

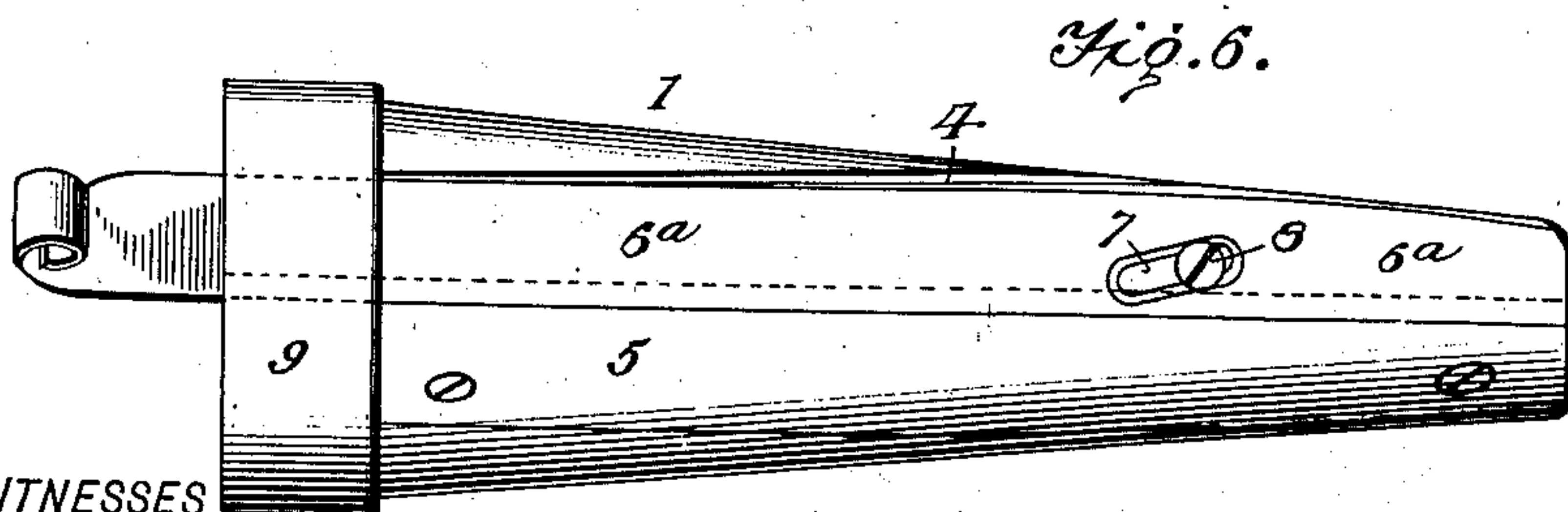
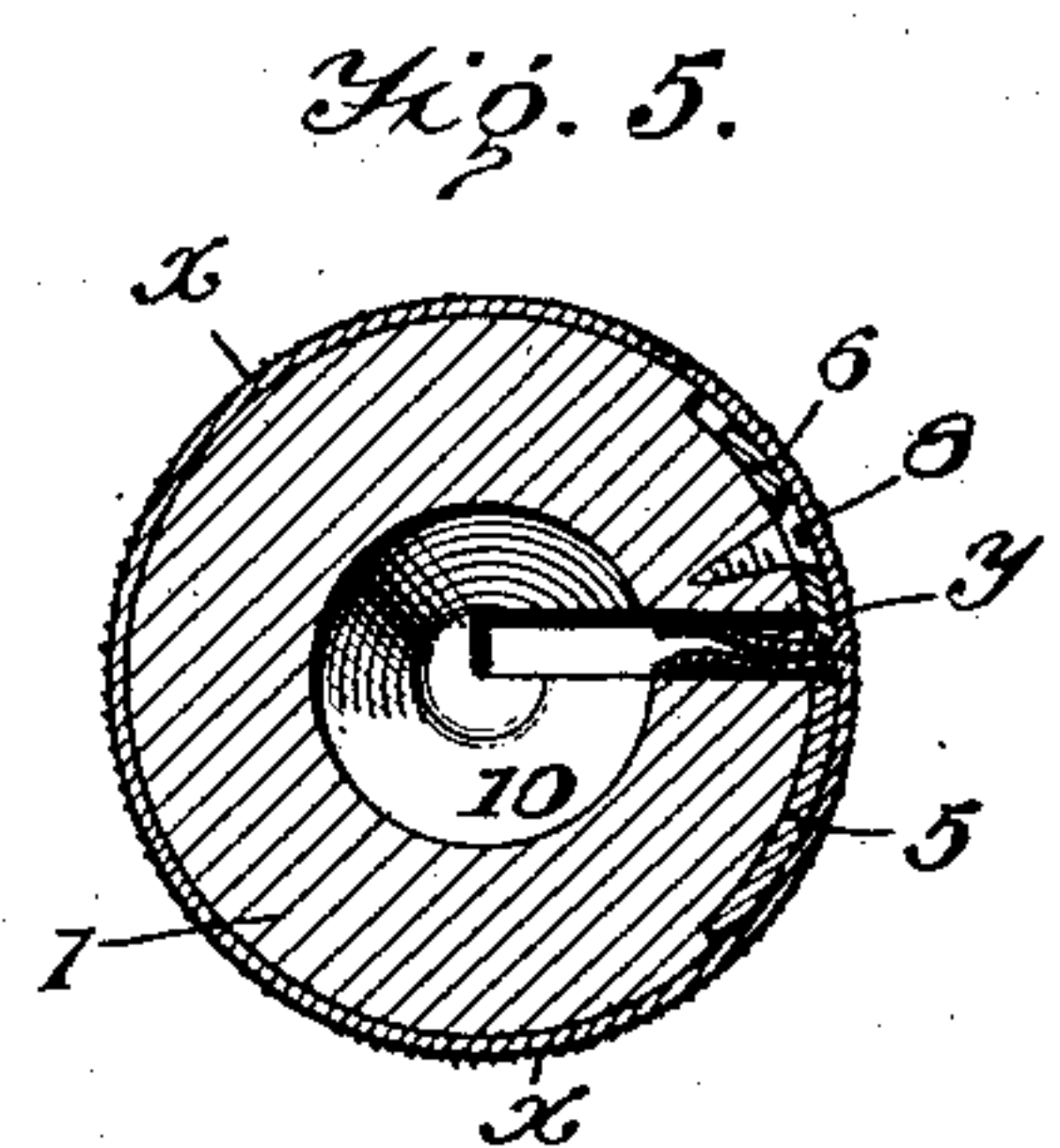
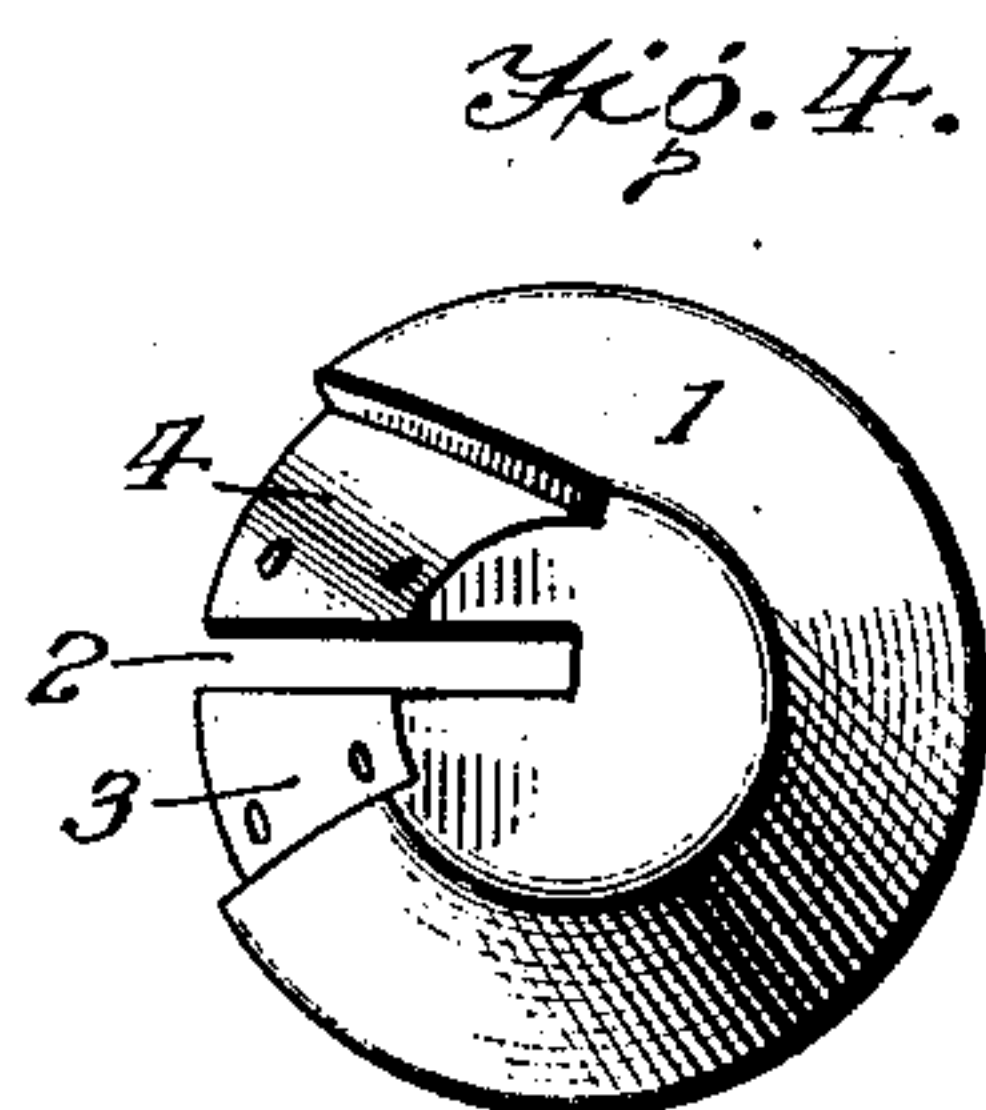
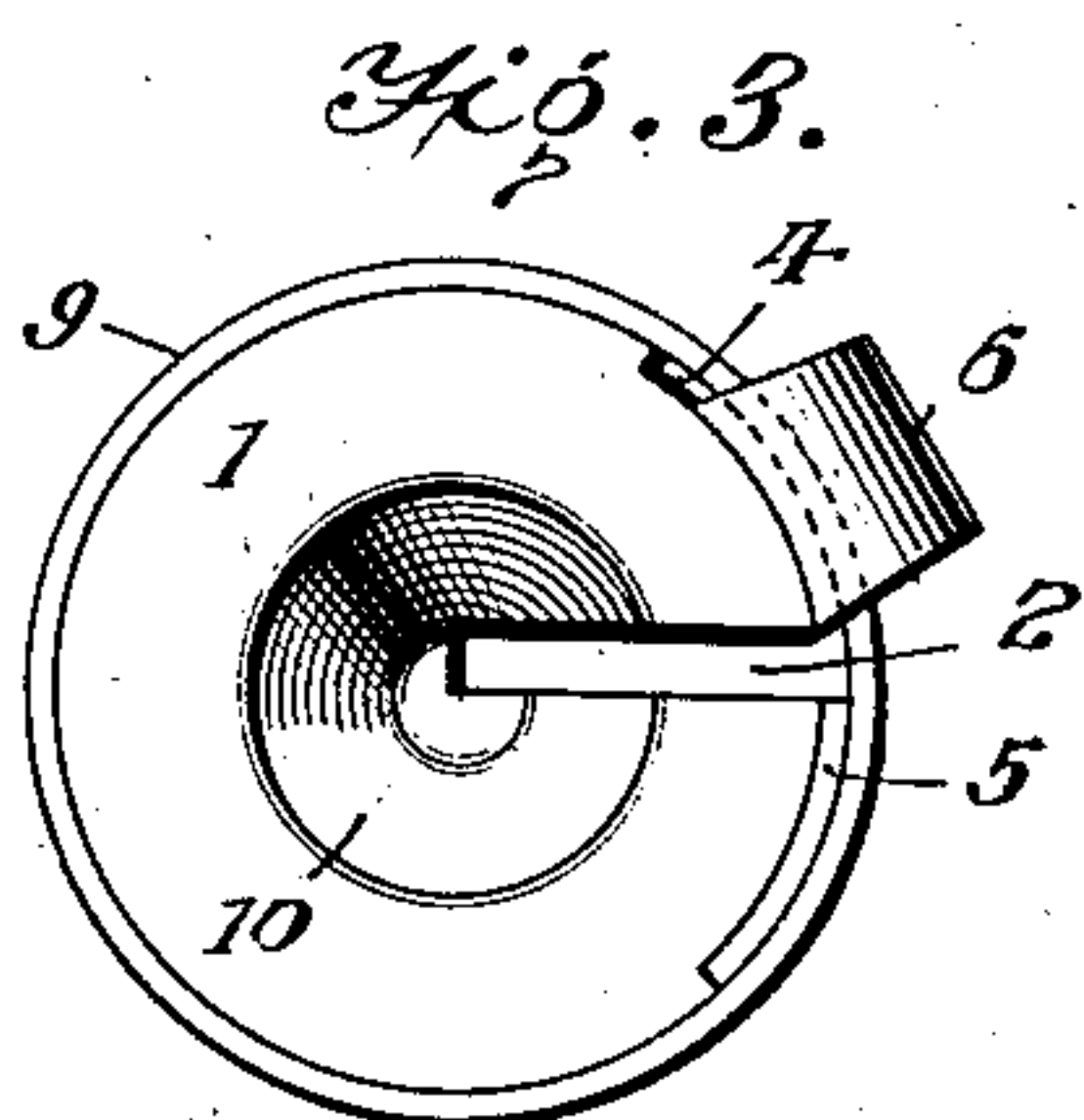
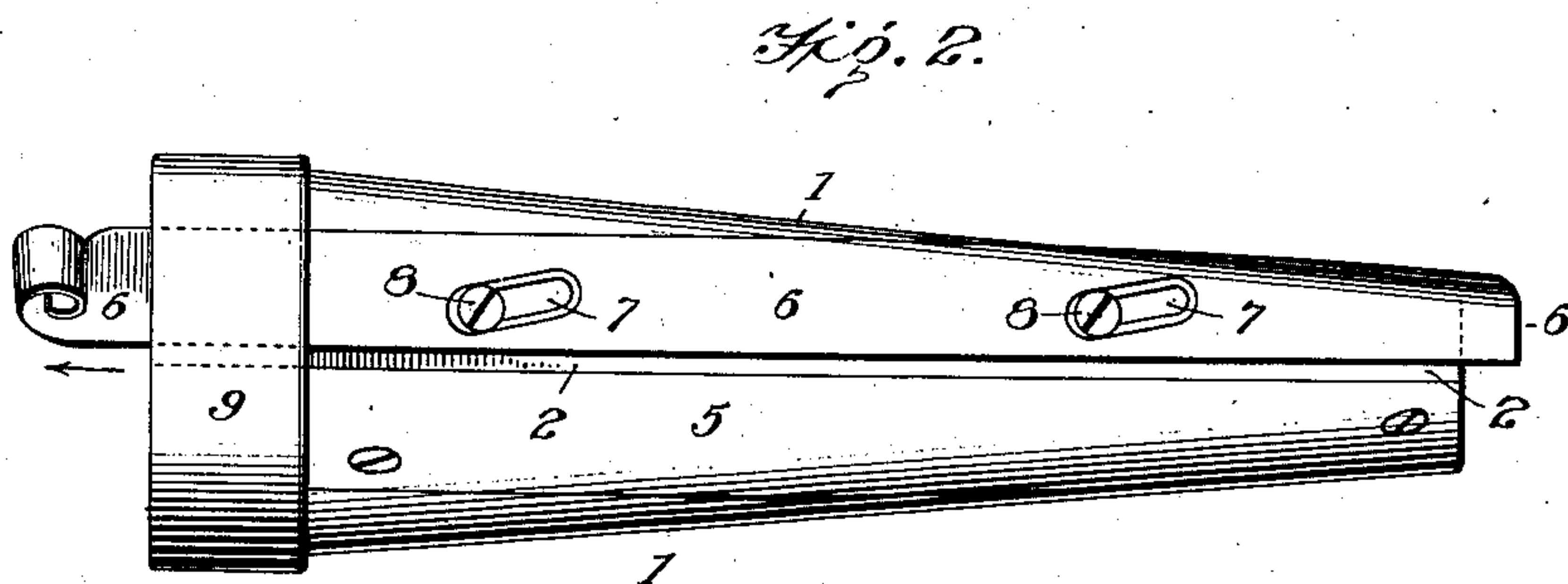
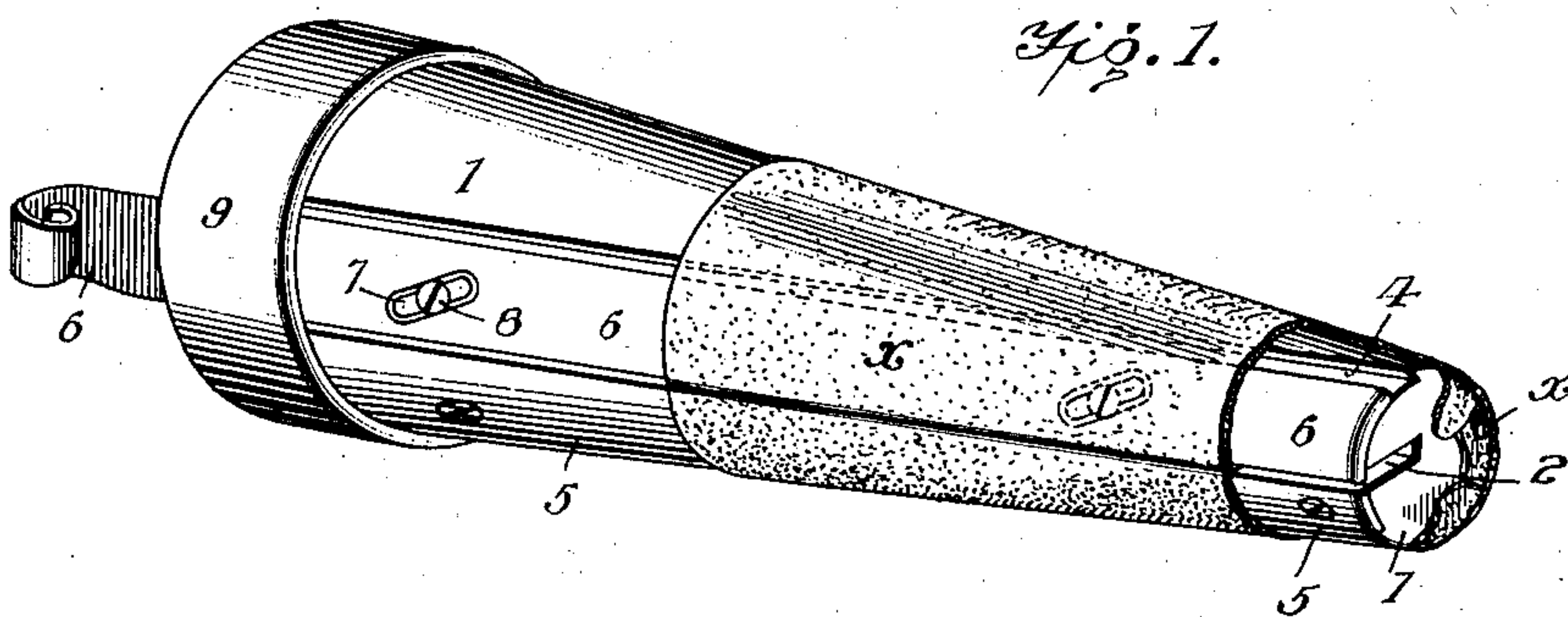
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PATENTED JUNE 2, 1908.

M. O. RANDALL & A. J. CAMPBELL.

TOOL FOR HOLDING SHEETS OF ABRADING AND POLISHING MATERIAL.

APPLICATION FILED AUG. 6, 1907.



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UNITED STATES PATENT OFFICE.

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TOOL FOR HOLDING SHEETS OF ABRADING AND POLISHING MATERIAL.

No. 889,717.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed August 6, 1907. Serial No. 387,378.

To all whom it may concern:

Be it known that we, MERTON O. RANDALL and ALEXANDER J. CAMPBELL, citizens of the United States, and residents of Los Angeles, in the county of Los Angeles and State of California, have invented an Improved Tool for Holding Sheets of Abrading and Polishing Material, of which the following is a specification.

Our invention is an improvement in that class of devices adapted for carrying or holding sandpaper and other abrading or polishing sheets.

The construction of the device is herein-after described and shown in the accompanying drawing, in which

Figure 1 is a perspective view of the tool or device, a sheet of sand-paper being shown secured thereto and a portion thereof being broken away. Fig. 2 is a plan view of the same showing the slidable clamping plate in the open position. Fig. 3 is a view of the larger end of the tool or device. Fig. 4 is a view of the smaller end of the tapered body of the device. Fig. 5 is an enlarged cross section of the tool or device with sand-paper secured thereto. Fig. 6 is a plan view showing modification of the slidable clamping plate or strip.

The body 1 of the tool or device is tapered and smooth and provided with a radial lengthwise slot 2; also, with circumferential grooves 3 and 4, which, as shown in Fig. 4, extend from end to end and are on opposite sides of the radial slot 2. The metal plate 5 is secured in the groove 4 so that its outer side conforms to the curvature of the body, the edge adjacent to the slot being flush with one side of the latter as shown in Fig. 5. A movable, or slidable, plate or strip is arranged in the groove 4 of the body and similarly curved transversely and made of such thickness that it forms a smooth continuation of the outer surface of the body. It is made practically of the same width as the groove 4 and is provided with slots 7 having an acute inclination to the groove 2. The wood screws 8 pass through these slots and secure the plate to the body 1. A band 9 encircles the butt, or larger end, of the body or stock 1.

In order to secure a sheet of sand-paper or other abrading or polishing sheet x to the tool, the opposite edges y , see Fig. 5, are bent inward and inserted in the groove 2, it being

understood that the clamping plate or strip 6 is first adjusted, as shown in Fig. 2, whereby its inner edge is separated from the opposite edge of the fixed plate 5. When the ends of the sand-paper x have been thus inserted in the groove, the plate or strip 6 is pulled back in the direction of the arrow, Fig. 2, whereby it has a compound movement, in that it moves radially on the body of the tool and thus clamps the ends y of the sand-paper, as shown in Figs. 1 and 5. It retains this hold by friction.

As indicated in Fig. 1 the sand-paper is preferably extended over the small end of the body of the tool. Thus the tool is adapted for use by dentists, jewelers, and others, for polishing various articles.

It is apparent that by pushing against the head of the movable strip 6, the latter will be slid lengthwise and at the same time moved away from the opposing edge of the fixed plate 5, thus releasing the sand-paper or sheet of other material.

In Fig. 6, we show a modification in which the slidable plate or strip 6^a is provided with a single slot and screw instead of two as in the form of the invention shown in the other figures. The operation is, however, the same in essentials. This form of the invention is practicable because the sheet of abrading or polishing material is secured ordinarily only to the reduced or smaller end of the tool, and hence it is only at that point it is requisite the clamping plate shall be adapted to separate or move back from the fixed plate.

In practice the ends of abrading or polishing material are cut so that they will not only encircle the body of the tool but have about $\frac{3}{8}$ of an inch in excess, which portion is turned down into the slot 2 as before described.

The body or stock 1 is provided at the larger end with a longitudinal bore 10, see Figs. 3 and 5, to adapt it for attachment to the spindle of a lathe or to any other device that may be employed to facilitate its practical use.

It is obvious that owing to the inclination of the slots 7, the clamping plate will approach or separate from the opposite edge of the fixed plate 5 according to the direction in which the plate is moved.

What we claim is:

1. The improved tool for the purpose specified comprising a body portion having a

longitudinal radial groove, and a slidable clamping plate arranged on one side of such groove and adapted to slide lengthwise, means for guiding the plate away from the
5 opposite edge of the groove when pushing in one direction and for guiding it towards the same when forced in the opposite direction, said plate being arranged on the outer side of the body and thus forming a continuation
10 of its circumference, as shown and described.
2. The improved tool for the purpose specified comprising the tapered body having a longitudinal radial groove 2, surface
15 grooves 3 and 4 on opposite sides of the radial groove, a plate fixed in the surface groove 3, and its edge being flush with that of the radial groove, a clamping plate ar-

ranged in the opposite surface groove 4 and provided with inclined slots, screws passing through such slots and serving to secure the
20 clamping plate to the body of the tool and also for guiding the same towards or away from the opposite edge of the fixed plate, both plates forming practically a smooth continuation of the surface of the body, sub- 25
stantially as described.

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