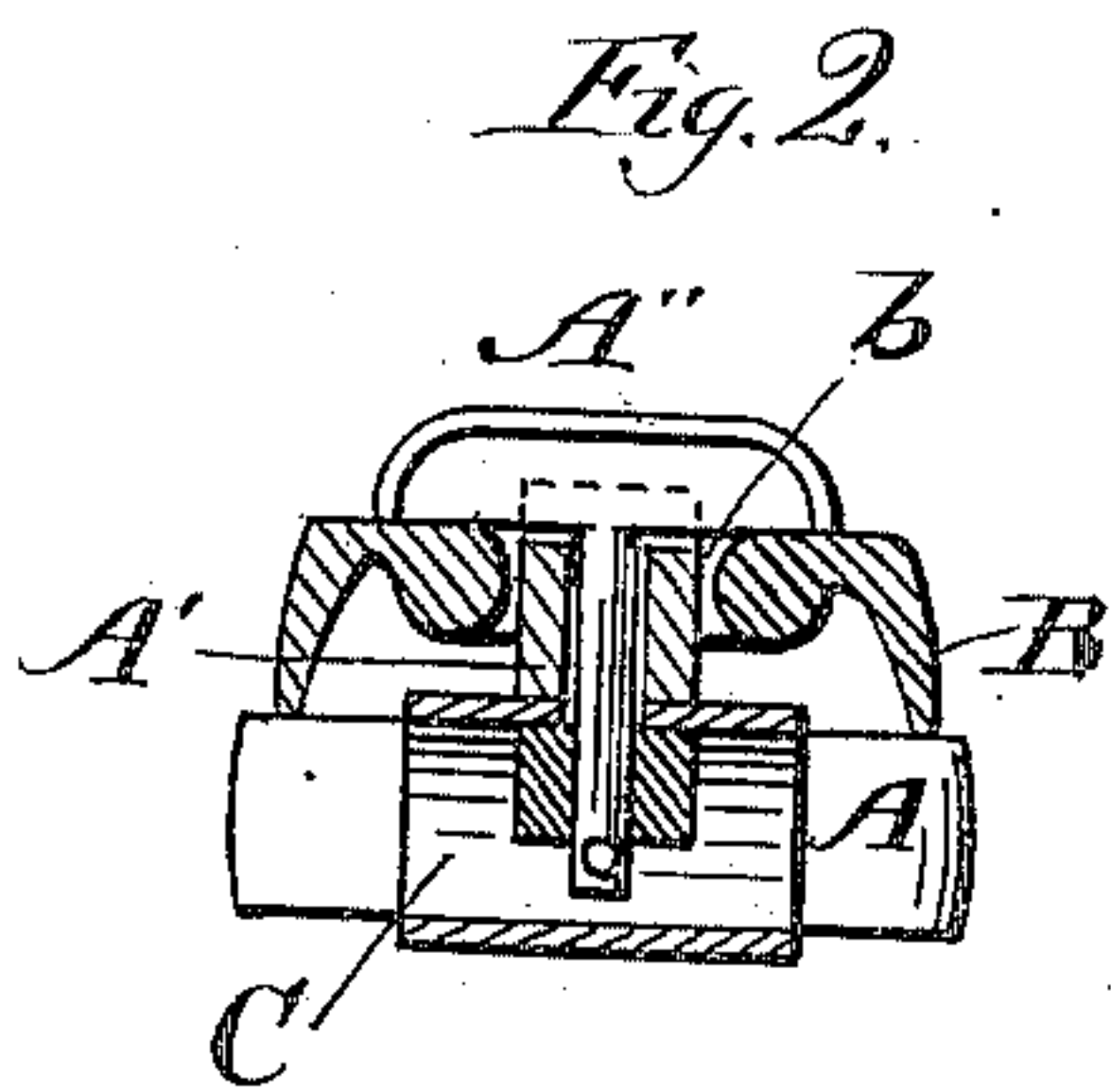
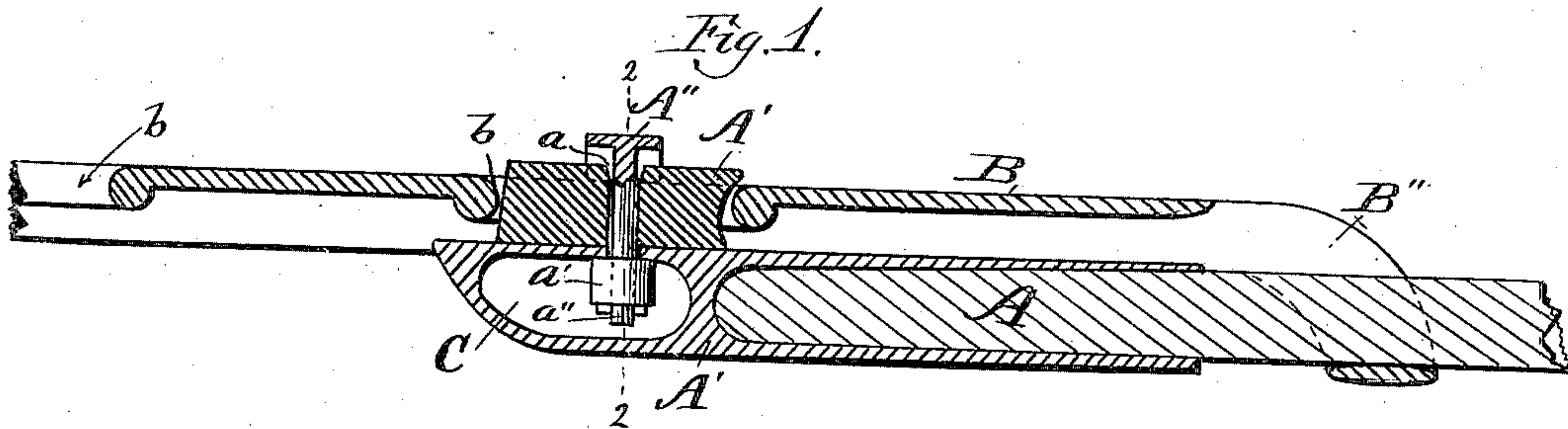


(No Model.)

L. A. BLOOD.
TUG FOR HARNESS.

No. 312,799.

Patented Feb. 24, 1885.



WITNESSES:

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Jno. H. Whipple

INVENTOR

Lydna A Blood
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ATTORNEYS

UNITED STATES PATENT OFFICE.

LYDIA A. BLOOD, OF CHICAGO, ILLINOIS.

TUG FOR HARNESS.

SPECIFICATION forming part of Letters Patent No. 312,799, dated February 24, 1885.

Application filed February 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, LYDIA A. BLOOD, of Chicago, State of Illinois, have invented certain new and useful Improvements in Tugs or
5 Traces for Harness, of which the following is a specification.

My invention relates to means for adjusting the length of the tug or trace; and it consists in the features and parts hereinafter described
10 and claimed.

The accompanying drawings illustrate the same.

Figure 1 is a longitudinal section of a portion of a tug or trace and hame-tug. Fig. 2 is
15 a cross-section on line 2 2, Fig. 1. Figs. 3 and 4 are edge views of detached parts. Fig. 5 is an edge view, and Fig. 6 a side view, of the hame-tug.

A designates the tug or trace. B is the
20 hame-tug, which is made of metal, and has a ring or hook, B', by which it is secured to the hame. It has an opening, B'', at the opposite end, for the tug or trace to pass through, or a bridge for it to pass under, and slots b, placed
25 at intervals along, for securing the tug to the hame-tug and adjusting the length. The tug is provided with a hook, A', at the ends, adapted to pass through and be hooked into the slots b of the hame-tug. To prevent the
30 hook from being displaced or thrown out of the slot by accident, it is provided with a pivoted button, A'', which, when turned in line with the hook, will pass through the slot, and may then be turned across the slot, so that the
35 ends will rest on the plate, as seen in Fig. 2, and prevent the hook from being withdrawn. To prevent the button from being turned when not designed to be, a notch or depression, a, is made in the hook, and a rubber or other
40 spring, a', on the opposite end of the pin a'', which secures the button to the hook, draws the lower edge of the button down into the

depression which holds it in its position across the slot. In unhooking it the button is raised
out of the depression by taking hold of the
45 upper edge with the fingers, and turned into line with the hook or slot, in which position it will pass through with the hook. The cock-eye of the tug, or the ring by which it is attached to the whiffletree-hook, may be extended
50 in the form of plate B and be provided with slots b; and by providing the tug or trace with the swivel-buttoned hook A' at the lower end the same may be lengthened or shortened at this end as well as at the hame-tug end. 55

The hook A' is best made of the form shown in the drawings, having the chamber or opening C for the spring of the swivel-button, so that the end of the pin and the spring are protected, and a smooth finish is given to the
60 hook. The recess C is open on one side, so as to enable the pin a'', which carries the button, to be passed through the opening in the hook and through the spring a', which is secured by a smaller pin passing through pin a'' out- 65 side of the spring, as shown in Fig. 1.

What I claim is—

1. A harness tug or trace having a hook, A', provided with a swivel-button, A'', and notch or depression a, and spring a', in combination with the hame-tug provided with slots b, as and for the purpose specified. 70

2. A harness tug or trace having a hook, A', provided with a swivel-button, A'', and notch or depression a, and spring a', as and 75 for the purpose specified.

3. The harness-tug provided with a hook, A', having a depression, a, and swivel-button A'', with spring a' within a chamber, as C, substantially as and for the purpose specified. 80

LYDIA A. BLOOD.

Witnesses:

JNO. H. WHIPPLE,
WILLIAM GAULT.