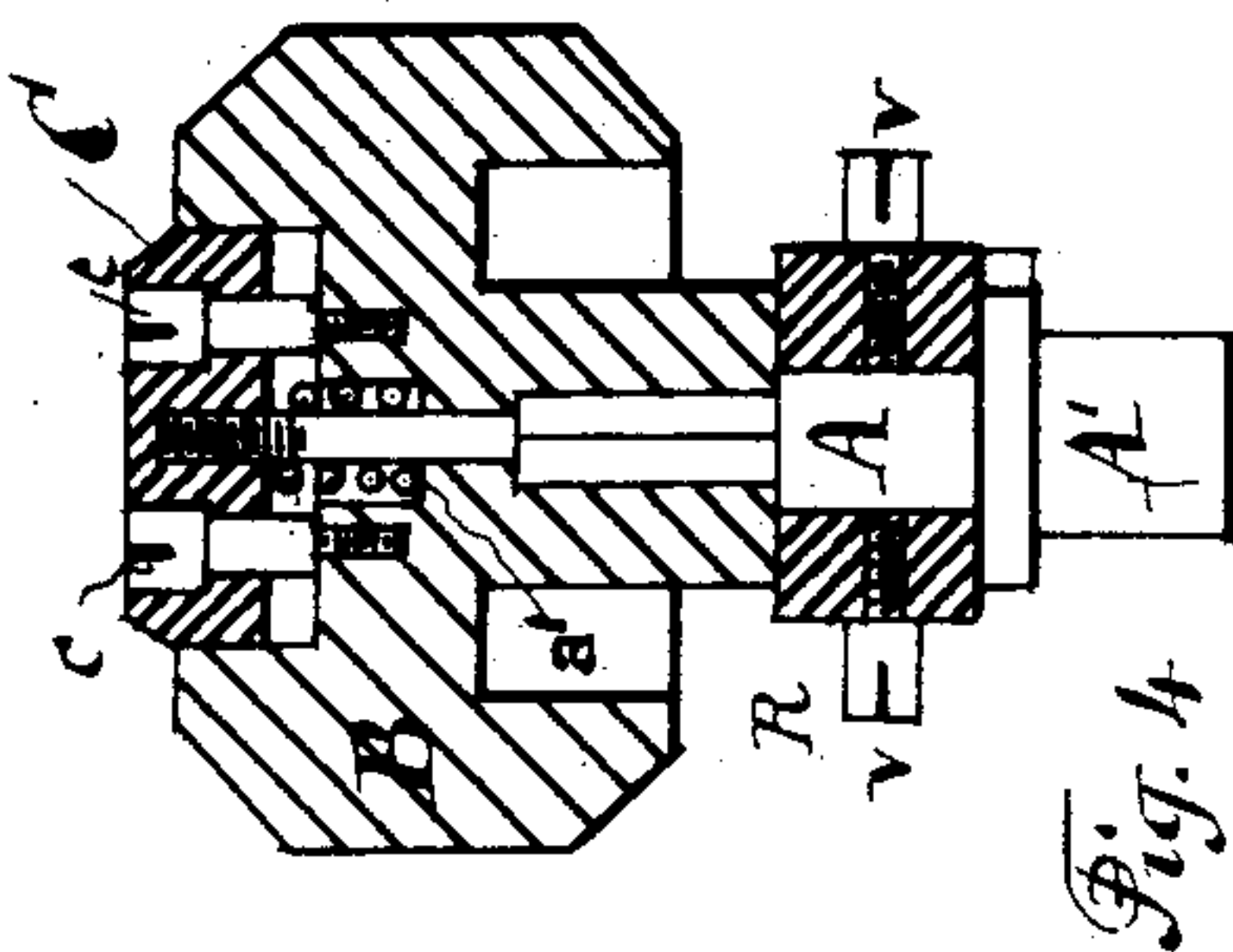
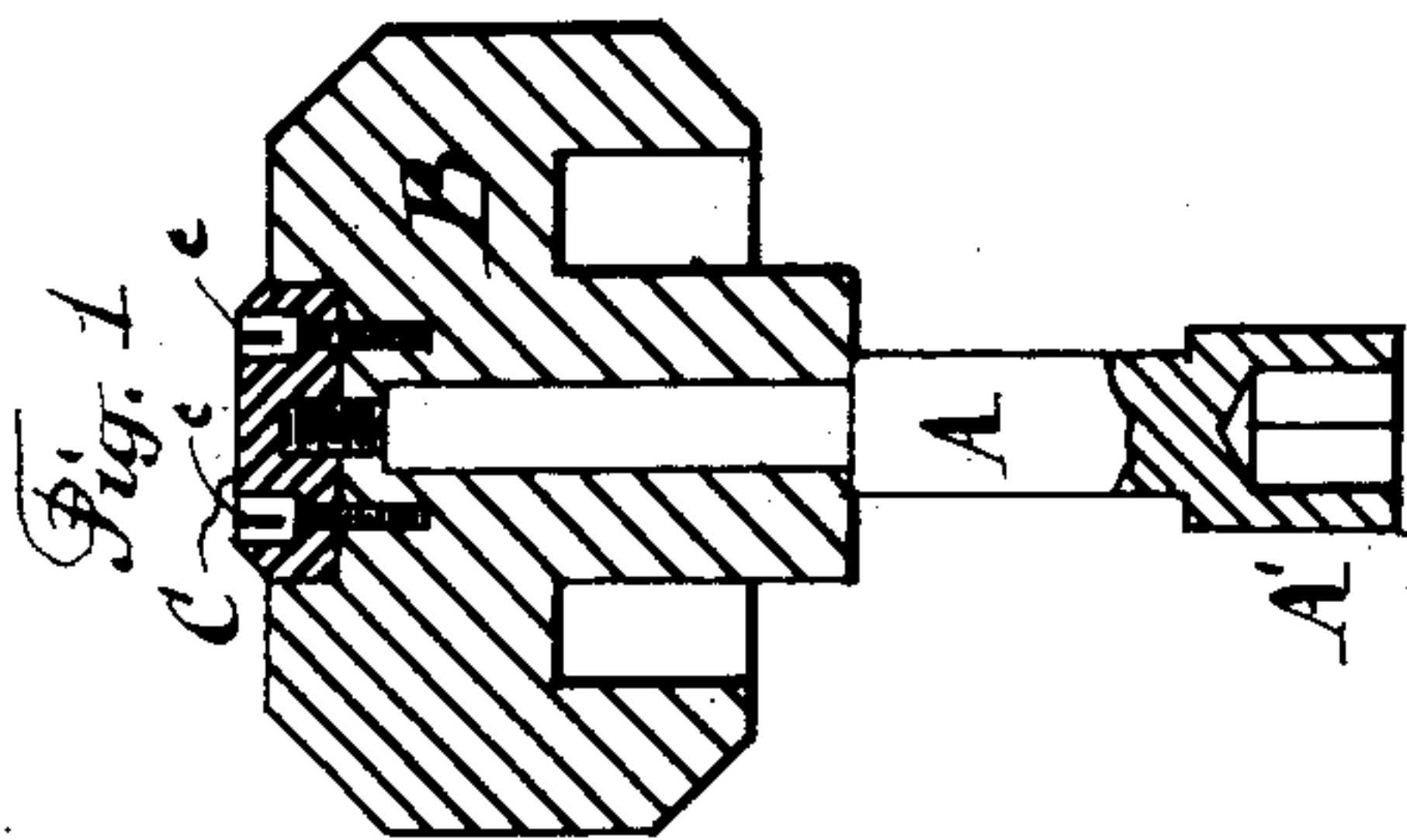
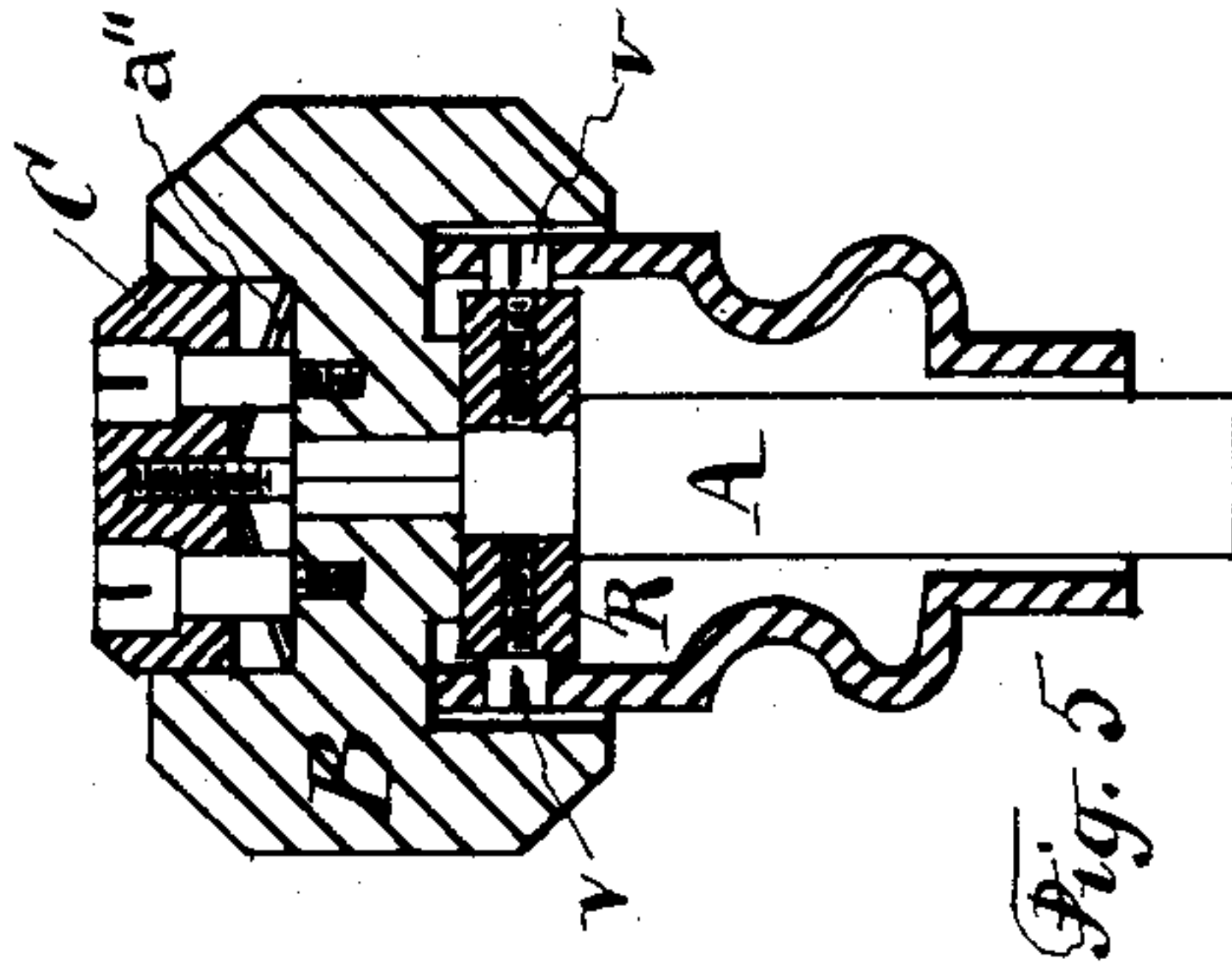
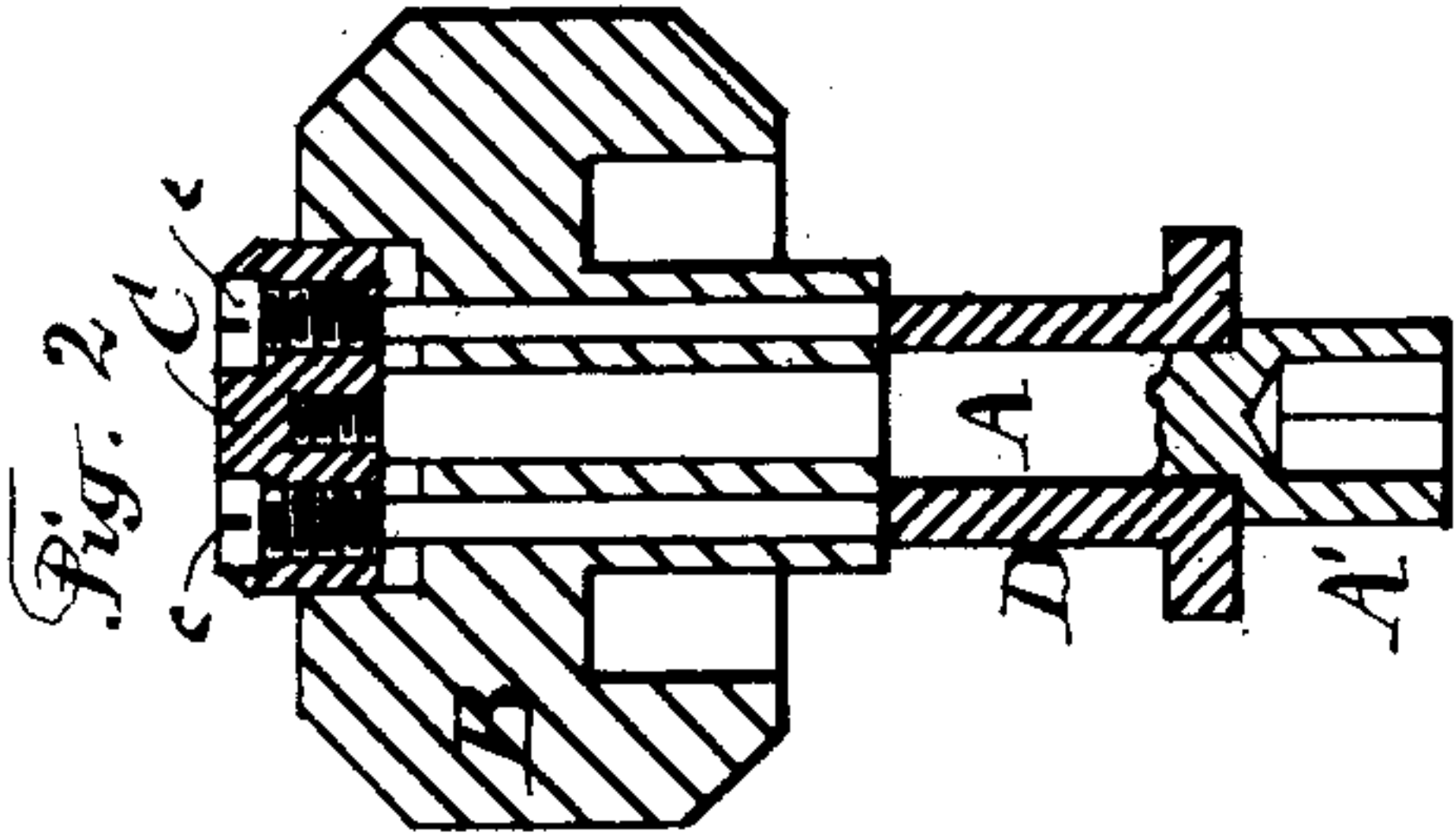
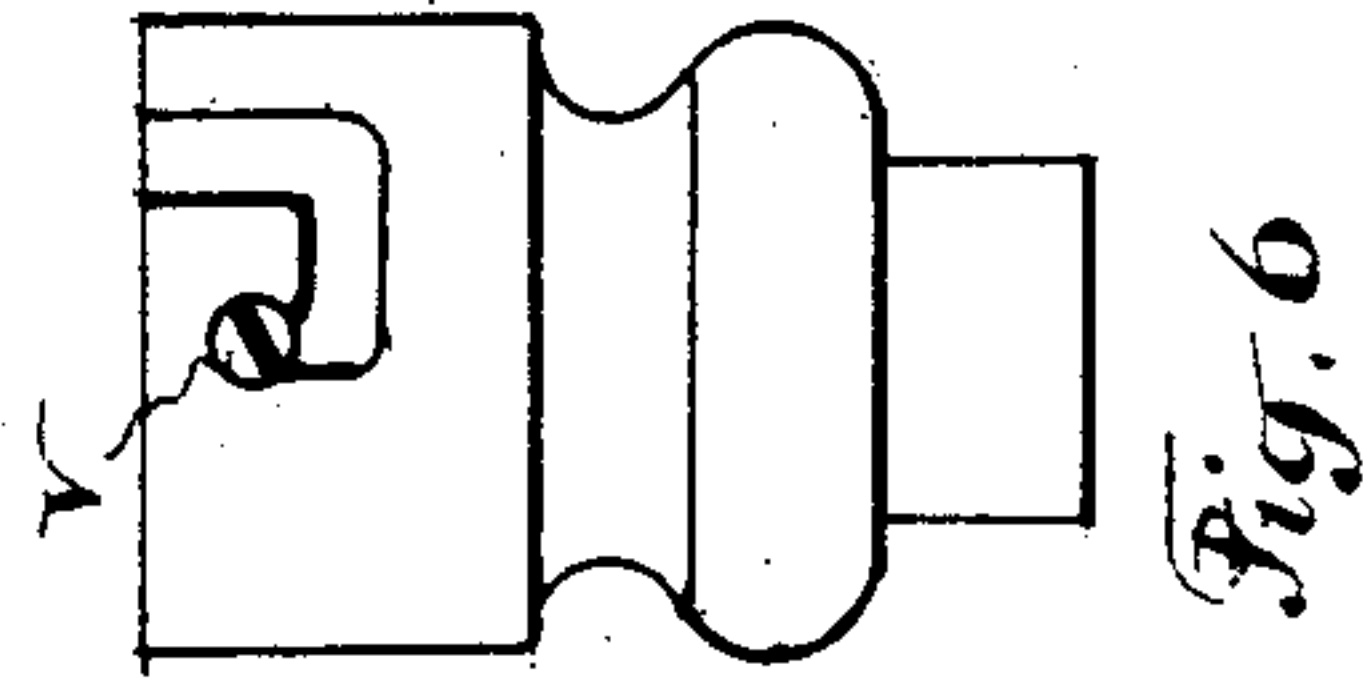
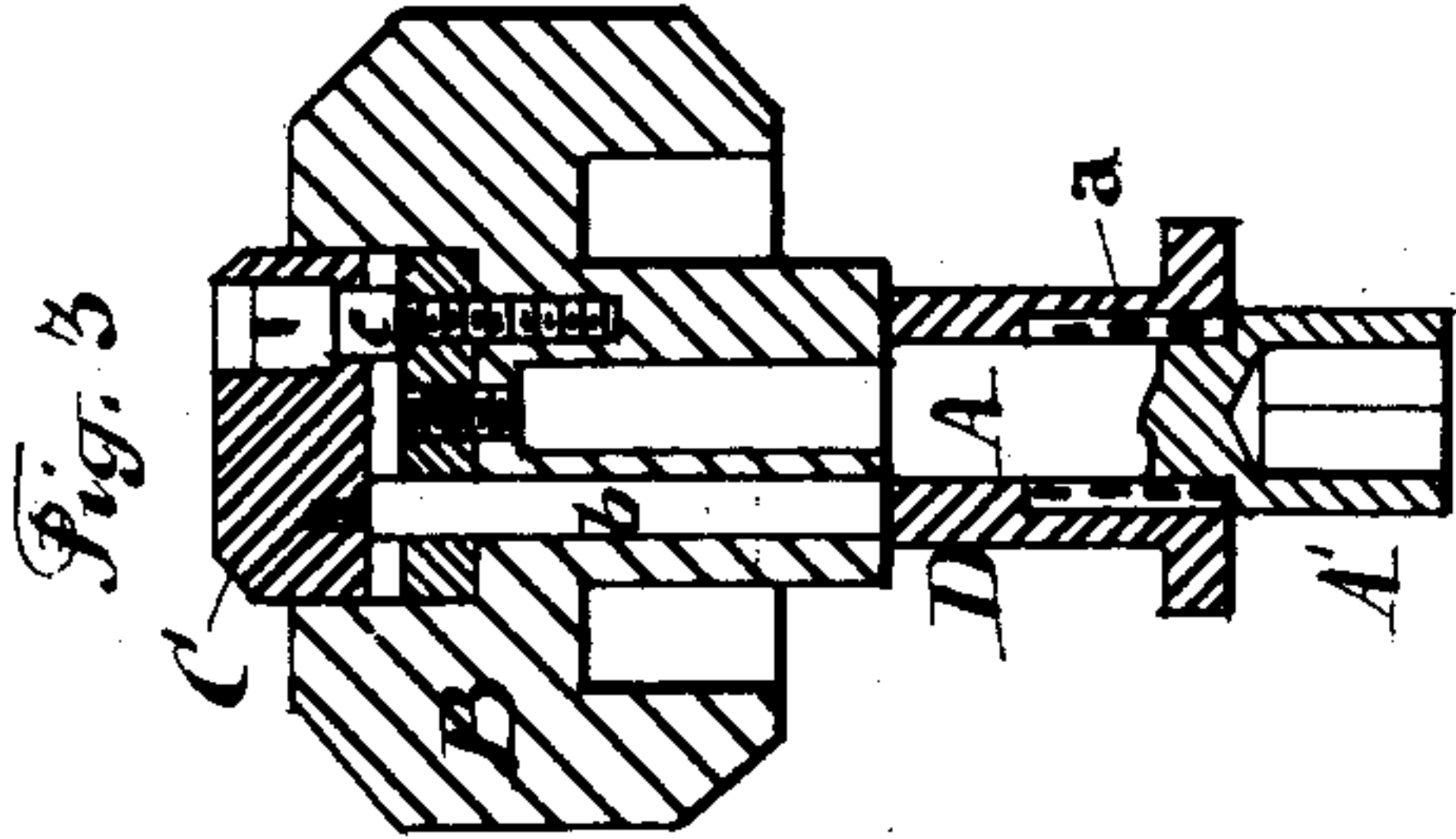


(No Model.)

P. PERRET.
WATCH PENDANT.

No. 402,473.

Patented Apr. 30, 1889.



Witnesses,
Chas. H. Smith
J. Hail.

Inventor,
Paul Perret.
Per Lemuel W. Correll
att.

UNITED STATES PATENT OFFICE.

PAUL PERRET, OF CHAUX-DE-FONDS, SWITZERLAND.

WATCH-PENDANT.

SPECIFICATION forming part of Letters Patent No. 402,473, dated April 30, 1889.

Application filed November 12, 1888. Serial No. 290,544. (No model.)

To all whom it may concern:

Be it known that I, PAUL PERRET, watch manufacturer, of Chaux-de-Fonds, in Switzerland, have invented an Improvement in Stem-Winding Crowns for Watches, of which the following is a specification.

The object of this invention is to secure the winding-stem and the crown together in a more reliable manner than heretofore, and to allow for the easy withdrawal of the stem when the movement is to be taken out of the case.

In the drawings, Figure 1 is a vertical section of the crown and a portion of the stem and of the securing device. Fig. 2 is a similar view of the parts as adapted to a watch with a hunting-case. Fig. 3 is a slight modification of the devices shown in Fig. 2. Figs. 4 and 5 are sections illustrating the manner in which the parts are secured within the pendant, and Fig 6 is an elevation of the pendant.

The stem A is provided with a socket, A', at one end, which is adapted to receive the square upon the winding-stem in the watch-works. These parts are of usual character, except that the stem A is secured to the crown B in the manner hereinafter described. This crown B is recessed at its lower end to receive the upper end of the pendant, Fig. 6, as is usual in watches; but in order to secure the stem A to the crown B, I reduce the stem in diameter, as shown, so as to pass the same through a central hole in the crown B, and this reduced portion of the stem may be square, as indicated in Fig. 4. Under all circumstances there is a shoulder upon the stem A, with which the lower end of the crown B comes into contact, and there is a nut, C, screwed upon the reduced and screw-threaded upper end of the said stem A, and this nut is recessed into the upper end of the crown B. Upon reference to Fig. 1 it will be seen that this nut C, after being screwed up tightly, is held in position and kept from turning by the screws c, passing through the nut C into the crown B, so that the crown can be separated from the stem A by removing the screws c and unscrewing the nut C. This is the main feature of my improvement, and will be found in all of the forms represented.

In Fig. 2 the before-described improve-

ments are represented; but in addition there is a cannon, D, surrounding the stem A between the socket A' and the crown B, and this cannon has a flange at its lower end, as usual, to act upon the spring of the hunting-case when the stem A receives an endwise motion, and to allow of this endwise motion the nut C does not in its normal position touch the bottom of the recesses in the crown B, but the screws c, that prevent the nut C turning, are continued as rods of reduced size, that pass through holes in the head b and rest against the upper edge of the cannon D, thereby allowing these screws c to press directly upon the cannon D and give motion to the same when the thumb is applied to the nut C for opening the case.

In Fig. 3 the devices correspond to those shown in Fig. 2, with the exception that a secondary nut is provided upon the end of the stem A, and the rod b, connected with the nut C and resting against the upper edge of the cannon D, takes the place of the rods that form continuations of the screws c, Fig. 2, and, as represented in Fig. 3, the end of the cannon D is sufficiently large to slip over the socket A', and there is a helical spring, a, in the recess that serves to return the parts to their normal position.

In Figs. 4 and 5 the mode of connecting the before-described cannon and stem to the pendant is illustrated. The collar R around the stem A intervenes between the socket A' and the lower end of the crown B, and into this collar R the screws v pass, the heads being in holes within the pendant of the watch, as illustrated in Fig. 5, and in these two figures I have also represented springs between the nut C and the crown B. In Fig. 4 the spring a' is helical, and in Fig. 5 the spring a'' is elliptical or dish-shaped. In both these figures the nut C is held from turning by the screws that pass through the same into the crown, and to operate the spring of the hunting-watch case the nut C is to be pressed endwise of the pendant to give motion to the stem A and the parts upon which it operates, but the stem is free to be rotated by revolving the crown B.

In Fig. 6 the exterior of the pendant is represented, and the hole through which one of the screws v passes is formed as a bayonet-slot,

so as to allow the parts to be disconnected without unscrewing the screw *v*.

I claim as my invention—

- 5 1. The combination, with the crown B and the winding-stem A, passing through the said crown, of the nut C, screwed upon the end of the stem, and the small screws *c*, for preventing the nut becoming unscrewed, substantially as set forth.
- 10 2. The crown B, having a central hole and recessed for the end of the pendant, in combination with the stem A, having a socket, A', at one end, the nut C, screwed upon the

other end of the stem and occupying a recess in the crown, the screws *c*, passing through 15 the nut into the crown, and a spring between the nut and the crown, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two sub- 20 scribing witnesses.

PAUL PERRET.

Witnesses:

NUMA PERRET,
ALBERT FAVRE.