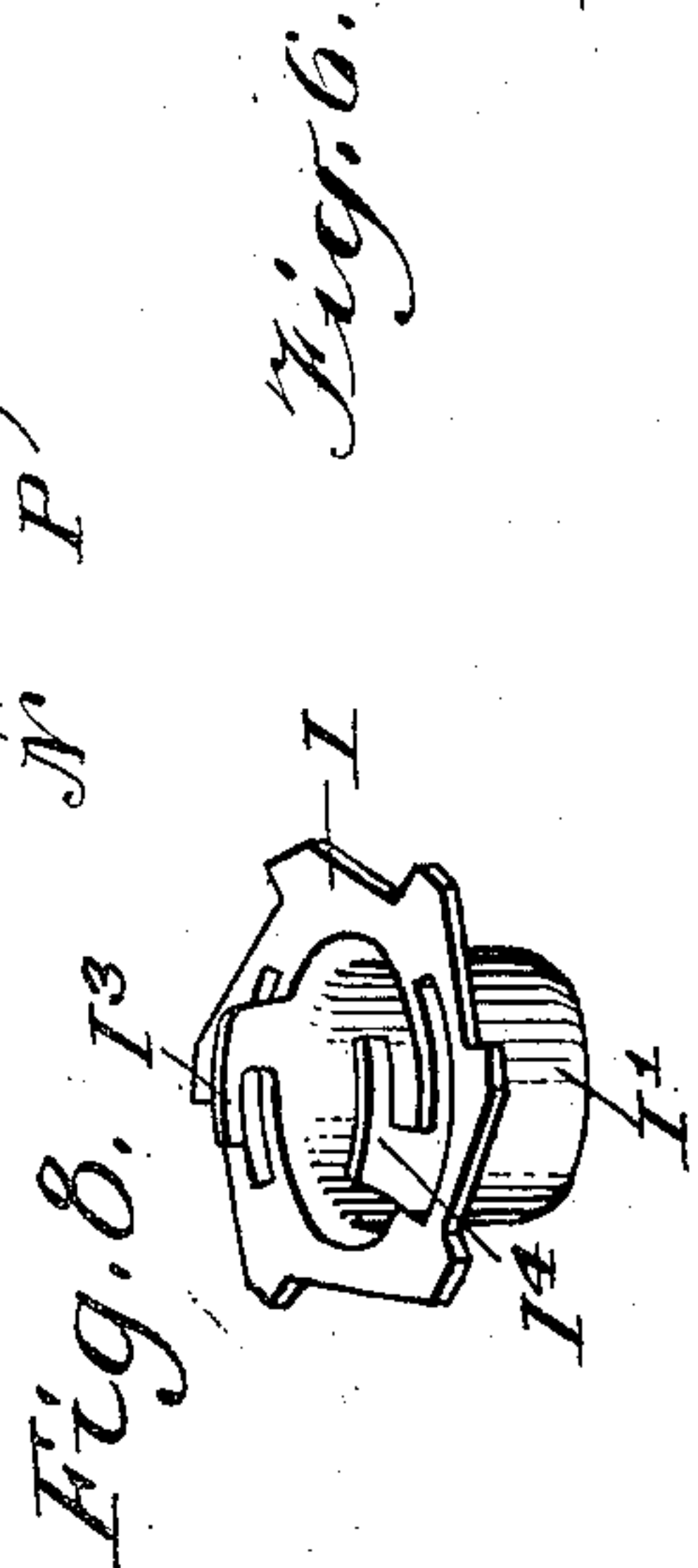
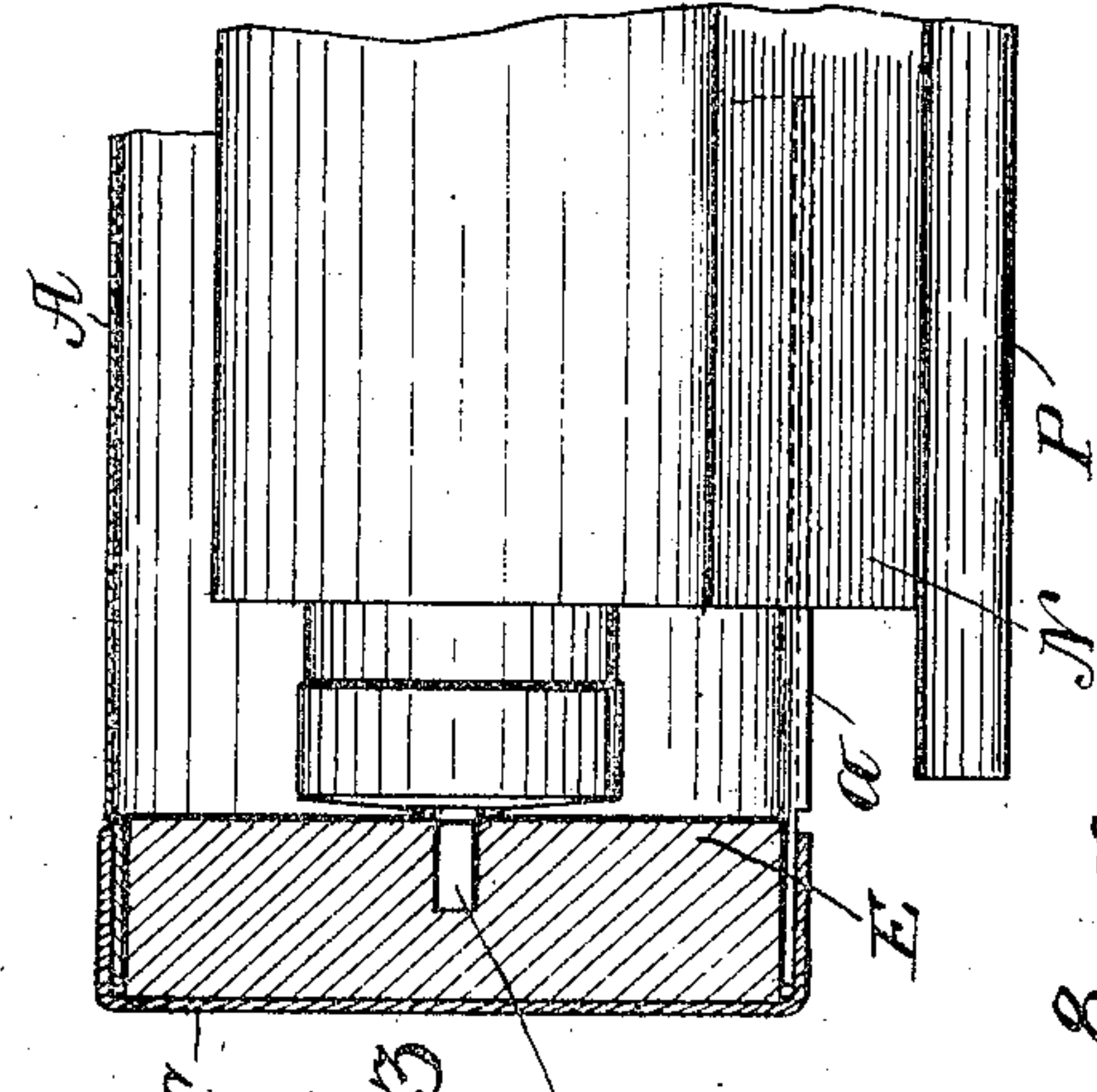
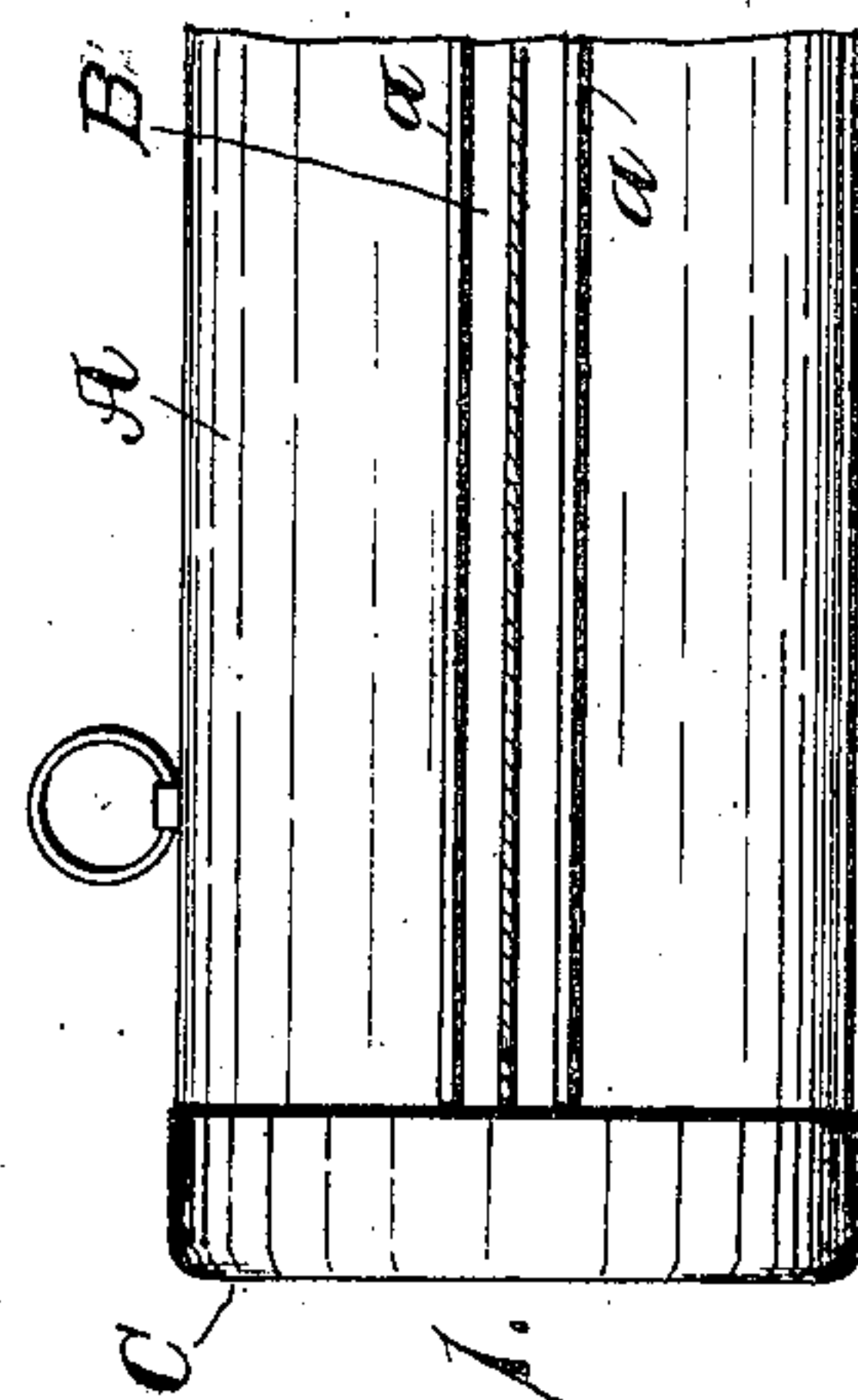
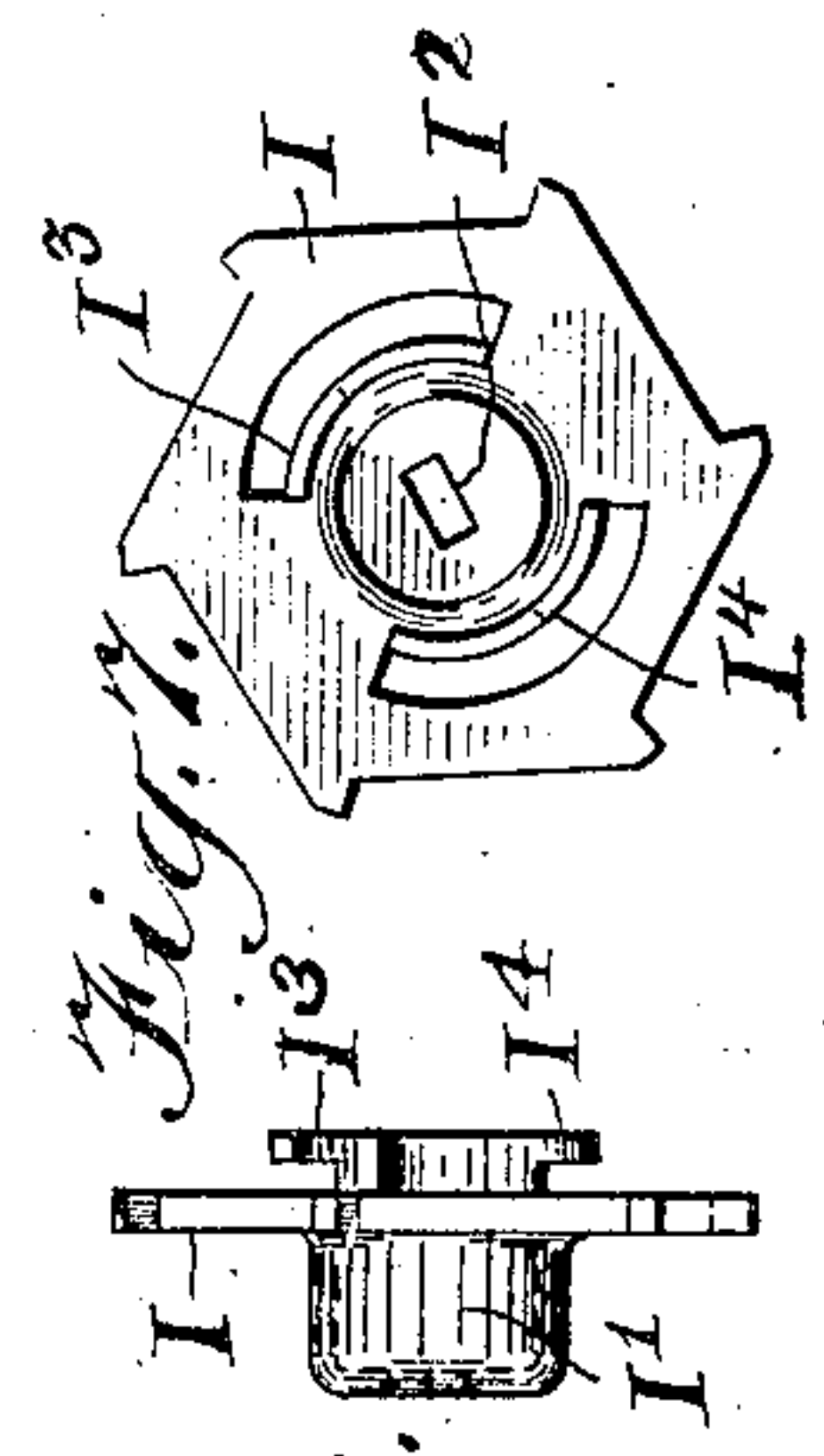
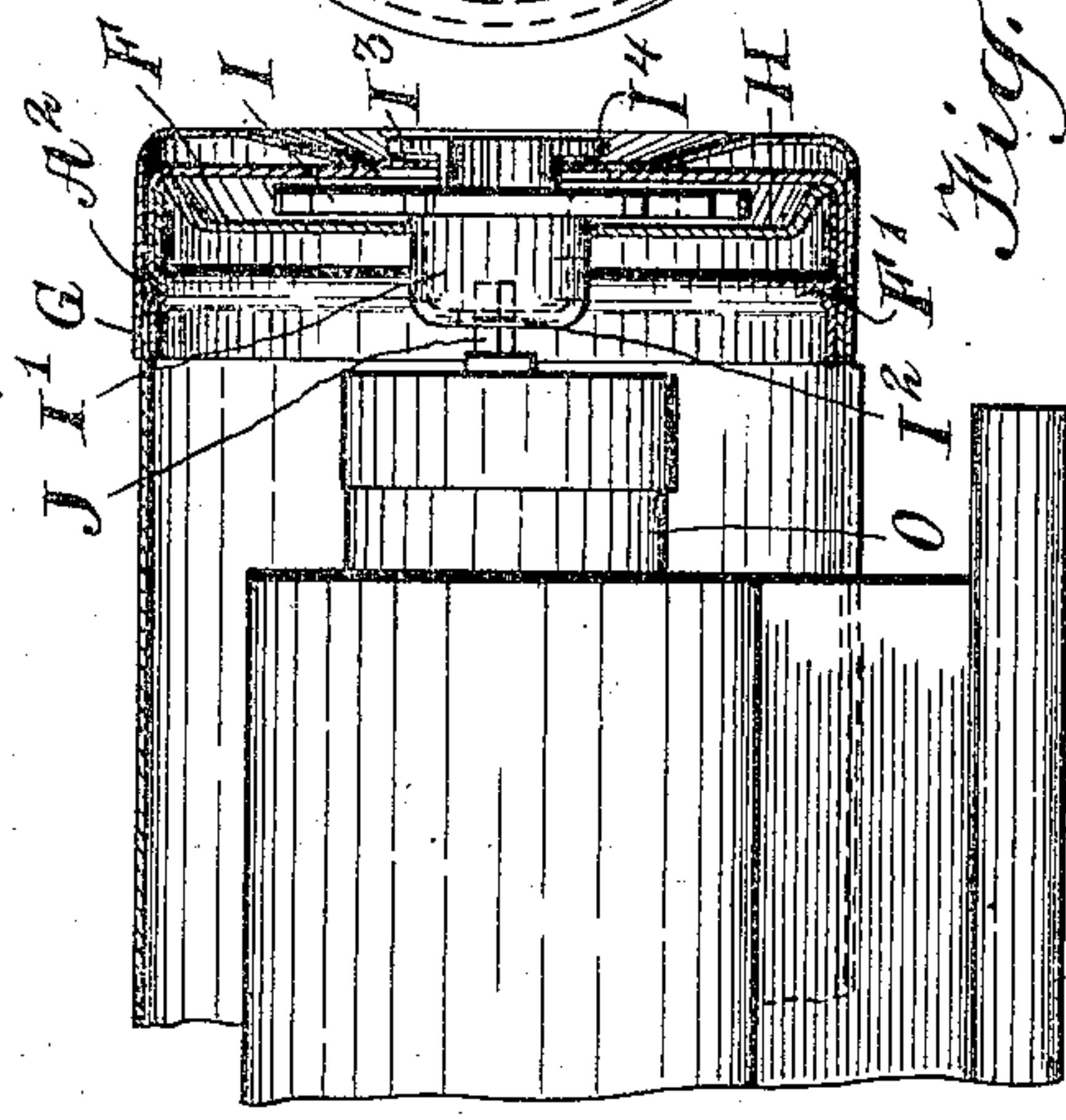
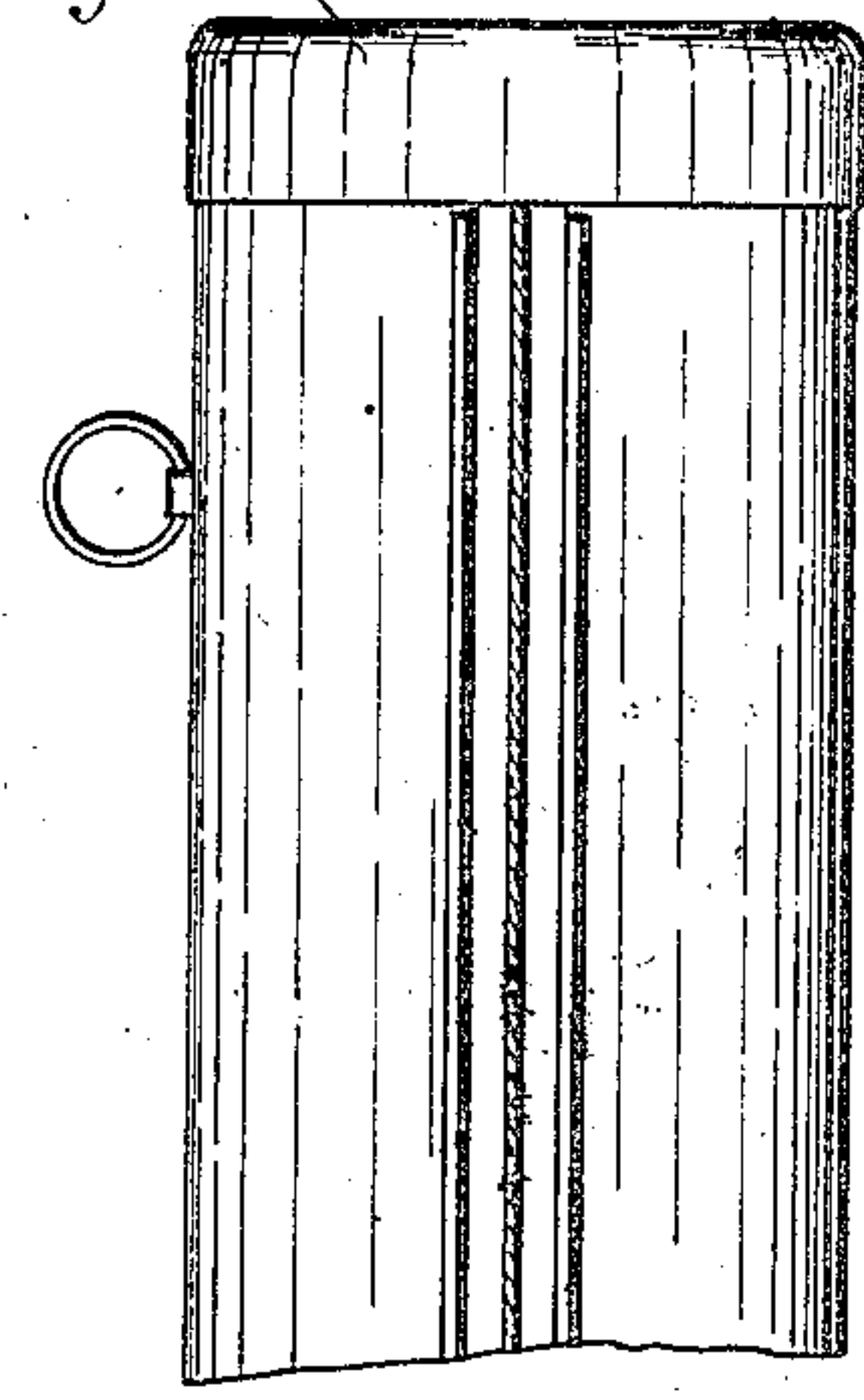
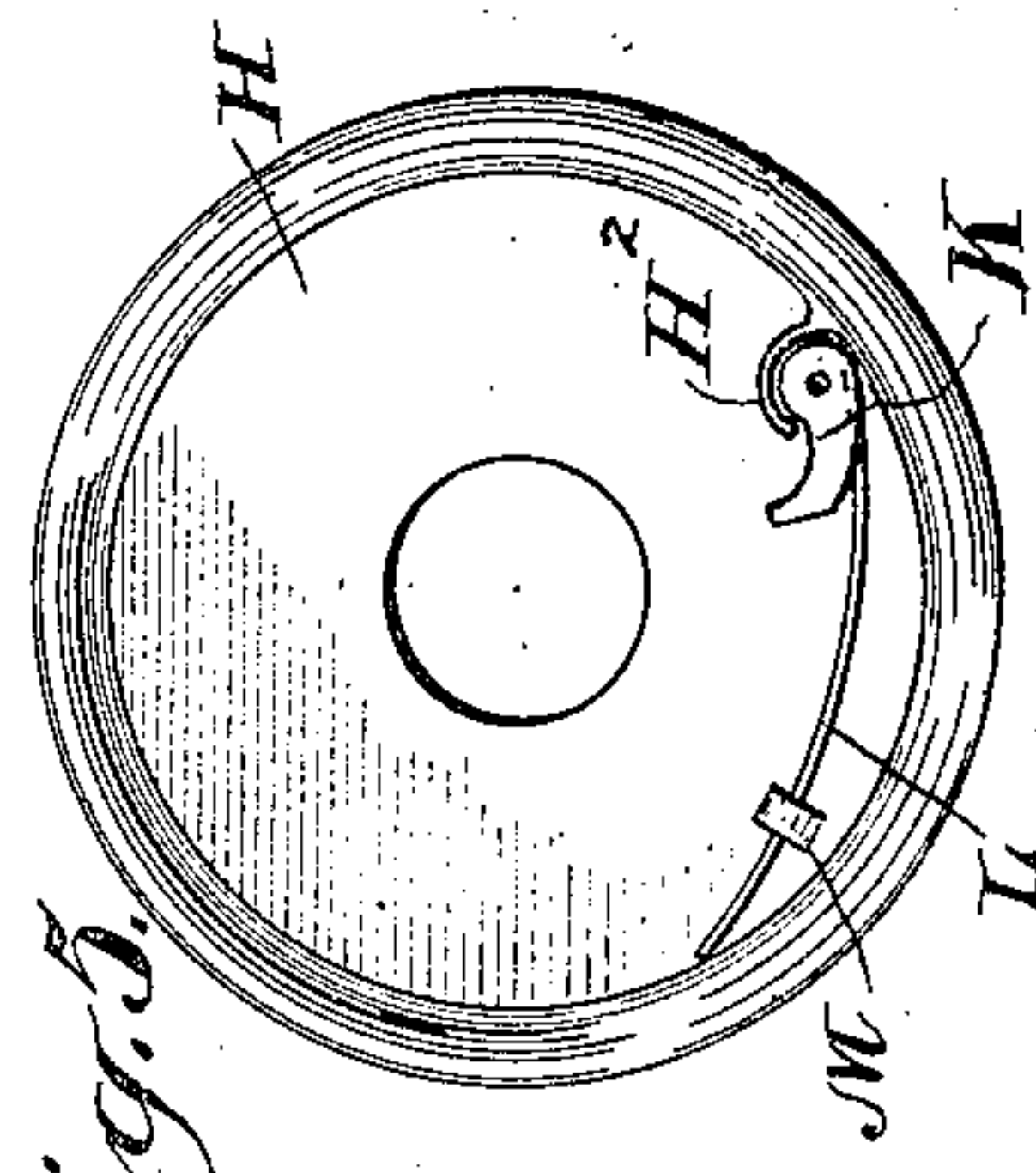
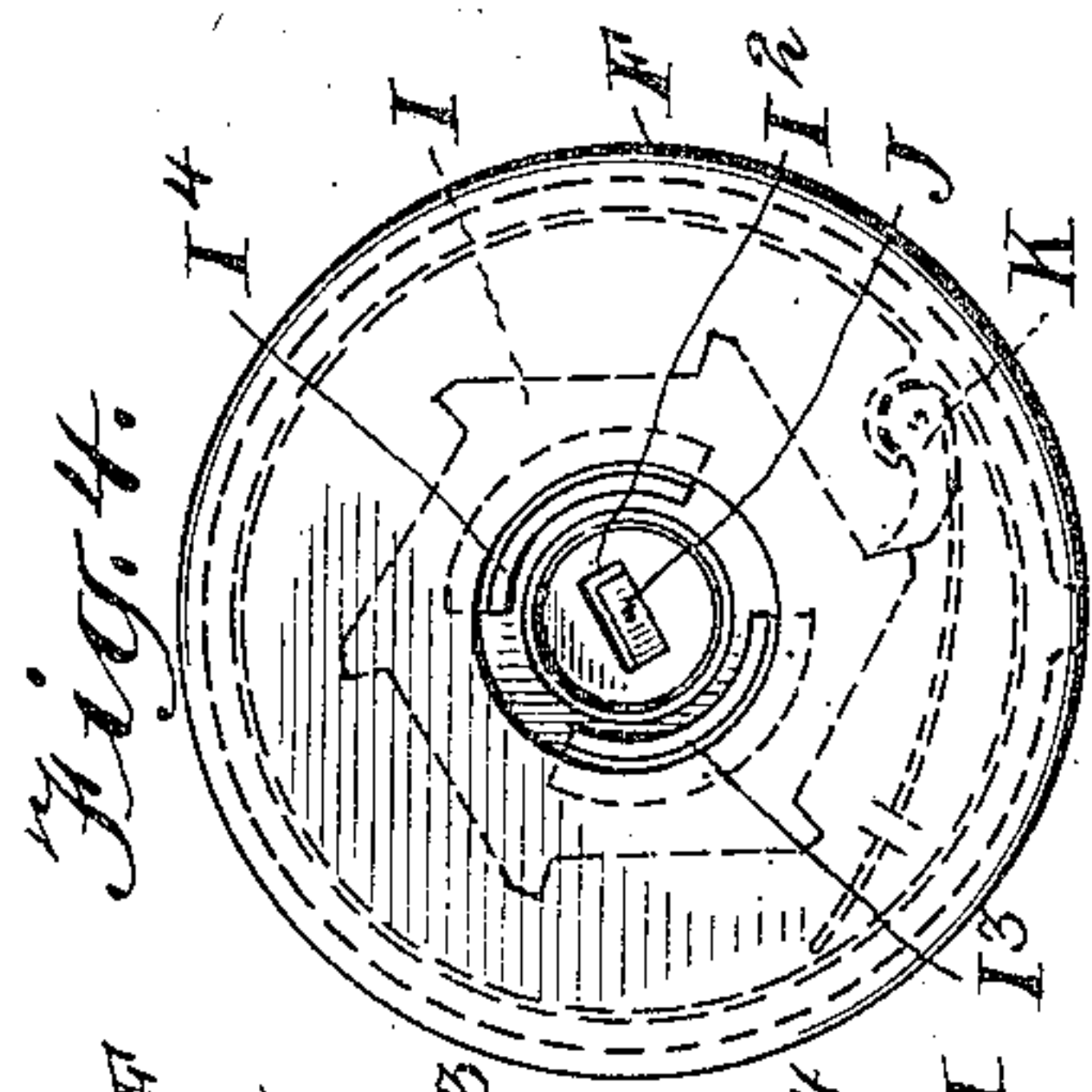
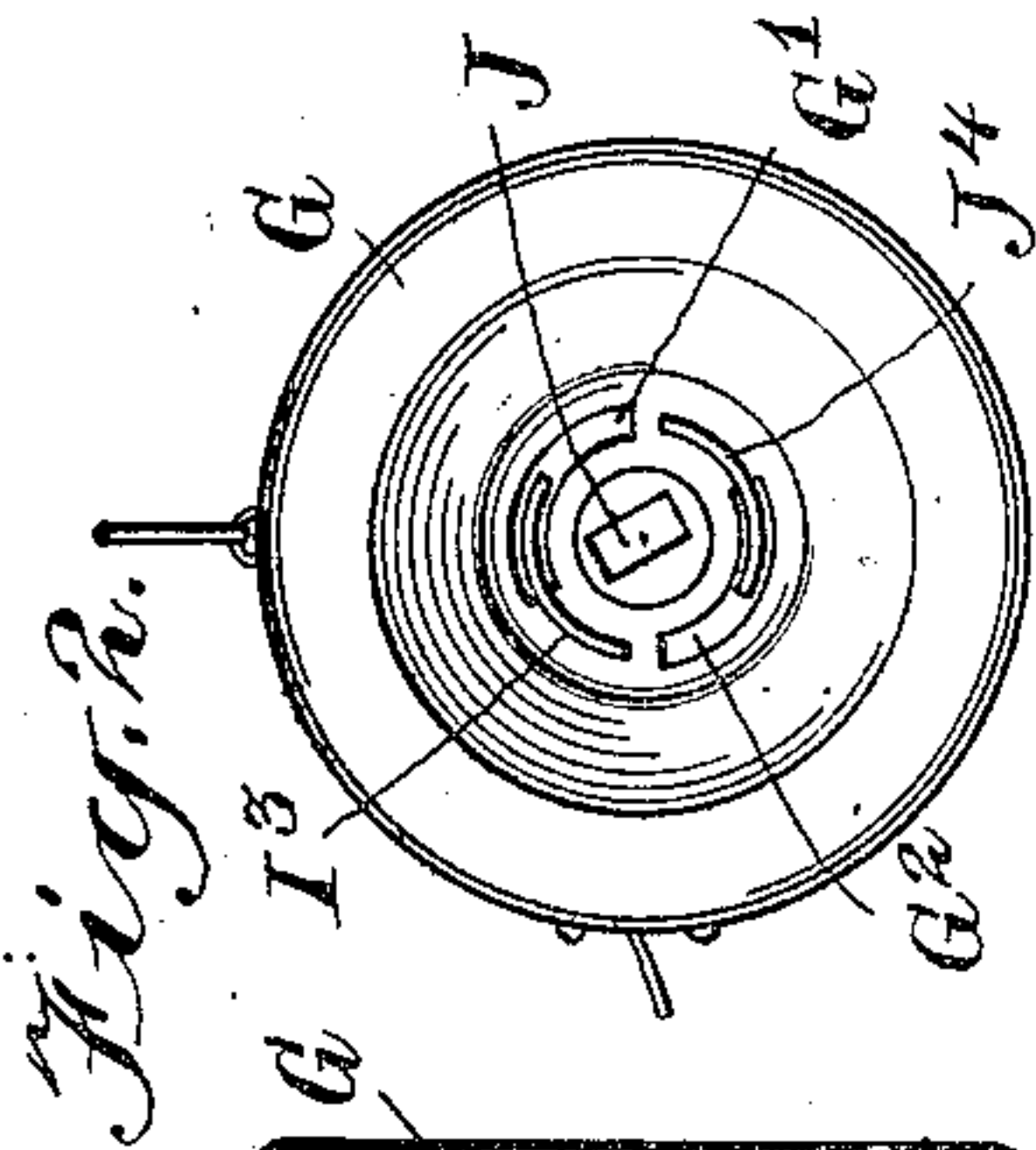


A. S. SMITH.
 MAP CASE.
 APPLICATION FILED OCT. 4, 1906.

921,901.

Patented May 18, 1909.



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UNITED STATES PATENT OFFICE.

ALBERT SIMPSON SMITH, OF NEW YORK, N. Y.

MAP-CASE.

No. 921,901.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed October 4, 1906. Serial No. 337,498.

To all whom it may concern:

Be it known that I, ALBERT SIMPSON SMITH, citizen of the United States, and resident of New York, county of New York, State of New York, have invented certain new and useful Improvements in Map-Cases, of which the following is a specification.

My invention relates to map cases, and more particularly to that class in which is provided means for holding the map in a rolled condition.

One of the objects is to provide means whereby the tension of the map roller may be increased without removing the roller from the case.

Referring to the drawings:—Figure 1 is a front view of a map case constructed in conformity with this invention, showing the map edge in section in the center of the case opening. Fig. 2 is an end view of the case. Fig. 3 is a longitudinal section of the case, showing the parts enlarged. Fig. 4 is a detail view of the ratchet case, the wheel and pawl being shown in dotted lines. Fig. 5 is a detail view of the inner plate of the ratchet case. Fig. 6 is a detail edge view of the ratchet wheel. Fig. 7 is a detail side view of the said ratchet wheel. Fig. 8 is a detail view in perspective of the said ratchet wheel.

A— indicates a sheet metal, cylindrical case provided with beaded edges —a— on each side of the opening —B— through which the map is drawn when displayed. The case —A— is provided with an extension indicated by A². The head —E— is inserted in the case —A— after the cap —C— is in position and is of such diameter as to prevent the case end from being compressed. A bearing for the end of the map roller —D— is formed in the head —E—.

At the other end of the case —A— is the ratchet case —F— which forms a head for the case —A—. The ratchet case —F— is provided with a groove —F'—, and is inserted in the end of the case —A— for the annular extension —A²— to rest in the groove —F'. When the outer cap —G— is slipped over the end of the case —A—, the ratchet case —F— and the case —A— are held together.

Carried in the ratchet case —F— is a plate —H—. Between plate —H— and case —F— is held a ratchet wheel —I—, the hub —I'— of which is mounted in an opening in the center of the plate —H—. The hub —I'— is provided with a rectangular slot —I²— in

which the rectangular end —J— of the roller —O— is inserted. The ratchet wheel —I— is provided with two undercut extensions —I³— and —I⁴—. These extensions are undercut to form slots with which cap —G— co-acts. Cap —G— is provided with two circular openings —G'— and G²— large enough to pass over the extensions —I³— and —I⁴—. By rotating the cap —G—, the solid top of the cap —G— passes into the slots in the extensions, —I³—, —I⁴—. The cap —G— is then locked on the case, as shown in Fig. 2.

Fig. 5 shows the manner in which the pawl —K— is mounted. The plate —H— is provided with a raised semicircular shoulder H², which shoulder is slightly deeper than the thickness of the ratchet wheel, and the pawl is of the same thickness as the ratchet wheel, so that when the pawl is placed in position it is held in operative relation with the ratchet —I—. The shoulder —H²— serves to prevent the cap —F— being jammed upon the pawl —K— to interfere with the free movement of the same. The spring —L— presses the pawl in contact with the ratchet —I—. The spring —L— is secured to the plate —H— by a loop —M—.

The ratchet case —F— of which —H— forms a part is provided with any suitable means for securing it to the case —A— so as not to be rotated when the ratchet —I— is rotated. The ratchet wheel together with the rectangular end —J— and the spring inside the roller —O— is rotated by rotating the cap —G— which is connected to the ratchet by the bayonet joint as above described.

In assembling, the roller with the map attached, the cap —C—, and head —E— are placed in position, and then the roller —O— (which is the usual window shade roller with spring, ratchet, and pawl complete) is inserted through the other end of the case, allowing the free edge of the map —N— to extend through the opening —B— of the case —A— as shown in Fig. 3. The ratchet case —F— is now placed in position in the case —A—, the rectangular end —J— of the map roller being inserted in the slot —I²—. The extension —A²— is forced into the groove —F'. The cap —G— is then placed over the end of the case —A—, and rotated into position with respect to the extensions —I³—I⁴—, so the ends of the latter

lap over the metal of the cap, thus locking the various named parts together.

To increase the tension of the spring within the roller —O—, I rotate the cap —G— and by it the ratchet wheel —I—, which engages the rectangular end —J— of the spring within the roller —O—.

What I claim as new in my invention is:

1. A map case comprising a cylinder having an inward projection near the end to engage an interior head; a head to rest within said cylinder to engage said projection to prevent lateral displacement; a winding mechanism rotatably mounted in said head to move in one direction only to increase the tension of the spring in the roller on which the map is mounted; an automatically controlled spring actuated roller mounted in said head and engaged with said winding mechanism; and a cap to fit over the end of said cylinder to engage said winding mechanism.

2. A map case comprising a cylinder having an inward extension at the end of said cylinder; a head to rest within said cylinder having a groove in its outer edge to engage said extension to prevent lateral displacement; a winding mechanism rotatably mounted in said head to move in one direction only; a spring actuated roller engaged with said winding mechanism; and a cap to fit over the end of said cylinder to engage said winding mechanism.

3. A map case comprising a cylinder having an inward extension at the end of said cylinder; a head to rest within said cylinder having a groove in its outer edge to engage

said extension to prevent lateral displacement; a winding mechanism consisting of a hub mounted in said head and having a rectangular central opening to engage the end of a spring rolling mechanism for the map roller, said hub being provided with a ratchet wheel and a detent mounted on said head to engage said ratchet wheel; a spring actuated roller engaged with said winding mechanism; and a cap to fit over the end of said cylinder to engage said winding mechanism.

4. A map case comprising a cylinder having an inward extension at the end of said cylinder; a head to rest within said cylinder having a groove in its outer edge to engage said extension to prevent lateral displacement; a winding mechanism consisting of a hub mounted in said head and having a rectangular central opening to engage the end of a spring rolling mechanism for the map roller, said hub being provided with a ratchet wheel, and a detent mounted on said head to engage said ratchet wheel; a spring actuated roller engaged with said winding mechanism; a cap to fit over the end of said cylinder to engage said winding mechanism; and hook-like extensions of said winding mechanism to engage said cap.

In witness whereof I have signed my name to these specifications in the presence of two witnesses.

ALBERT SIMPSON SMITH.

Witnesses:

L. E. HICKS,

M. A. CARROLL.