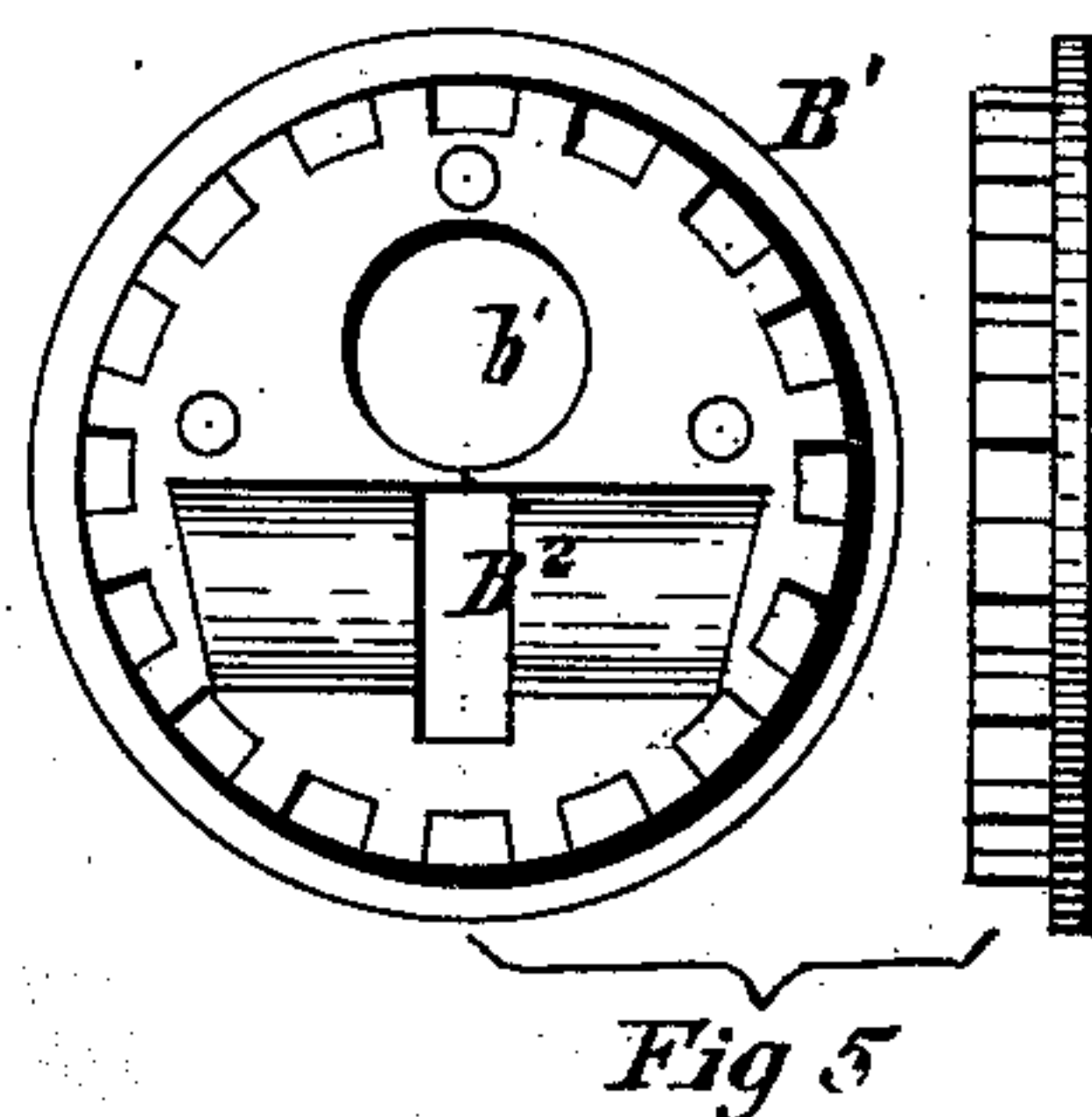
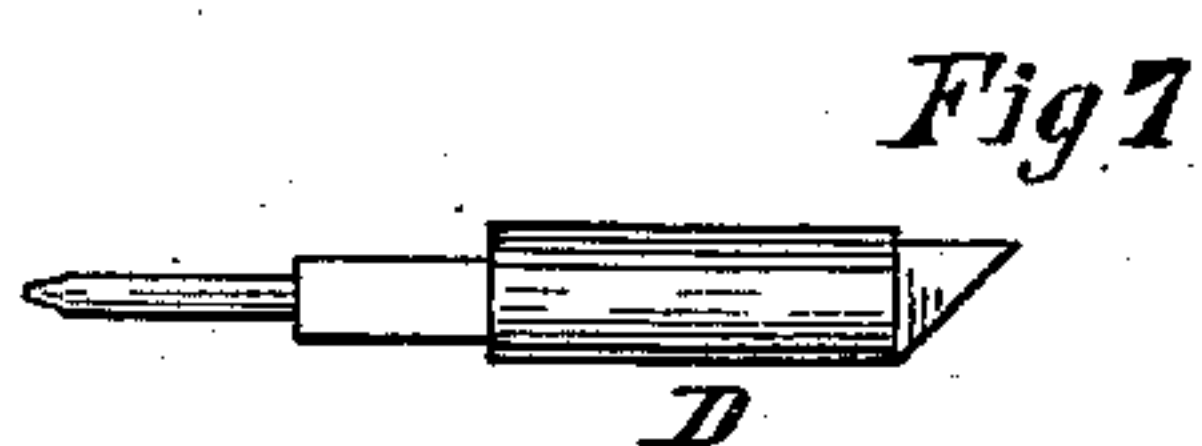
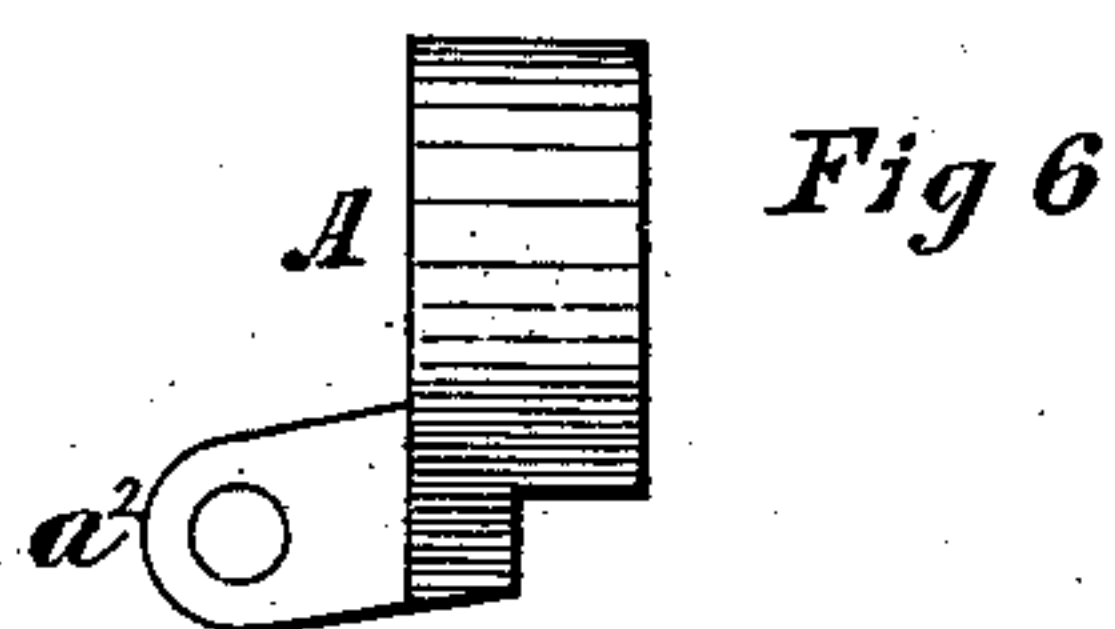
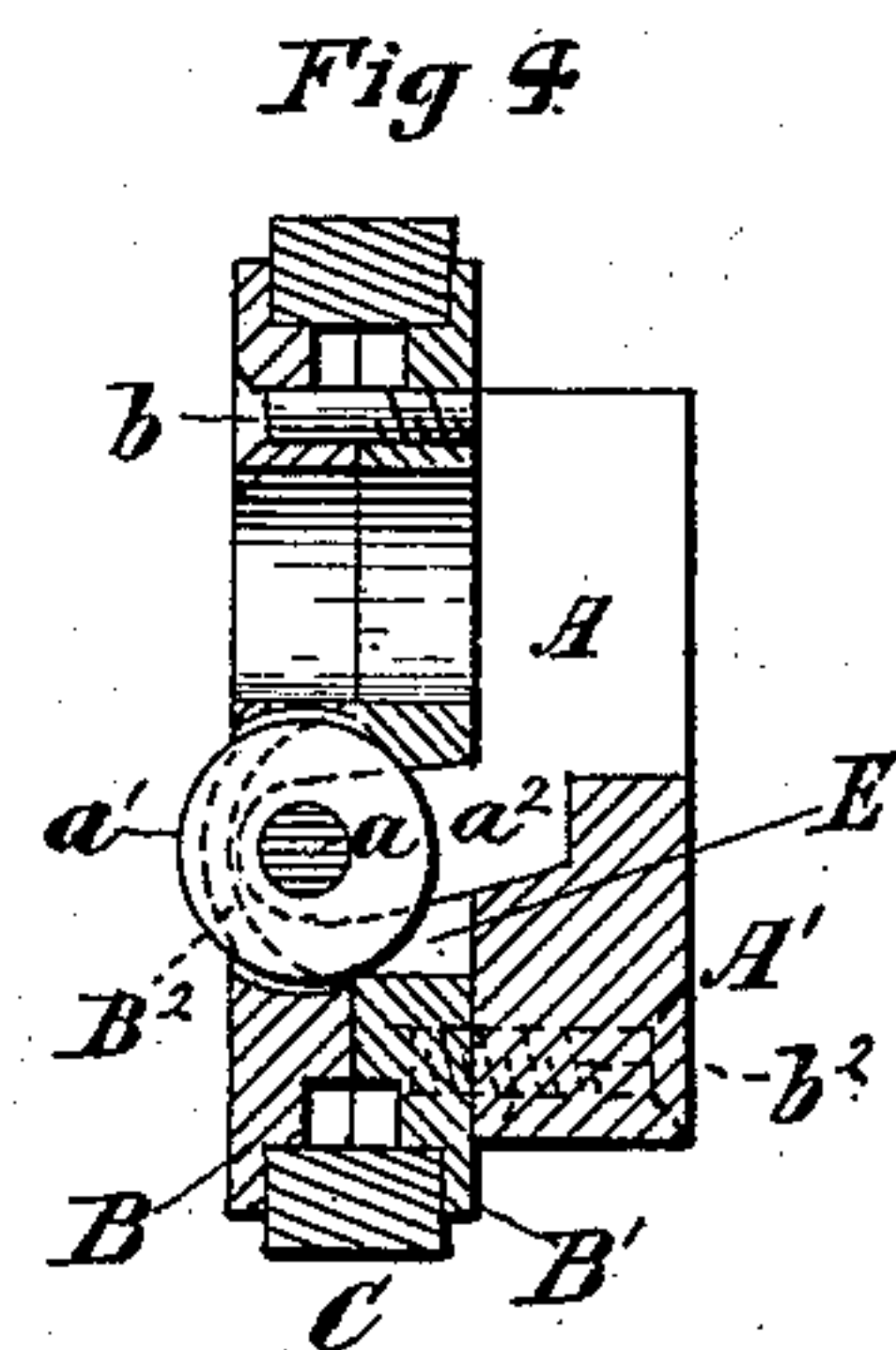
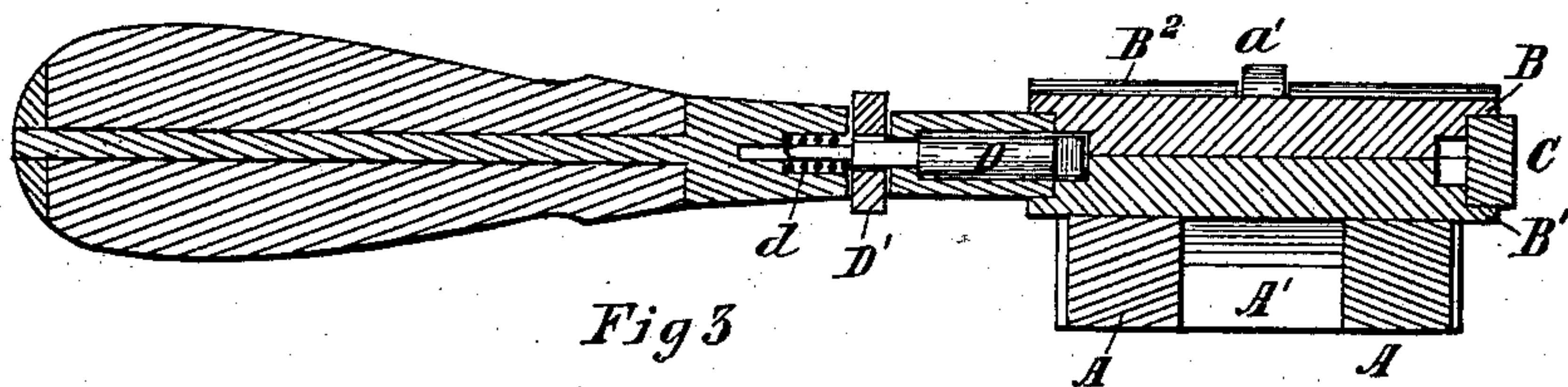
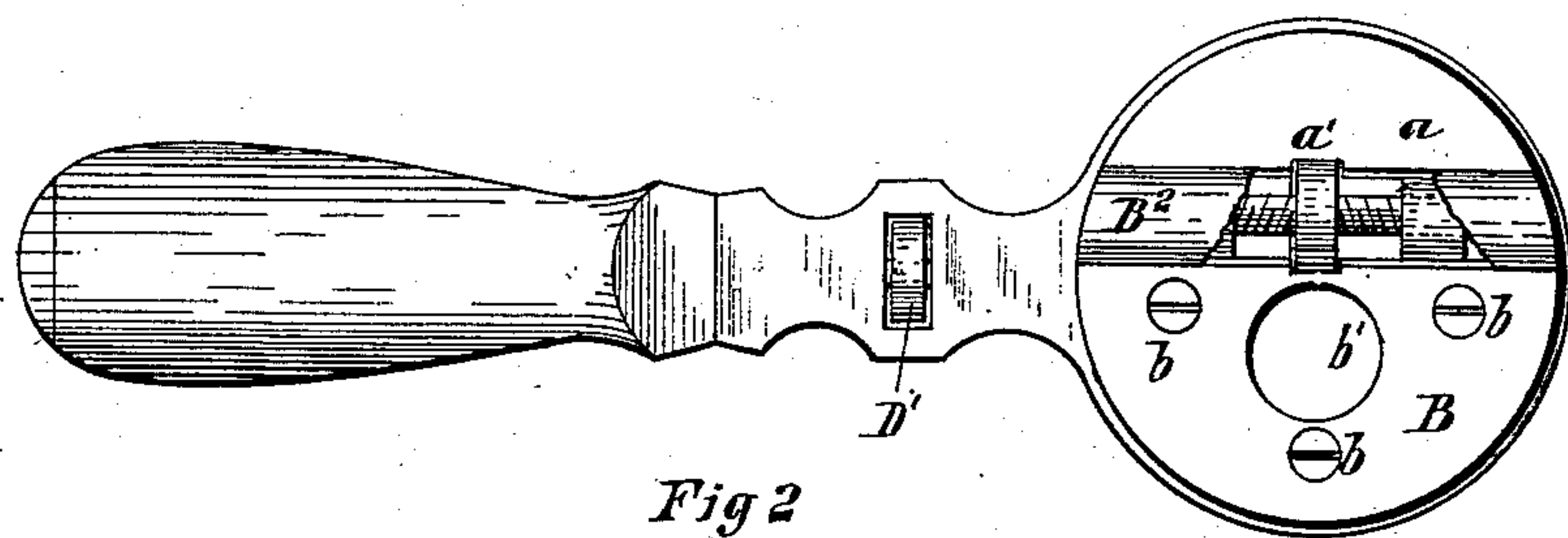
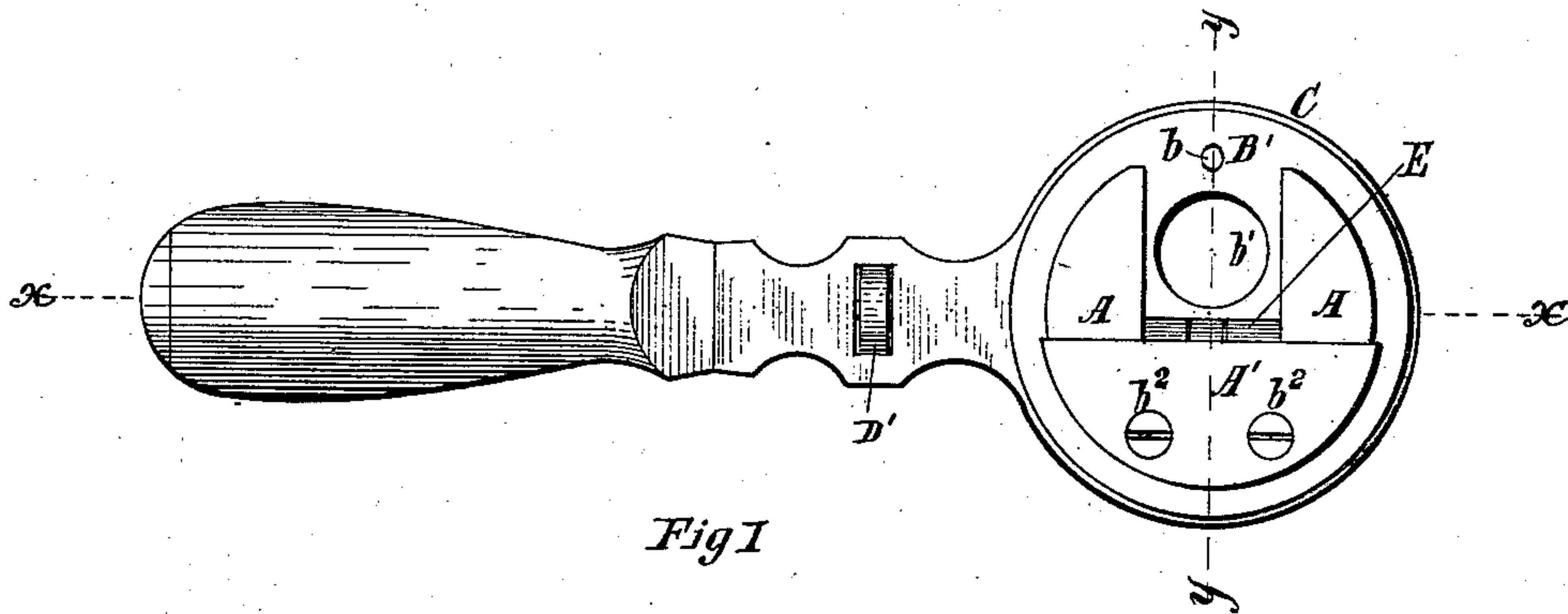


(No Model.)

W. F. MCGREGOR.
RATCHET MONKEY WRENCH.

No. 256,351.

Patented Apr. 11, 1882.



Witnesses

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WILLIAM F. MCGREGOR, OF CHICAGO, ILLINOIS, ASSIGNOR TO JOHN C. MCGREGOR, OF SAME PLACE.

RATCHET MONKEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 256,351, dated April 11, 1882.

Application filed August 10, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. MCGREGOR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ratchet Monkey-Wrenches, which are fully described in the following specification, reference being had to the accompanying drawings, in which—

10 Figure 1 represents a plan view of my improved monkey-wrench with the jaws wide open; Fig. 2, a similar view, showing the rear of the disks, and broken so as to show the right and left hand threaded screw which operates the jaws; Fig. 3, a section taken on the line *x x*, Fig. 1, showing the ratchet or locking device; Fig. 4, a transverse sectional view taken on the line *y y*, Fig. 1; Fig. 5, a detached detail view of one of the disks; Fig. 6, a detached detail view of one of the jaws, and Fig. 7 a detail view of the ratchet or locking device.

20 The object of my invention is to construct a ratchet monkey-wrench with adjustable jaws and a locking device to hold the jaws in any desired position, and to so construct the locking device that the motion of the wrench may be easily and readily reversed without removing it from its position.

30 My invention consists in the peculiar shape of the jaws and of the disks, into which the jaws are fitted to move in opposite directions at the same time by means of a screw with right and left hand threads at either end thereof.

35 It also consists in special devices and combinations of devices, all of which will be hereinafter more fully described, and definitely pointed out in the claims.

Similar letters of reference refer to similar parts in the drawings.

40 A A are the jaws, through the lugs of which the screw *a* passes, the latter having right and left threads thereon at either end, and which is made to adjust the jaws whenever desired by turning with the thumb or finger the thumb-wheel *a'*. This double-threaded screw and the thumb-wheel are made preferably of one piece of metal, but may be made of two pieces.

B B' are the ratchet-disks, each being notched

or recessed at regular intervals to permit the pawl D to enter and hold them in position 50 when the wrench is in use, as shown in Fig. 5 of the drawings.

C is the frame or holder, which is made to surround the disks, and thus serve also as a guide to keep them in place when the wrench 55 is in use.

On the outer surface of the disk B', of even thickness with the exposed portion of the jaws A A, is a plate or guide, A', fastened to the disk by means of screws or suitable rivets, *b*², 60 as shown in plan view, Fig. 1, and in section, Fig. 4, for the purpose of guiding the jaws and giving more strength to them when the wrench is in use. The jaws A A are each cast in one piece of metal with lugs *a*², through which 65 threaded holes are cut for the screw *a* to enter, which latter operates to move the jaws in the desired direction by turning the thumb-wheel *a'*, as seen at Fig. 2. The ratchet-disks B B' are also each cast in one piece of metal, with 70 projections or rims on their outer surfaces to fit against the encircling part of the frame C, and with depressions in their inner edges, into which the pawl or locking device D is sprung to hold them in place when a bolt or nut is being turned, 75 as shown in Fig. 5. These disks B B' are fastened together with screws or in any suitable manner, and are made with holes *b'* near the center of their circumferences, through which 80 to pass a bolt or rod.

On the inner face of the disk B a groove or seat is cut or cast to receive the lugs *a*² of the jaws A and the double-threaded screw *a*, with its thumb-wheel *a'*; and longitudinally across the outer face of the disk B is a ridge, B², which 85 latter is to permit a deeper groove or seat to receive the lugs of the jaws, all of which is shown in Fig. 2.

Across the face, and extending nearly to the depressions in the disk B', is cut or cast a slot, 90 E, for the lugs of the jaws to slide in, as shown in Fig. 5.

The frame or handle C is of metal, cast in one piece, and is hollow at its center to admit the pawl or locking device D, and around the rear 95 end of this ratchet is fitted a spiral spring, *d*,

to force it into the depressions in the disks, and thus firmly hold the jaws in position when the wrench is in use. The pawl D is made square at its center to fit into the thumb-wheel D', which latter has a square hole in the center of its circumference, and serves to turn the pawl D when it is desired to reverse the motion of the wrench, all of which is plainly shown in Fig. 3.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ratchet monkey-wrench, the combination of the jaws A, the double-threaded screw α , with the thumb-wheel α' , the disks B B', and the plate or guide A', constructed and arranged as herein described and shown.

2. The disks B B', with notches in their outer circumferences, (the disk B having ridge B², the disk B' having slot E,) the screw α α' , the jaws

A, and the guide A', as described and shown, 20 in combination with the frame C and pawl D, substantially as and for the purpose specified.

3. The frame C, hollow at its center, pawl D, thumb-wheel D', and spiral spring d , in combination with the disks B B', provided with 25 notches, jaws A, with double-threaded screw α , and guide A', substantially as and for the purpose specified.

4. A ratchet monkey-wrench having jaws A, a plate or guide, A', disks B B', frame C, pawl 30 D, with thumb-wheel D' and spiral spring d , double-threaded screw α , with thumb-wheel α' , all arranged and operating substantially as herein shown and described.

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Witnesses:

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