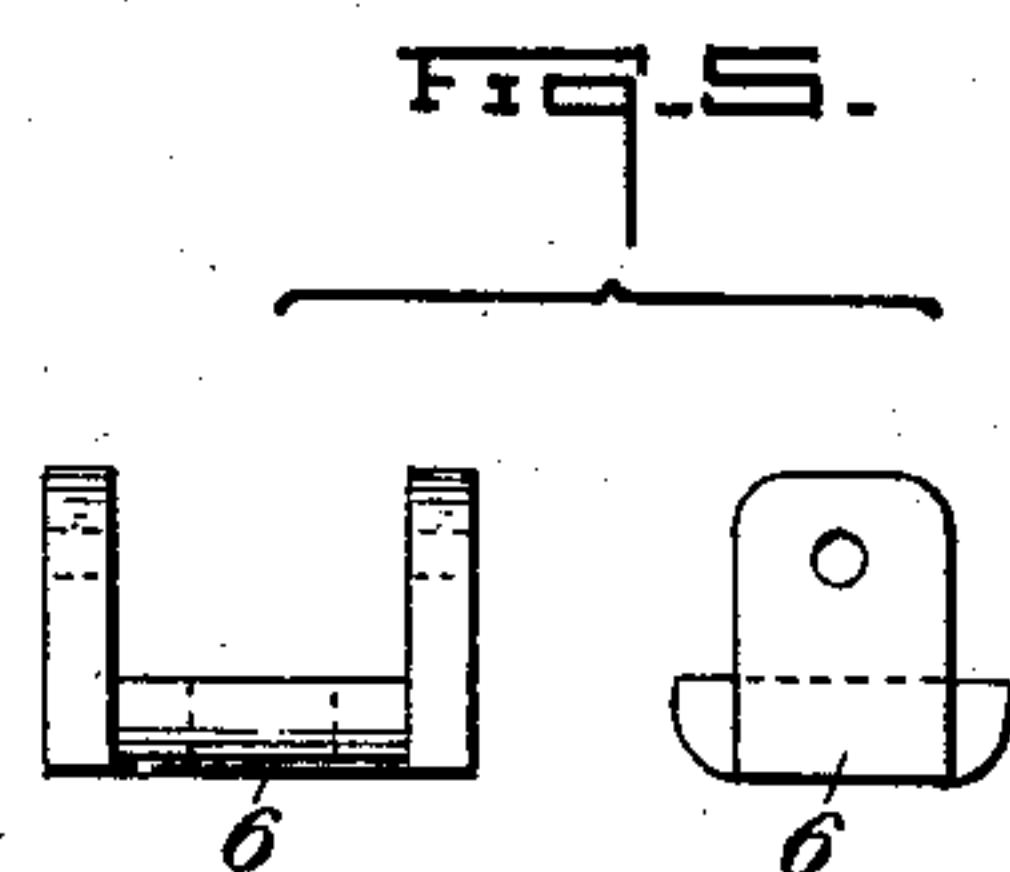
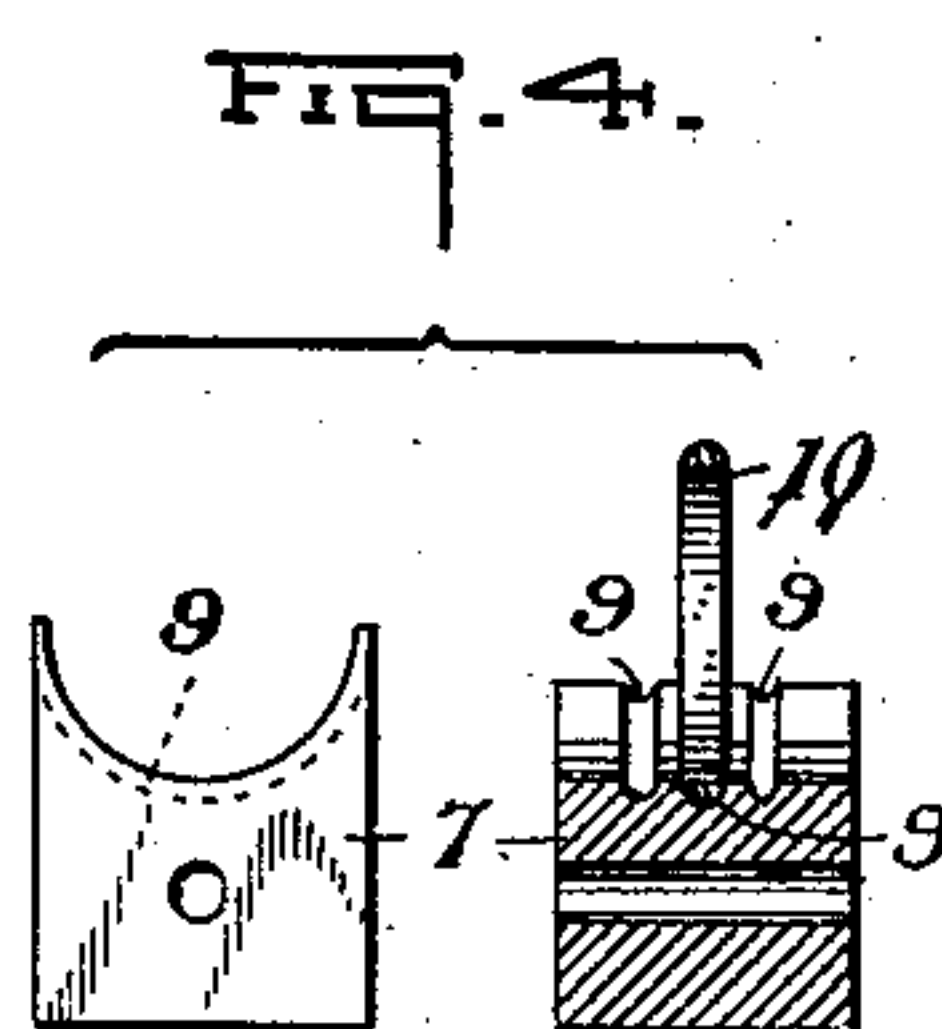
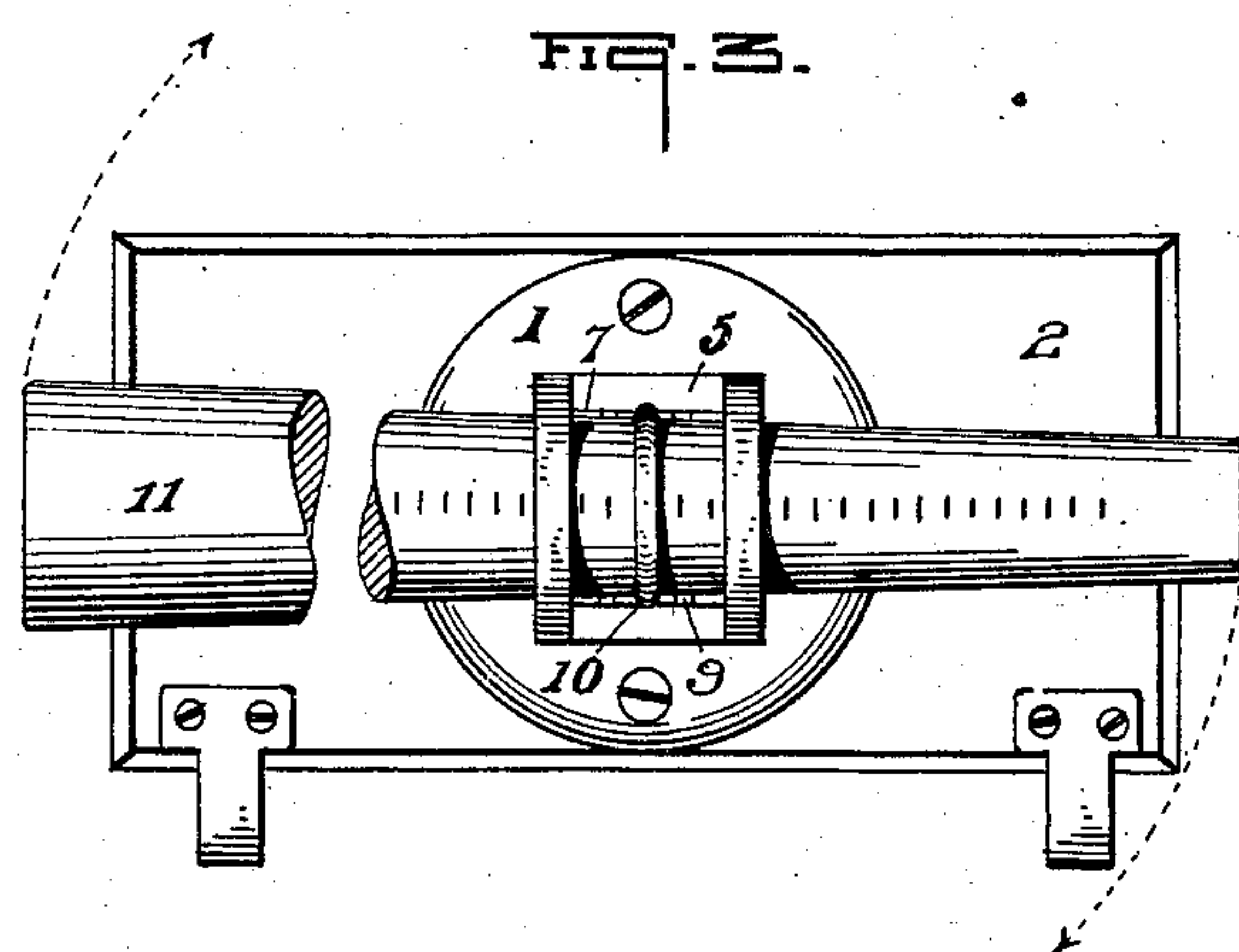
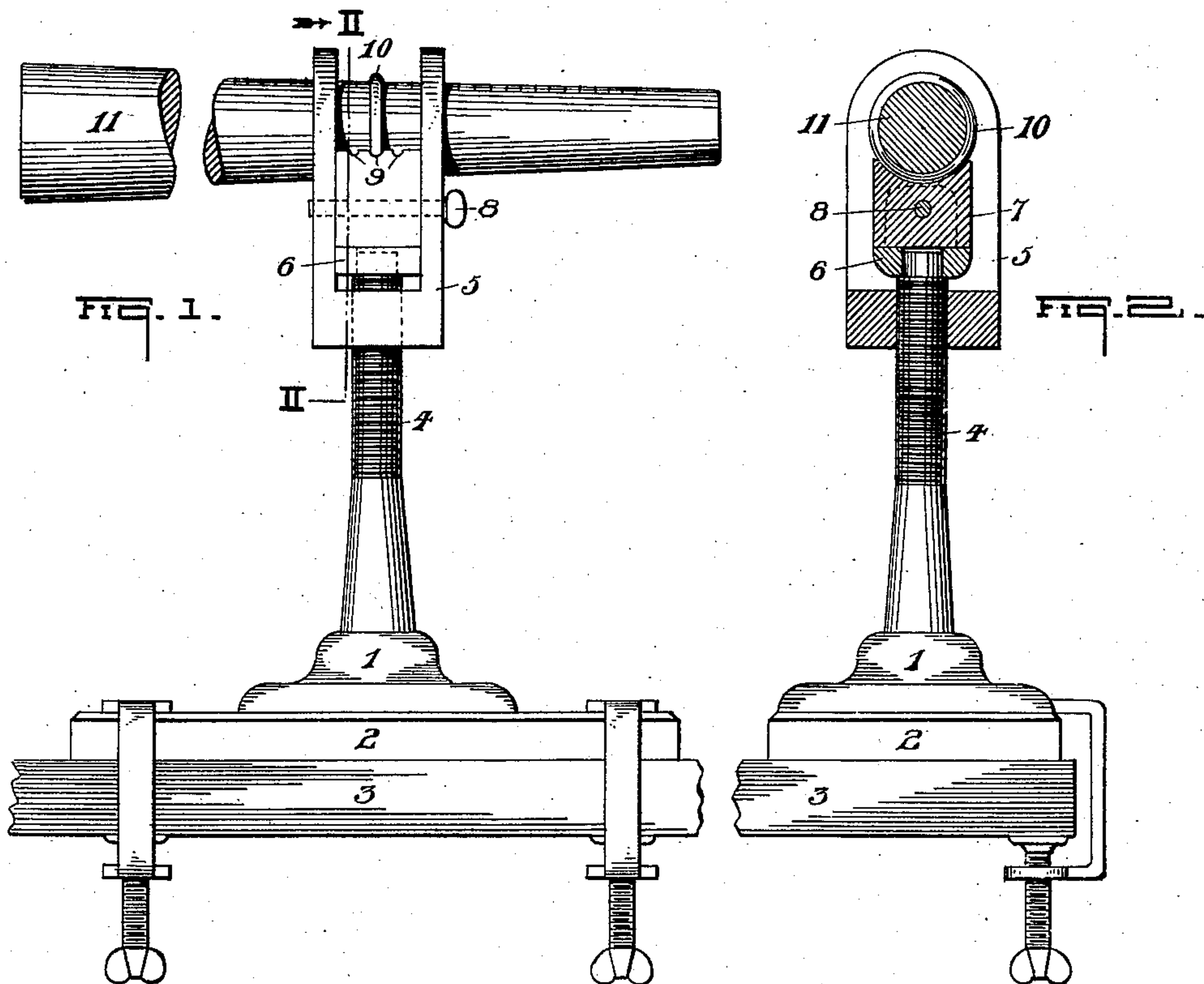


No. 859,847.

PATENTED JULY 9, 1907.

A. J. SHEFF.
RING EXPANDER.

APPLICATION FILED JUNE 8, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANDREW J. SHEFF, OF PITTSBURG, PENNSYLVANIA.

RING-EXPANDER.

No. 859,847.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed June 8, 1906. Serial No. 320,719.

To all whom it may concern:

Be it known that I, ANDREW J. SHEFF, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have
5 invented certain new and useful Improvements in Ring-Expanders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference be-
10 ing had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to a new and useful improvement in ring expanders, being especially adapted to
15 the sizing of finger rings.

My device affords a quick, efficient and inexpensive means for enlarging a finger ring the operation of which will be more fully described further on.

In the accompanying drawing forming a part of this
20 specification, I have shown several detailed views of my invention. Figure 1 being a side elevation. Fig. 2 a vertical sectional view. Fig. 3 a top plan view. Fig. 4 shows two views of the shaping die, used in my device, and Fig. 5 is a similar view of the pressure
25 block.

Throughout the several views the numeral 1 designates a suitable metal stand which is herewith shown as attached to a base 2, the latter being clamped to a table 3. In the center of the stand 1 is a threaded
30 stem 4 and mounted on this threaded portion is a bifurcated jaw 5. The two fingers forming this jaw 5 are slotted, the upper end of said slots being rounded for the purpose hereinafter described. Seated in the slotted portion of said jaw 5 is a bifurcated pressure
35 block 6 the under side of which is recessed to receive the end of the stem 4. Seated in this pressure block 6 is a shaping die 7 being secured to said block by means of a pin 8 which passes through said die and uprights of the block 6. The upper portion of this die
40 is hollowed out to conform to the contour of the ring and in this hollowed out portion are formed a number of grooves 9 to suit the different sized rings. Seated in one of the aforesaid grooves is a ring 10 and passing through this ring, and likewise through the rounded
45 portion of the slots formed in said jaw 5, is an ordinary scaled jewelers' mandrel 11.

In the operation of my device the stand 1 is firmly secured to a table by clamps or any other suitable means. The ring to be expanded is then placed in
50 one of the grooves 9 formed in the shaping die 7, the groove so selected being of the same size as the ring, and then the tapered mandrel is passed through said ring until said ring becomes firmly seated on the taper and the mandrel has a bearing against the rounded
55 portion of the slots formed in the jaw 5. In order to afford a level seat for this tapered mandrel, when in

the above described position, one of the aforesaid rounded slots is made slightly higher than the other. The next step in the operation consists in simply grasping hold of both ends of the mandrel and by using
60 the same as a lever, make a slight turn toward the operator; shown by arrow point in Fig. 3. This movement will cause the jaw 5 to turn on the stem 4 and by so doing force the pressure block and die upward against the ring; thus keeping said ring firmly seated in the
65 groove 9. Said ring can not get away from this position and when the mandrel is operated as aforesaid the result is that said ring, being the softer metal, will give sufficient to accomplish the result sought after. By turning the ring on the mandrel after each opera-
70 tion an even expansion throughout the ring will result and the pressure operation is continued until the ring has reached the desired size. By drawing out the securing pin 8 the die 7 may be removed and another one substituted, in this way provision can be made for
75 any sized ring. It is preferred that not more than three grooves be formed in each die in order that the ring may be retained in as near a centered position as possible.

Having thus fully shown and described my inven-
80 tion what I claim as new, and desire to secure by Letters Patent, is:

1. In a device of the character described, a stem, a bifurcated jaw mounted thereon and engaging parts be-
85 tween the said stem and jaw so constructed and arranged that the rotation of either the stem or the jaw with relation to the other results in longitudinal motion, a die within the jaw, the arms of the jaw being slotted to receive a mandrel guides carried by the die fitting within the slots of the jaw, said die having one of its faces
90 grooved, said die resting on the end of the stem, said jaw being provided with bearing portions for the mandrel.

2. In a device of the character described, a suitable stand having a threaded stem secured thereto, a bifurcated jaw threaded on said stem, slots formed in said jaw
95 having the upper portion thereof rounded, a bifurcated pressure block seated in said slots and resting on the top of the stem, a shaping die seated on the pressure block, the upper portion of which is hollowed out to conform to the contour of a ring, grooves formed in the hollowed-
100 out portion of said die, and a mandrel adapted to be passed through the ring for expanding the same.

3. In a device of the character described, a threaded stem, a bifurcated jaw threaded on said stem, the arms of said jaw being slotted to receive a mandrel and having
105 bearing portions for said mandrel, a shaping die seated between the arms of the jaw, and resting on an end of the stem, said die having one of its faces concaved and also having slots formed in said concaved surface to receive a ring, and guide means for retaining said die in position
110 during the rotation of said jaw on the stem.

In testimony whereof, I affix my signature, in presence of two witnesses.

ANDREW J. SHEFF.

Witnesses:

F. A. WEIGEL,
ALICE A. TRILL.