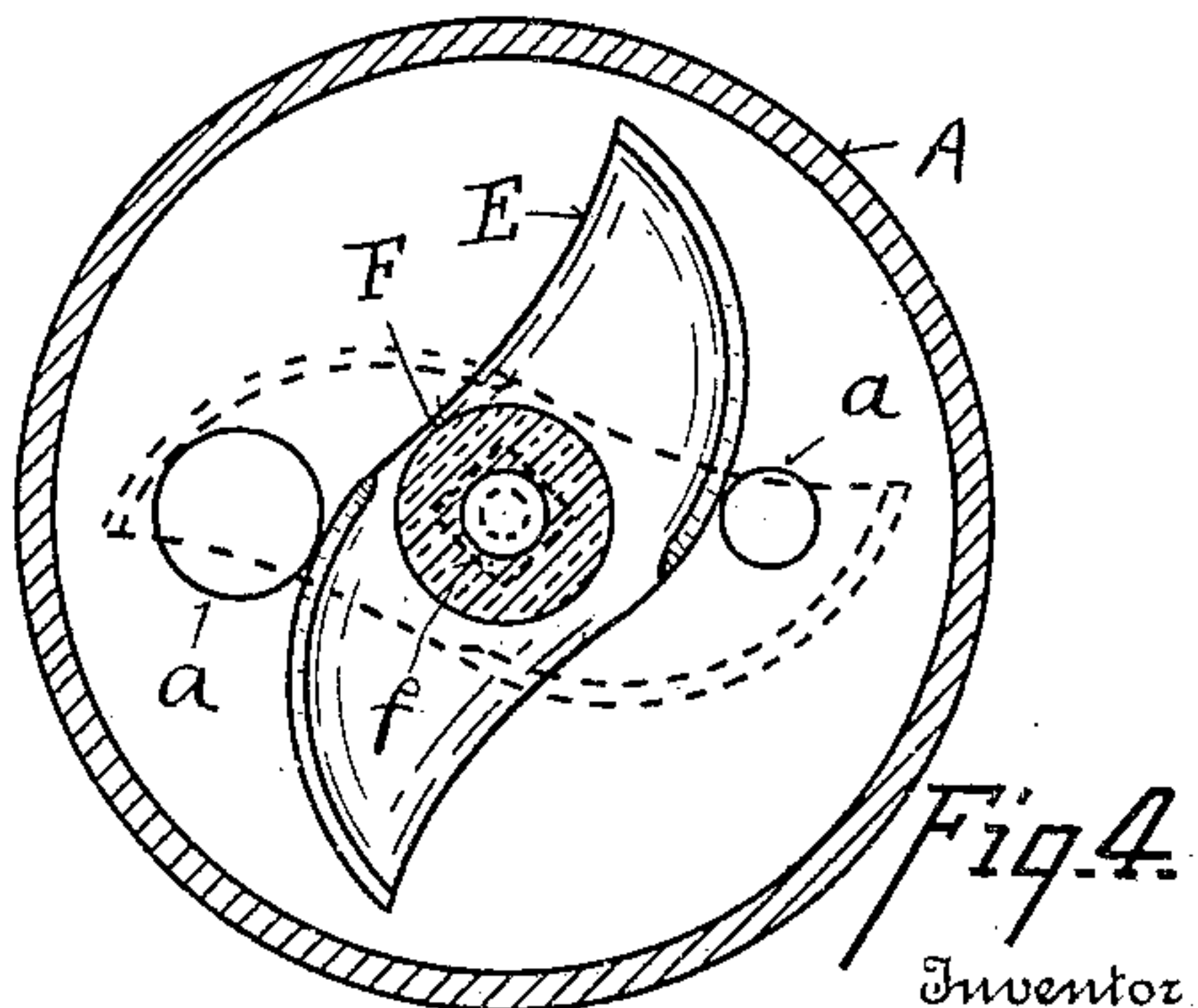
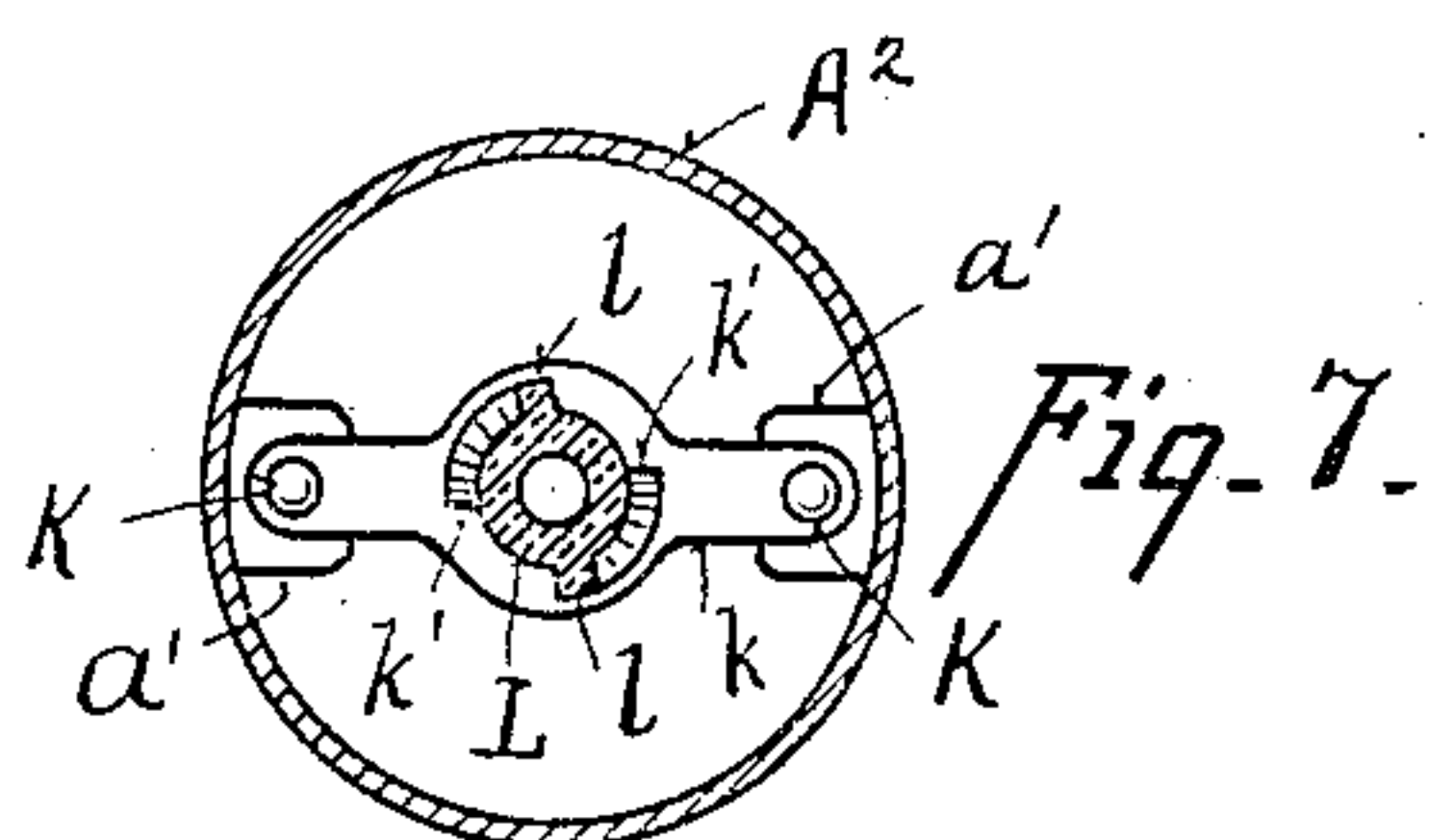
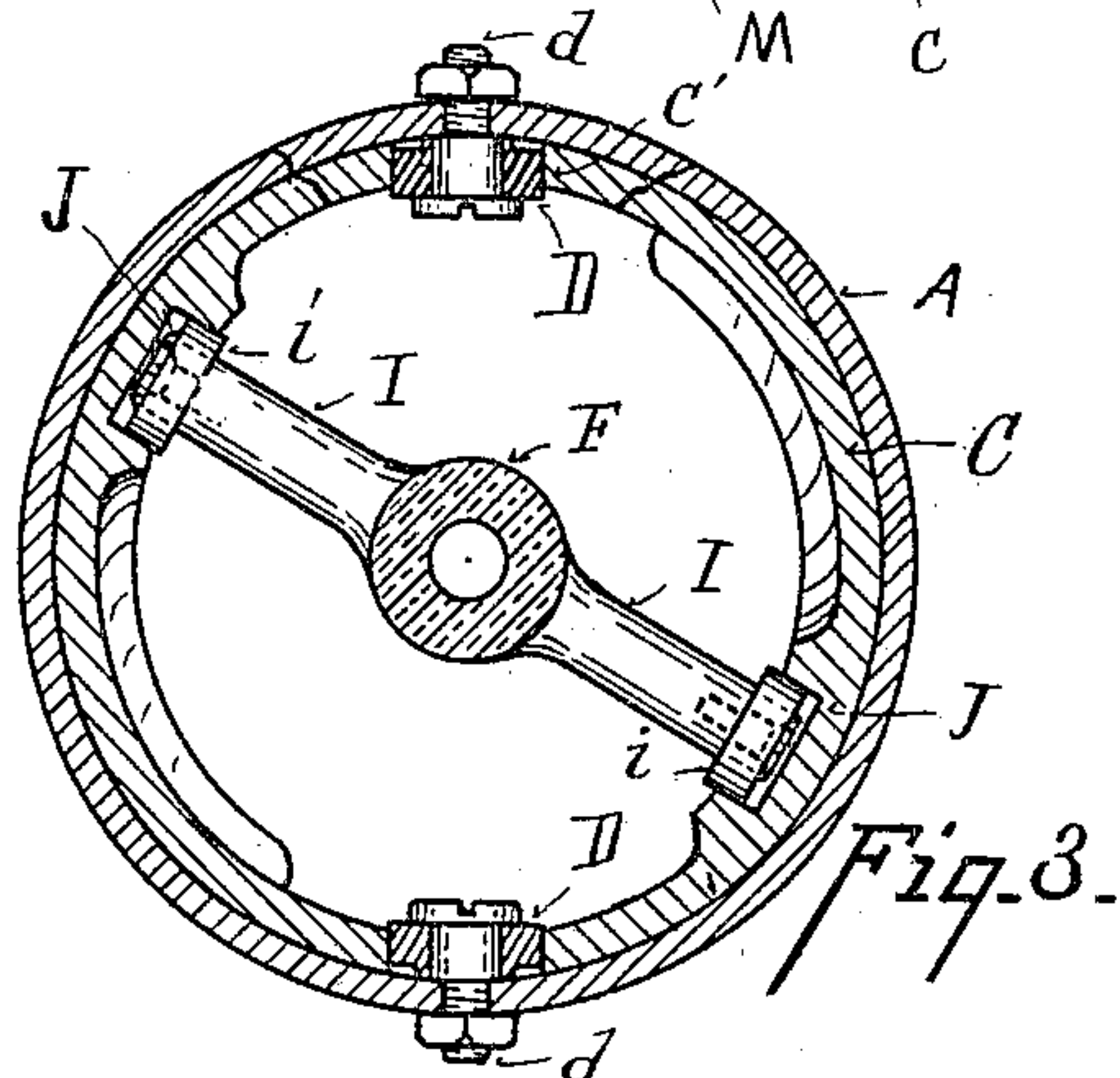
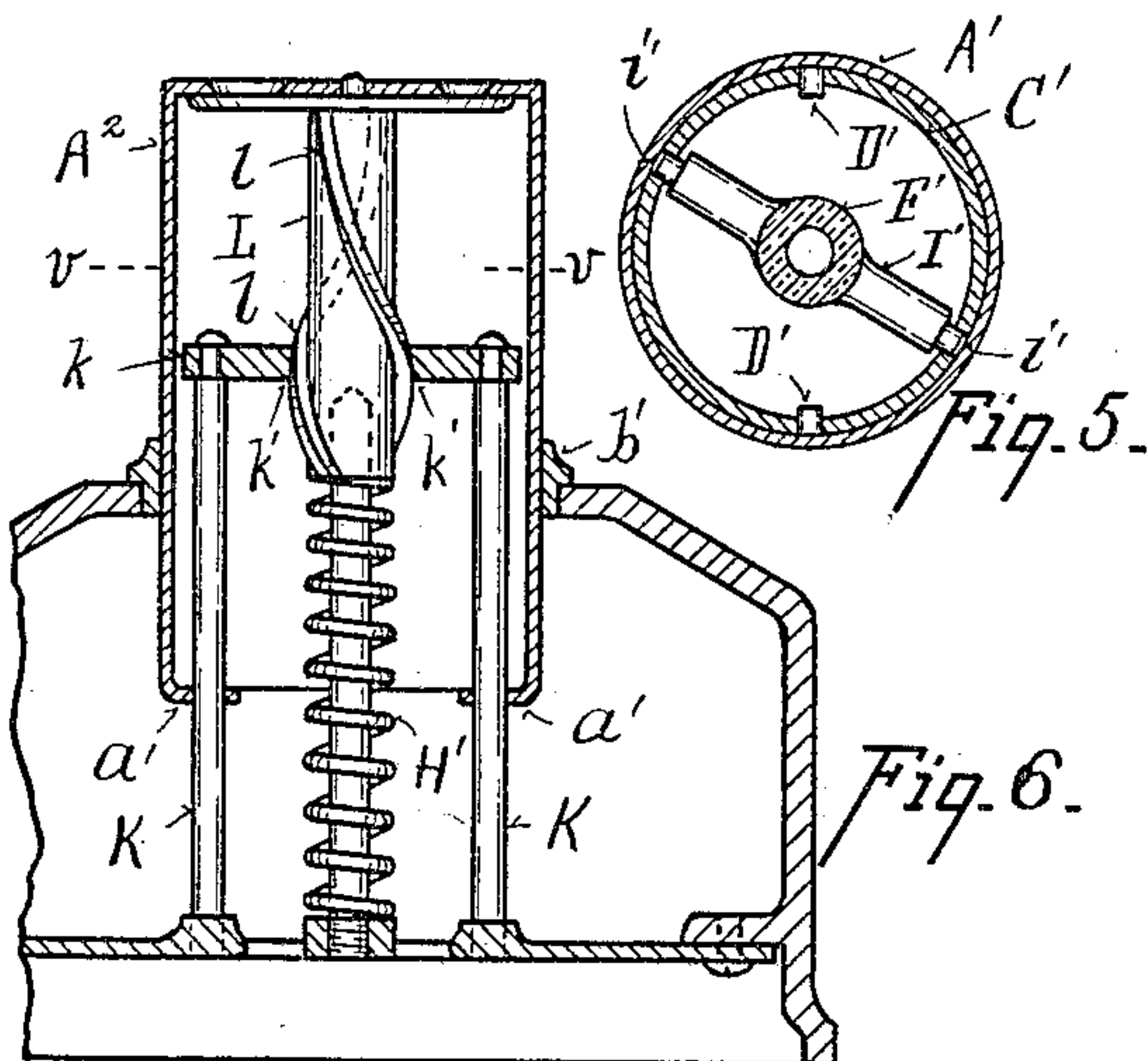
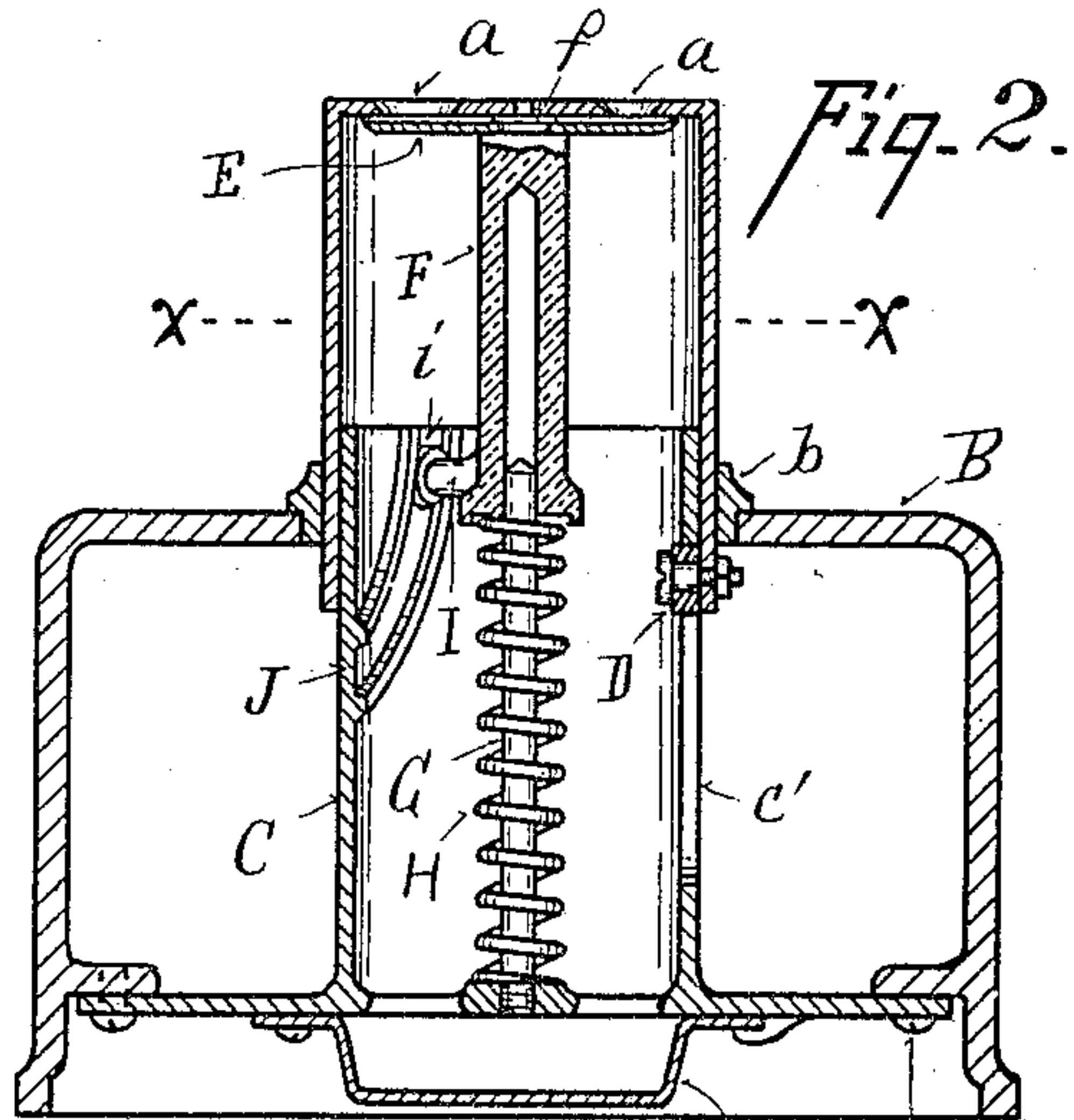
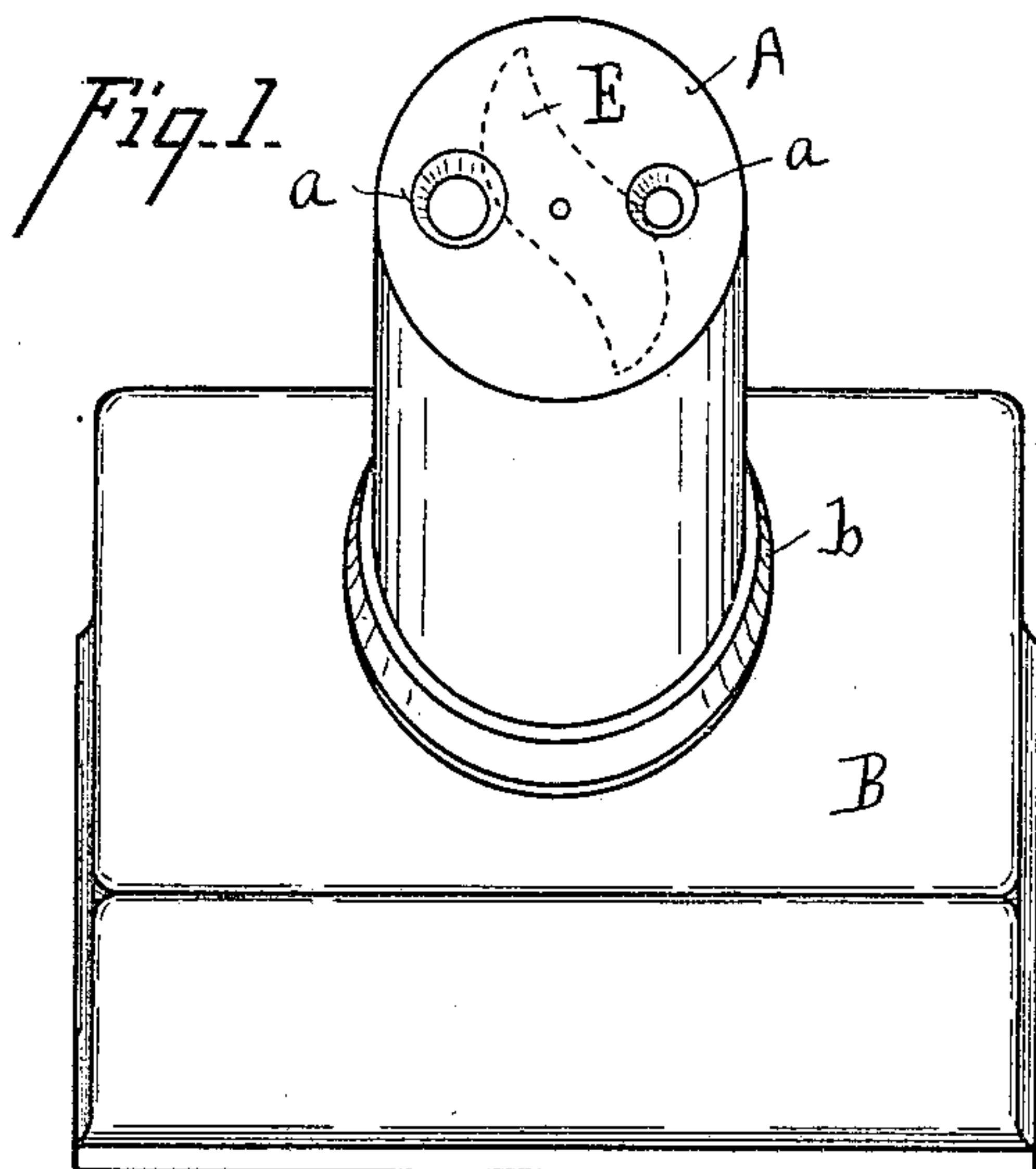


No. 831,533.

PATENTED SEPT. 25, 1906.

E. BRUNHOFF.
CIGAR CUTTER.

APPLICATION FILED APR. 22, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD BRUNHOFF, OF CINCINNATI, OHIO.

CIGAR-CUTTER.

No. 831,533.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed April 22, 1905. Serial No. 256,916.

To all whom it may concern:

Be it known that I, EDWARD BRUNHOFF, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cigar-Cutters, of which the following is a specification.

My invention relates to improvements in cigar-cutters. One of its objects is to provide a cutter in which the vertical depression of the cutter-head actuates the knife to sever the tip.

Another object is to provide simple, reliable, and easily-operated mechanism for actuating the knife.

Another object is to provide a cutter in which only a vertical movement of the cutter-head is employed, thereby avoiding any liability of breaking the cigar-wrapper, due to lateral movement of the cutter-head.

It further consists in certain details of form, combination, and arrangement, all of which will be more fully set forth in the description of the accompanying drawings, in which—

Figure 1 is a perspective view of my improved cutter. Fig. 2 is a central vertical section through the same. Fig. 3 is an enlarged horizontal section looking downward from line *xx* of Fig. 2. Fig. 4 is an enlarged horizontal section on the same line looking upward or toward the knife. Fig. 5 is a view similar to Fig. 3, showing a modification. Fig. 6 is a view similar to Fig. 2, showing another modification. Fig. 7 is a section on line *vv* of Fig. 6.

In the accompanying drawings, Figs. 1 to 4, A represents the cutter-head, provided with one or more tip-holes *a*. B represents the base or frame in which the operative parts are mounted. The cutter-head is supported upon and moves vertically relative to a shell or frame C, which is preferably rigidly secured to the base by screws *c* or other means. The shell C serves as a guide for the movements of the cutter-head. One or more rollers D, journaled on studs *d*, travel in vertical slots *c'* in the shell and serve to prevent the cutter-head from turning or revolving relative to the shell. The rollers D also serve to limit the upward movement of the cutter-head. The knife E is carried by an axle F, journaled at the top in the cutter-head and at its lower end upon a rod G, projecting upward from the base of the shell. A spring H presses against the axle F and serves to lift

and hold the knife against the under side of the cutter-head and to normally hold the cutter-head in the raised position. Cross-arms I project from the axle and are provided with rollers *i*, which travel in spiral or cam grooves J, formed on the shell C, whereby the axle and knife are caused to rotate relative to the cutter-head when the cutter-head is depressed, thereby severing the tip. The knife is preferably concaved on the face adjacent to the cutter-head, so that only the edges of the knife contact with the under face of the cutter-head, thereby insuring a shearing action between the edge of the knife and tip-hole and avoiding any tendency to break the cigar-wrapper. After the tip has been severed the spring H returns the cutter-head to the raised position and the knife to position ready for another cut. By having the cutter-head move vertically there is less tendency to break the wrapper than where the cutter-head has a lateral movement, and by securing a sufficient vertical movement of the head the strain and leverage required to operate the knife and head are so reduced as to obviate the tendency to injure the wrapper. The knife is preferably seated upon a polygonal shoulder *f* at the upper end of the axle F. M represents a receptacle to receive the severed tips, which is preferably pivoted at one side, so that it may be shifted on its pivot when desired to remove the accumulated tips. A bushing *b* is preferably mounted upon the frame B about the cutter-head to serve as an additional support therefor.

In the modification Fig. 5 the rollers D of Fig. 3 are dispensed with, and pins D', carried by the cutter-head A', travel in vertical slots in the shell C', while pins *i'* of the cross-arms I' of the axle F' travel in the spiral grooves or slots J'.

In the modification Figs. 6 and 7 the cutter-head A² has inwardly-turned ears *a'*, through which pass uprights K, the cutter-head being held and guided vertically by said uprights and the bushing *b'* of the frame B'. A cross-plate *k* is supported at the top of the uprights K and has a central opening, through which the knife-axle L passes. *l* represents spiral ribs on the axle which engage corresponding recesses *k'* in the plate *k* to rotate the knife and axle L when the cutter-head is depressed. The spring H' serves to return the cutter-head and knife to normal position.

The mechanism herein specified is capable

of considerable modification without departing from the principle of my invention.

Having described my invention, what I claim is—

- 5 1. In a cigar-cutter, a frame, a depressible cutter-head located above said frame, and provided with a tip-hole, a knife pivoted to the cutter-head, a knife-stem projecting down into the frame, a plurality of interengag-
10 ing cam-faces symmetrically arranged upon the knife-stem and frame to rotate the knife when the cutter-head is depressed, and means for returning the cutter-head and knife to normal position.
- 15 2. In a cigar-cutter, a frame, a depressible cutter-head provided with a tip-hole and located above the frame, a knife having a concave face adjacent to the cutter-head, said knife being pivoted to the cutter-head and
20 provided with a stem projecting down into the frame, a plurality of interengaging cam-faces symmetrically arranged upon by the knife-stem and frame to rotate the knife when the cutter-head is depressed, and a spring to
25 hold the knife in contact with the cutter-head and to return the cutter-head and knife to normal position.
- 30 3. In a cigar-cutter, a frame, a cutter-head located above the frame, provided with a tip-hole and adapted to move vertically relative to the frame, a knife, a knife-axle pivoted to the cutter-head at one end and projecting downward into the frame and telescoping with a
stud on the frame at the opposite end, inter-
35 engaging cam-faces carried by the knife-axle and frame to rotate the knife when the cutter-head is depressed, and a spring pressing endwise on the knife-axle to hold the knife in contact with the cutter-head and to re-
40 turn the cutter-head and knife to normal position.
- 45 4. In a cigar-cutter, a frame, a cutter-head located above the frame, provided with a tip-hole and adapted to move vertically relative to the frame, guides on the frame to guide the

movements of the cutter-head and prevent it from moving horizontally or laterally, a knife, a knife-axle pivoted at one end to the cutter-head and at the opposite end upon a stud with which it telescopes, interengaging cam-
50 faces carried by the axle and the frame to move the knife when the cutter-head is depressed, and a spring acting endwise on the axle to hold the knife in contact with the cutter-head, and to return the cutter-head
55 and knife to normal position.

5. In a cigar-cutter, a frame, a cutter-head located above the frame, provided with a tip-hole and adapted to move vertically relative to the frame, rollers carried by the cutter-
60 head traveling in vertical guides in the frame to prevent rotation of the cutter-head, a knife, a knife-axle projecting downward into the frame and carrying rollers engaging cam-grooves on the frame to rotate the knife when
65 the cutter-head is depressed, and means for returning the cutter-head and knife to normal position.

6. In a cigar-cutter, a frame, a depressible cutter-head located above the frame, pro-
70 vided with a tip-hole, and adapted to move vertically relative to the frame, interengaging guides on the frame and cutter-head to prevent other than vertical movement of the cutter-head, a knife, a knife-axle pivoted to
75 the cutter-head at one end and having its opposite end projecting downwardly into the frame and provided with a telescopic journal, interengaging cam-faces carried by the knife-axle and frame to rotate the knife when the
80 cutter-head is depressed, and means for returning the cutter-head and knife to normal position.

In testimony whereof I have affixed my signature in presence of two witnesses.

EDWARD BRUNHOFF.

Witnesses:

A. McCORMACK,
C. W. MILES.

It is hereby certified that in Letters Patent No. 831,533, granted September 25, 1906, upon the application of Edward Brunhoff, of Cincinnati, Ohio, for an improvement in "Cigar-Cutters," an error appears in the printed specification requiring correction, as follows: In line 22, page 2, the word "by" should be stricken out; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 16th day of October, A. D., 1906.

[SEAL.]

F. I. ALLEN,
Commissioner of Patents.