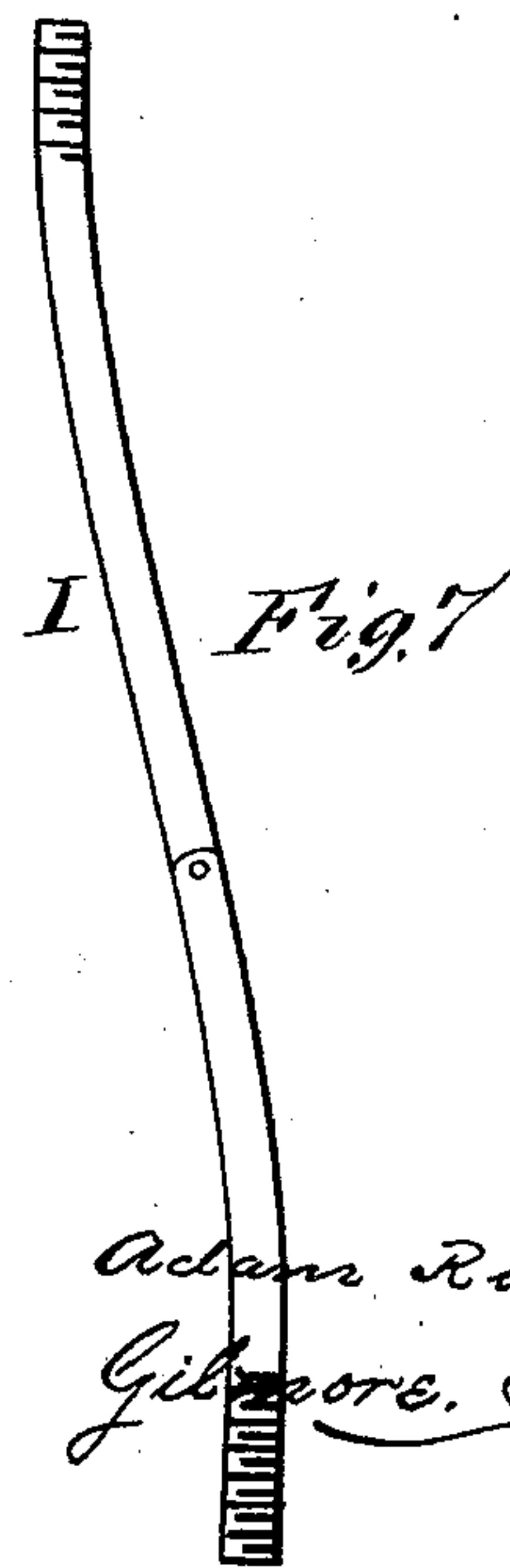
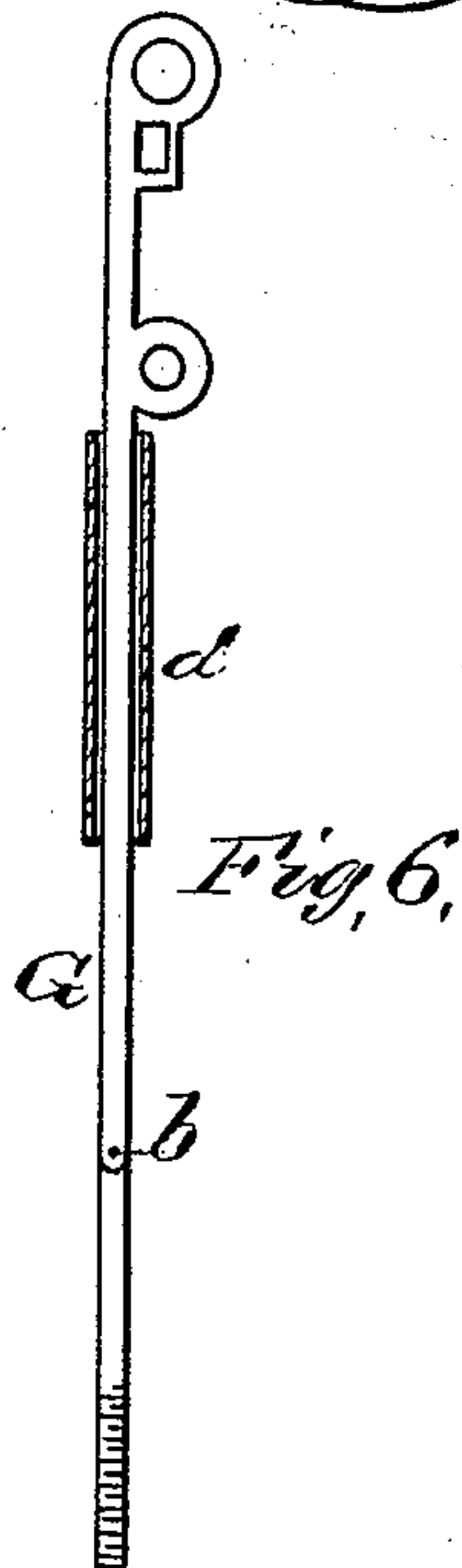
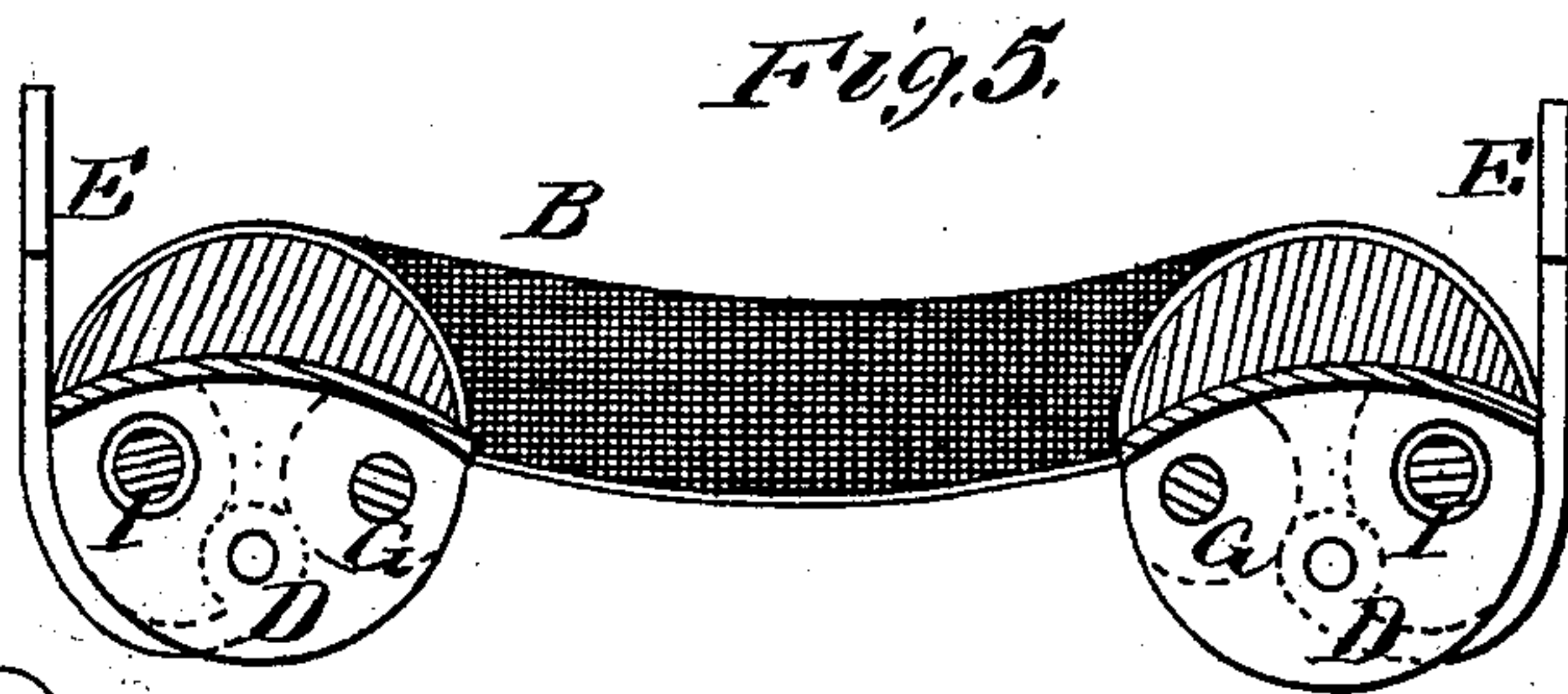
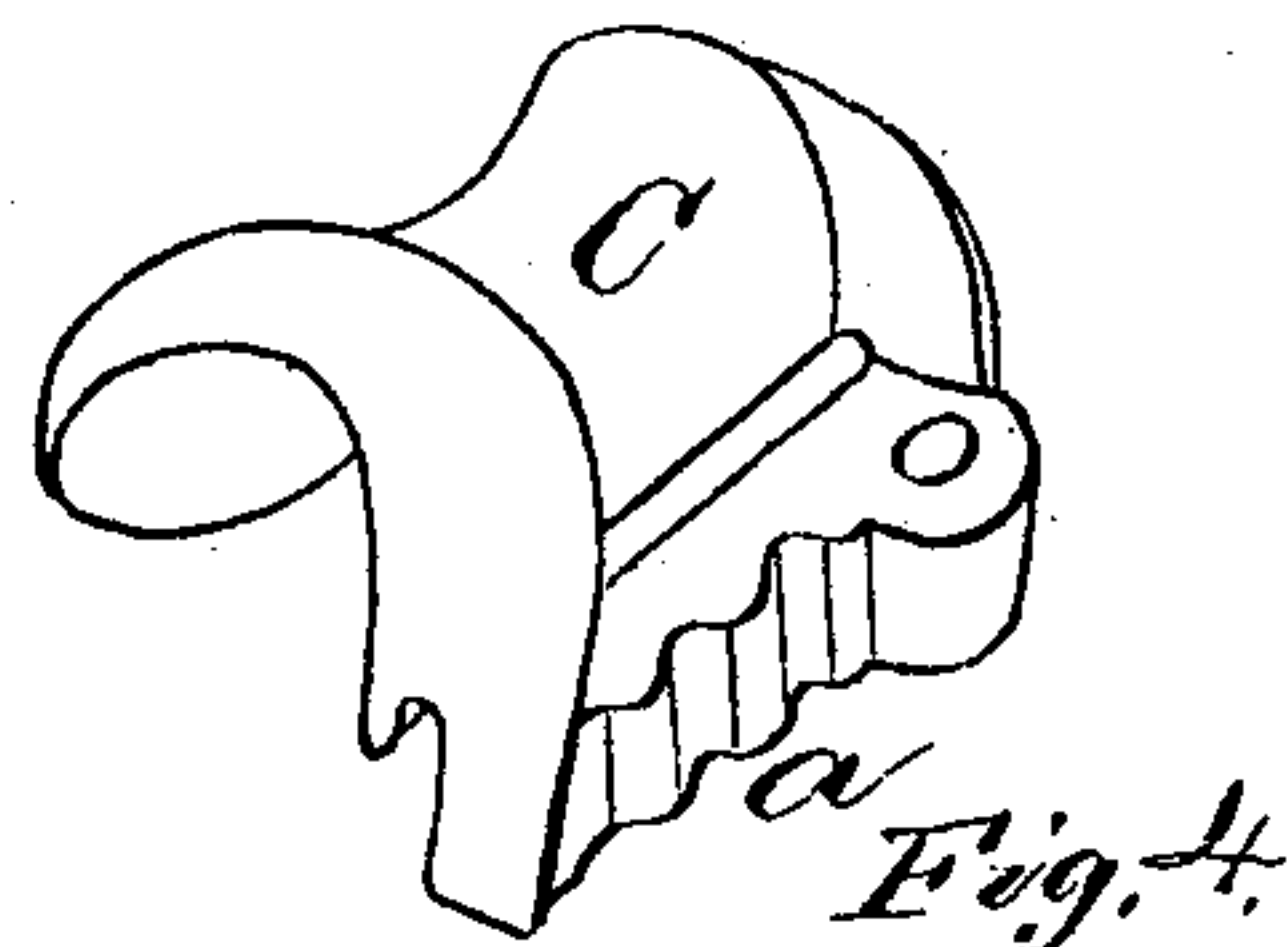
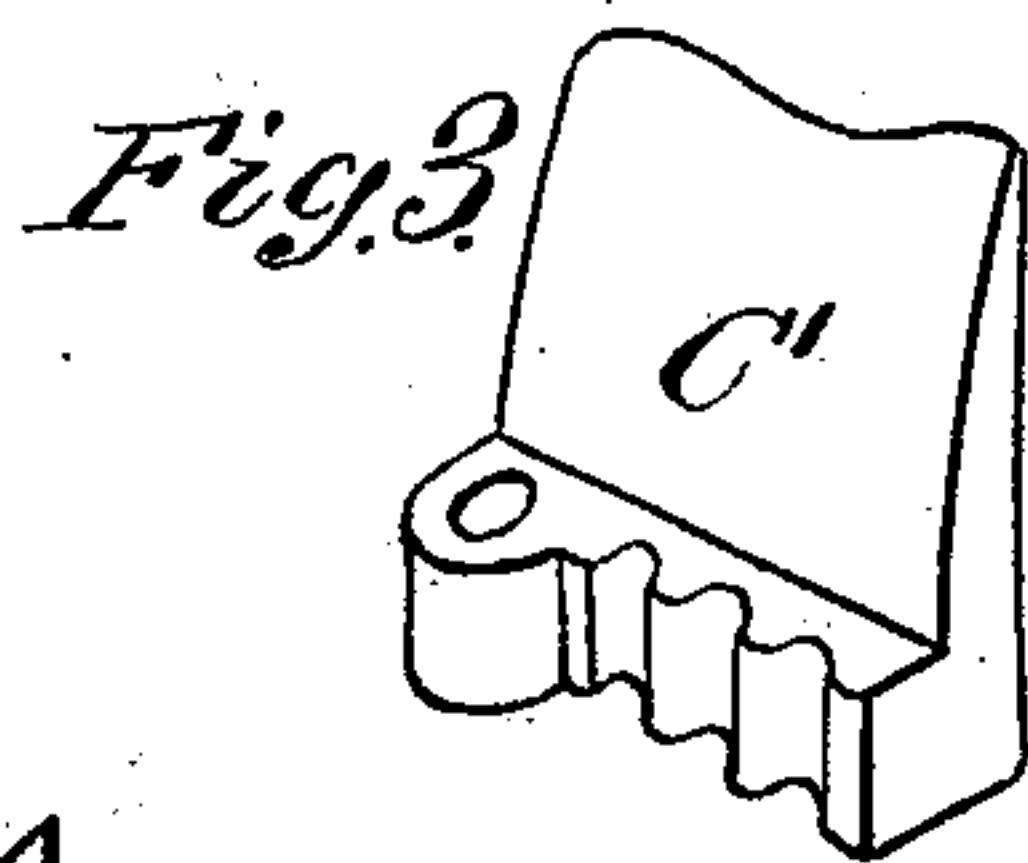
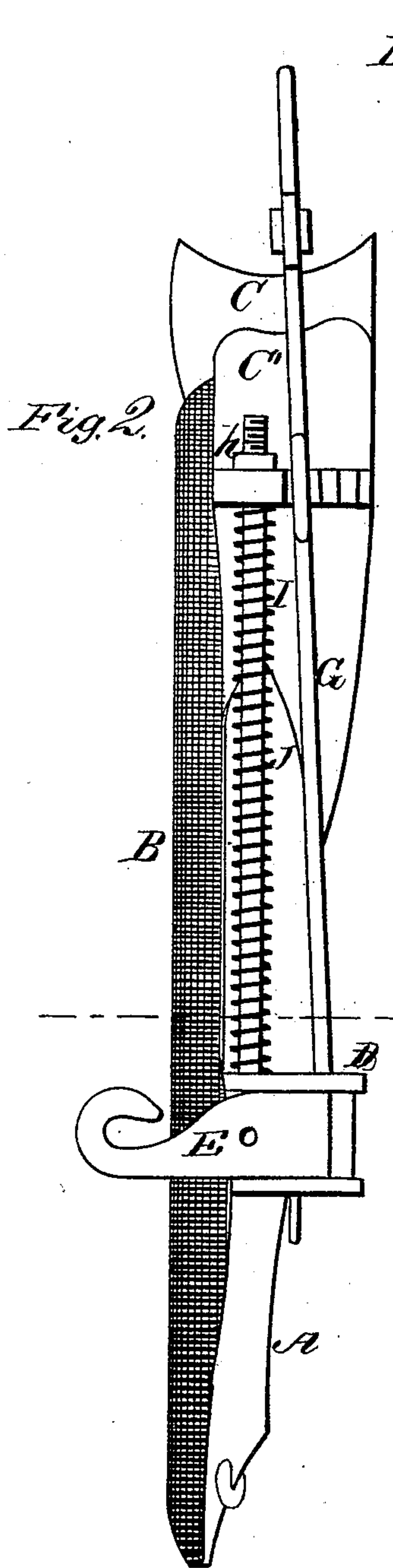




A. RUTHERFORD.  
HORSE-COLLARS.

No. 177,011.

Patented May 2, 1376.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

ADAM RUTHERFORD, OF WALLA WALLA, WASHINGTON TERRITORY.

## IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. 177,011, dated May 2, 1876; application filed March 4, 1876.

*To all whom it may concern:*

Be it known that I, ADAM RUTHERFORD, of Walla Walla, in the county of Walla Walla and Territory of Washington, have invented a new and valuable Improvement in Horse-Collars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my horse-collar, and Fig. 2 is a side view of the same. Figs. 3, 4, 5, 6, and 7 are detail views thereof.

The nature of my invention consists in the construction and arrangement of a horse-collar, having for its object to dispense with the use of hames, as will be hereinafter more fully set forth.

In the annexed drawings, A represents the body of the collar, made of iron, steel, or other suitable metal, and constructed to form the lower end or breast part of the collar, and to extend upward a suitable distance on both sides. B B are the pads, fastened to the body A in any suitable manner, and extending above the same on both sides. C is the neck-piece, made of metal in suitable form, having on one side a slot for the passage of the upper end of the pad B on that side, and on the outside of the pad is a corrugated cross-bar, *a*, as shown. The other side of the neck-piece C has a loose or separate lip, C', with a corrugated flange on its lower end, which allows of the adjustment of the neck-piece.

On each side of the body A is formed a box, D, in which the draft-hook E is pivoted for the attachment of the trace, which hook answers the purpose of the ordinary hame-tug.

In the front part of each box D is fastened a rod, G, which extends upward, and rests in either of the corrugations at the lower edge of the neck-piece, and the upper ends of the two rods are connected by a strap, H, which thus fastens the collar together. One of the rods G' is jointed, as shown at *b* in Fig. 6, and a sleeve, *d*, is placed around this rod over the joint to keep the same rigid while in use. This sleeve is to be raised and the strap H loosened, when said rod can be turned at its

joint, and the collar opened to take it off or put it on. The two rods are provided with loops *e* for the passage of the reins, and these rods take the place of the ordinary hames.

The box D' is further provided with jointed rod I', which is curved, as shown in Fig. 1, and extends up to the flanges or cross-bars *a* at the lower ends of the neck-piece and lip, where it is fastened and adjusted by means of nuts *h*. The rods I are surrounded by spiral springs J, which hold up the neck-piece, and, at the same time, allow of its being adjusted up and down, as required.

This collar can thus be lengthened or shortened by operating the adjusting-rods. It is durable, and dispenses with the use of hames. It is easily put on and removed, and not liable to be broken or otherwise get out of order.

By laterally adjusting the rods I in the corrugations in the cross-bars *a*, the collar can be adapted to suit the configuration of the draft-animal to which it may be applied, so that the collar can be employed on animals of different sizes.

What I claim as new, and desire to secure by Letters Patent, is—

1. A horse-collar composed of the metallic body A, pads B, and neck-piece C, with lip C', substantially as and for the purpose set forth.

2. The neck-piece C, having slot and corrugated bar or flange *a* at one end, and lip C', with corrugated flange, at the other end, substantially as and for the purposes set forth.

3. The combination of the body A with boxes D, the pads B, neck-piece C, with lip C', and the rods G G', with connecting-strap H, all as and for the purpose set forth.

4. The jointed rod G', with sleeve *d*, in combination with the body and neck-piece, as and for the purpose set forth.

5. The jointed adjusting-rods I, with spiral-springs J and nuts *h*, in combination with the body and neck-piece, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ADAM RUTHERFORD.

Witnesses:

JAMES D. MIX,  
O. P. LACY.