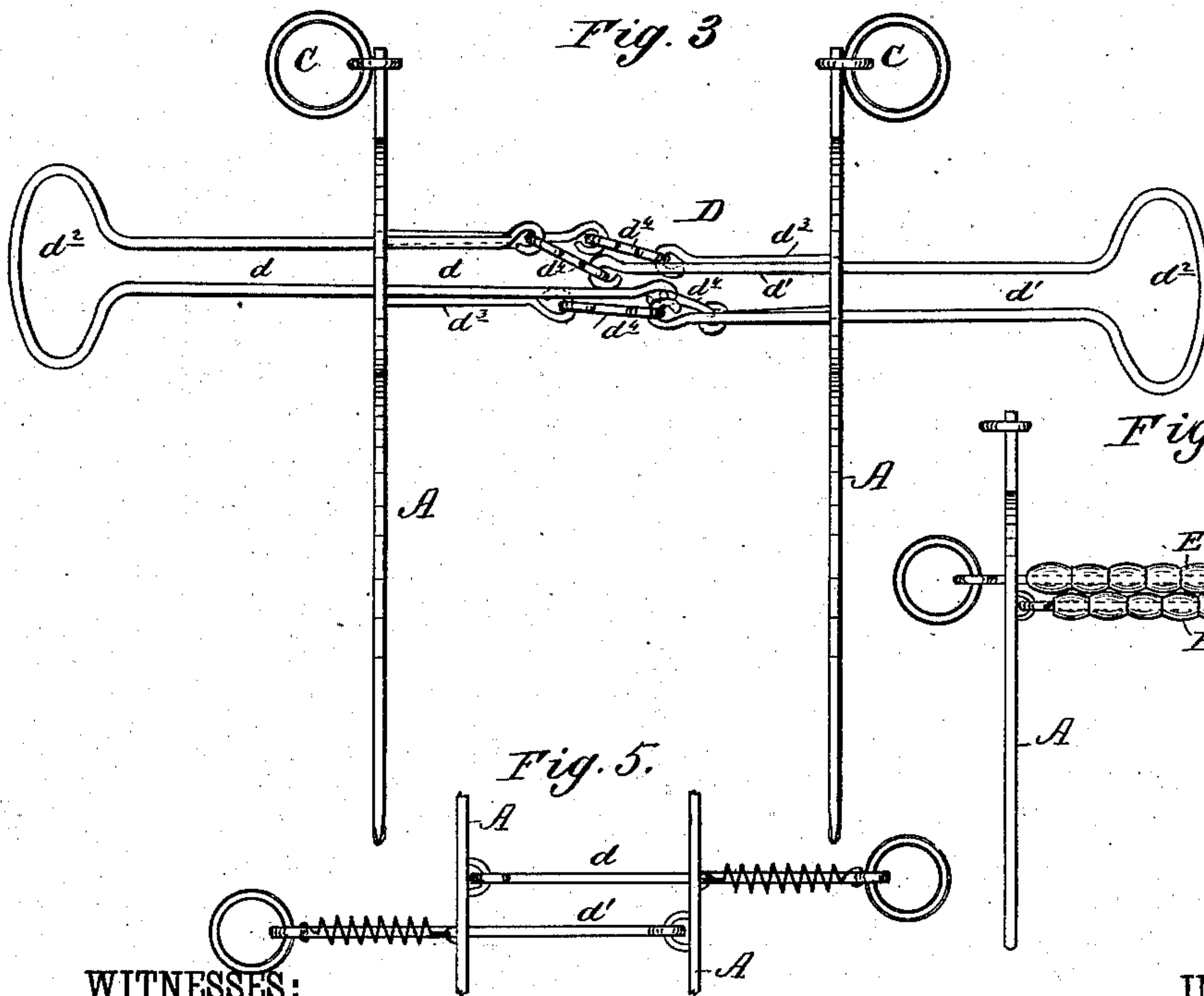
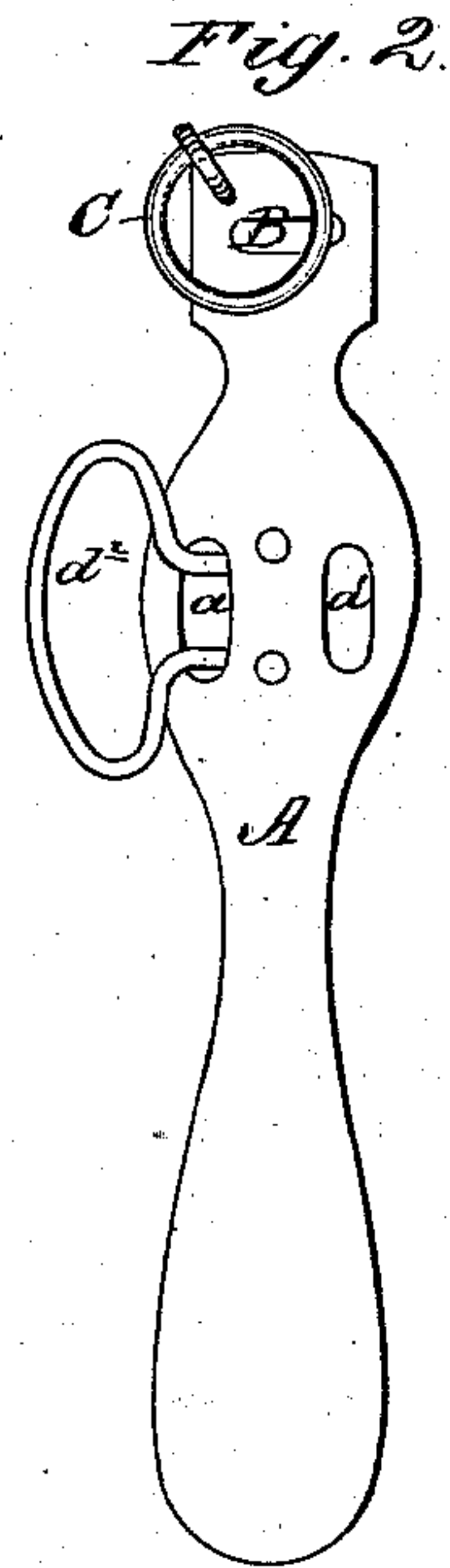
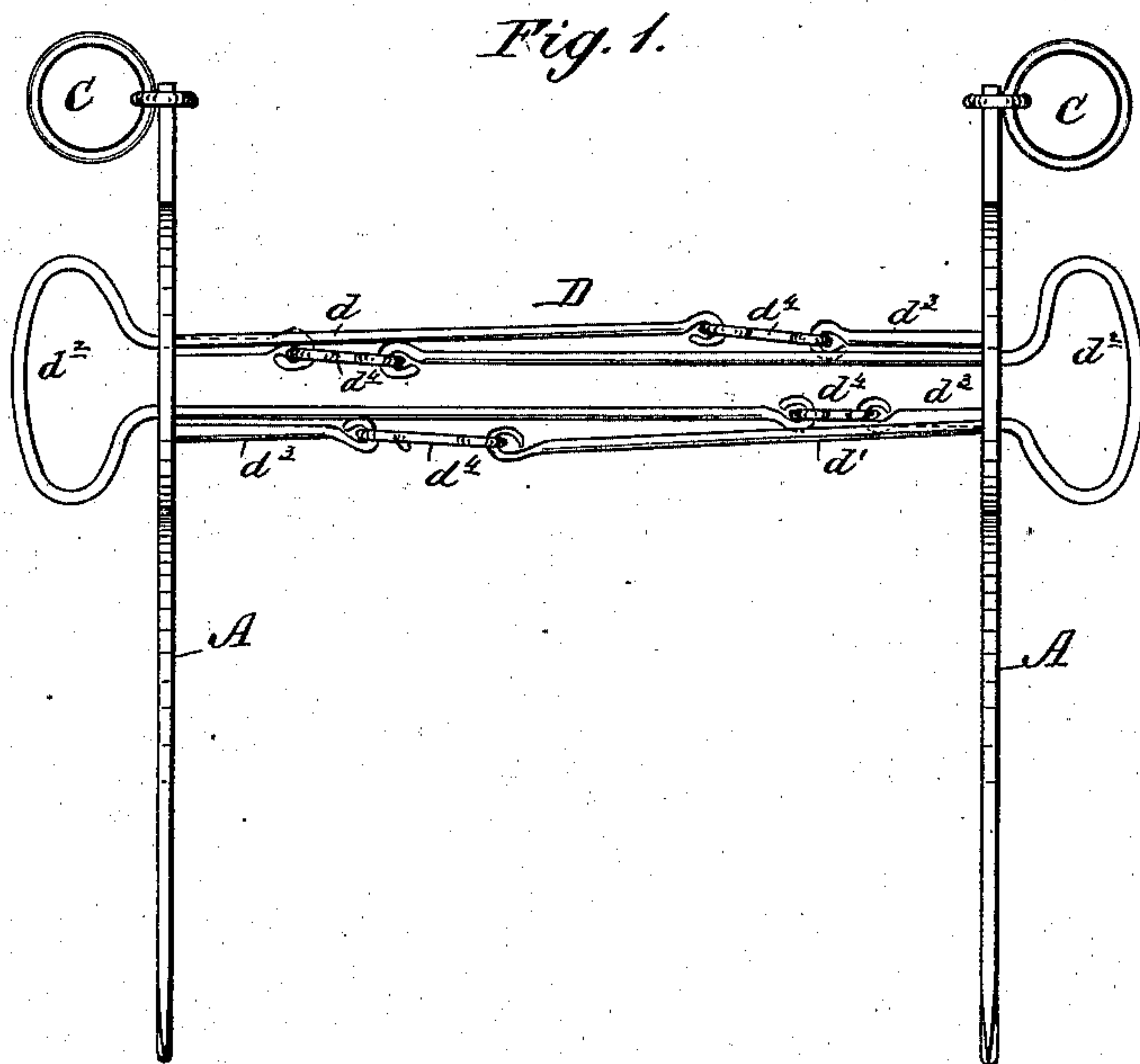


(No Model.)

J. F. SMITH.
Bridle Bit.

No. 239,567.

Patented March 29, 1881.



WITNESSES:

W. W. Hollingsworth
John Chamon

INVENTOR:

Jno. F. Smith
BY *[Signature]*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN F. SMITH, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
JOHN S. CARTER, OF SAME PLACE.

BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 239,567, dated March 29, 1881.

Application filed October 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. SMITH, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and Improved Bridle-Bit; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an improved bit in which cheek-plates are provided with suitable means for attaching them to the check-rein and cheek-straps of a bridle, the said cheek-plates being connected by elastic metallic bars, secured to each of the plates at one of their ends, and pass loosely through the other plate, and are provided with loops or other suitable means at their other ends for attaching them to the ends of the reins, whereby the cheek-plates may be drawn together to clamp and compress the jaws of the animal without cutting, pinching, or otherwise injuring the mouth, as will hereinafter more fully appear.

In the accompanying drawings, Figure 1 is an elevation of bit; Fig. 2, end view; Fig. 3, elevation of bit contracted; Figs. 4 and 5, modifications.

The cheek-pieces A may be of any desired form, and provided with eyes B, by which the ends of the cheek-straps of the bridle may be attached, and rings C, to which the end of the check-reins may be connected.

The bit or mouth-piece D is formed of wires $d d'$, made of steel or other strong elastic and durable material, secured at their ends to the inner side of one cheek-plate, and passing freely through openings $a a'$ in the outer cheek-plate from opposite sides, so that the end of wire or rod d is permanently secured to one plate and the end of the rod d' is permanently secured to the other plate. The outer ends of the rods are looped at $d^2 d^2$, or provided with other suitable means by which they may be attached to the ends of the reins, whereby the plates may be drawn together to compress the outer sides of the animal's jaws, without injury to the mouth, by simply pulling upon the reins, as shown in Fig. 3.

Fig. 1 shows the wires $d d'$ made in sections linked together. Two short sections, $d^3 d^3$, are secured to the inner sides of each cheek-plate,

and are connected by links d^4 with the ends of rods $d d'$, the said rods $d d'$ being bent to form the loop d^2 , and also have each of their ends held parallel to each other, and arranged to pass through the same openings $a a'$ in the cheek-plate. In this form of construction the links may be cast of solid malleable iron, so that no rough or broken ends will protrude to cut or injure the animal's mouth, and the connecting or looped ends of the wires or rods $d d'$ may be soldered and filled in, so as to leave no projecting burrs, edges, or ends.

The rods $d d'$ (shown in Fig. 1) may be enveloped between the cheek-plates by rubber thimbles E, as shown in Fig. 4, which will be compressed when the plates are drawn together, and will expand when the pressure is released, to automatically force the cheek-plates apart and relieve the horse's jaws from pressure. The said rubber thimbles are made elliptical, so that they may be considerably compressed with but little force, and will still have sufficient elasticity to restore the cheek-plates to their normal positions. The same object can be accomplished by other means, as shown in Fig. 5, wherein the bars $d d'$ are indented at their outer ends, to provide means for attaching one end of a spiral spring securely thereto that envelops the bit-rod, and is secured at its other end to the outer side of the cheek-plate, so that when the plates are drawn together the springs will be held under tension, and when the bit is released the tension of the springs will be exerted to force the cheek-plates apart and expand the bit.

The advantages of the above bit will be readily understood, as it enables the driver to punish the horse without cutting or injuring his mouth, which is unavoidable in most of the snaffle and curb bits now in use.

What I claim as new is—

1. In a bridle-bit, the mouth-piece D, consisting of the looped rods $d d'$, arranged to pass through the openings $a a'$ in the cheek-plates, and connected by the links $d^4 d^4$ to the short sections $d^3 d^3$, which are secured to the innersides of the cheek-plates, substantially as and for the purpose described.

2. In a bridle-bit, the cheek-plates A, hav-

ing the attachments d^3 d^3 , in combination with the mouth-piece D, substantially as and for the purpose described.

3. In a bridle-bit, the combination of the
5 cheek-plates, the bit-rods, and springs interposed between the cheek-plates and a fixed portion of the bit-rod, to expand the bit auto-

matically after it has been compressed, substantially as described.

JOHN FRANKLIN SMITH.

Witnesses:

WM. H. ROWE,
SOLON C. KEMON.