

No. 674,972.

Patented May 28, 1901.

C. J. LEHMAN & E. BRUNHOFF.
AUTOMATIC CIGAR TIP CUTTER.

(No Model.)

(Application filed Apr. 20, 1900.)

2 Sheets—Sheet 1.

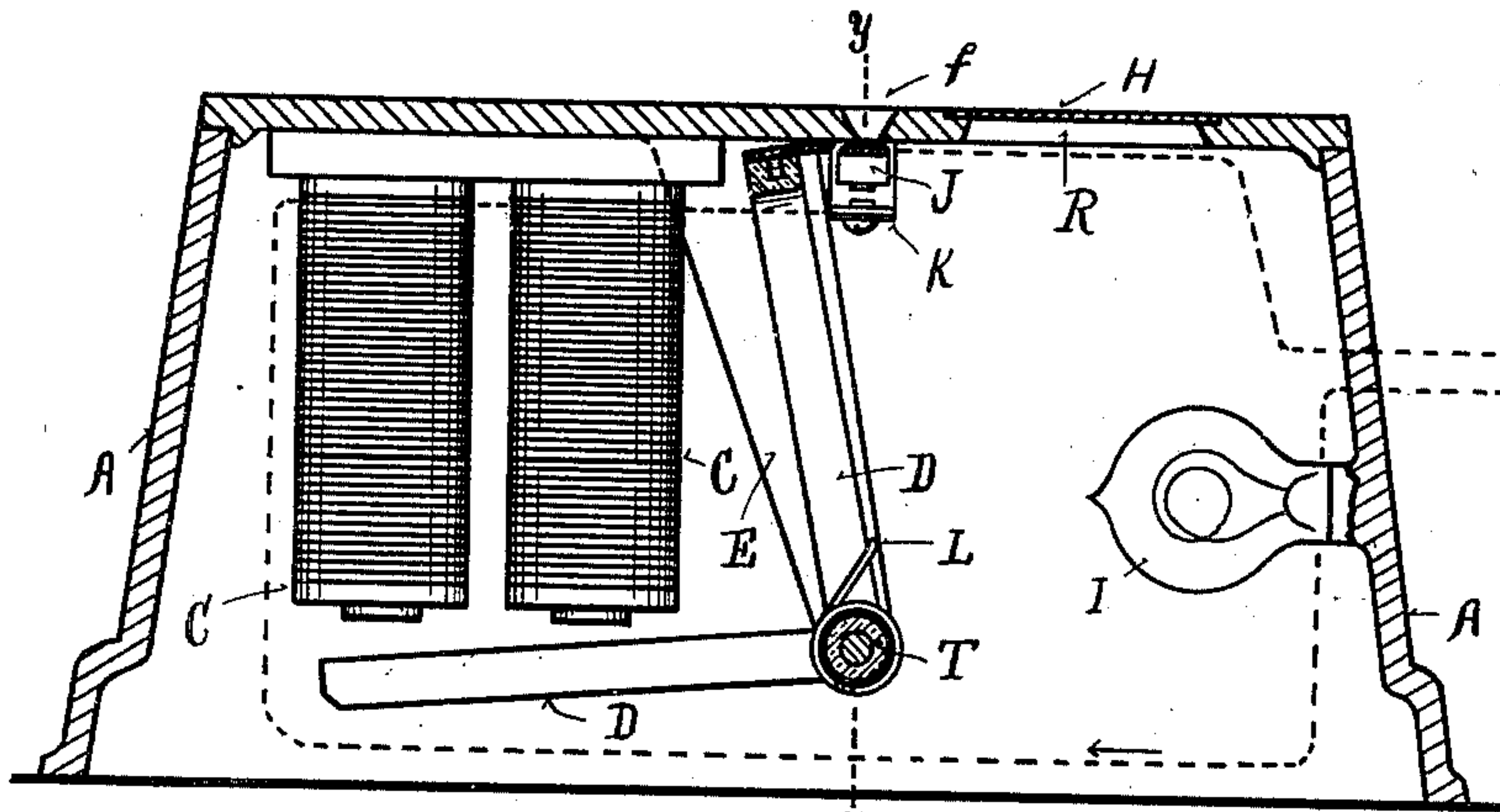


Fig. 1.

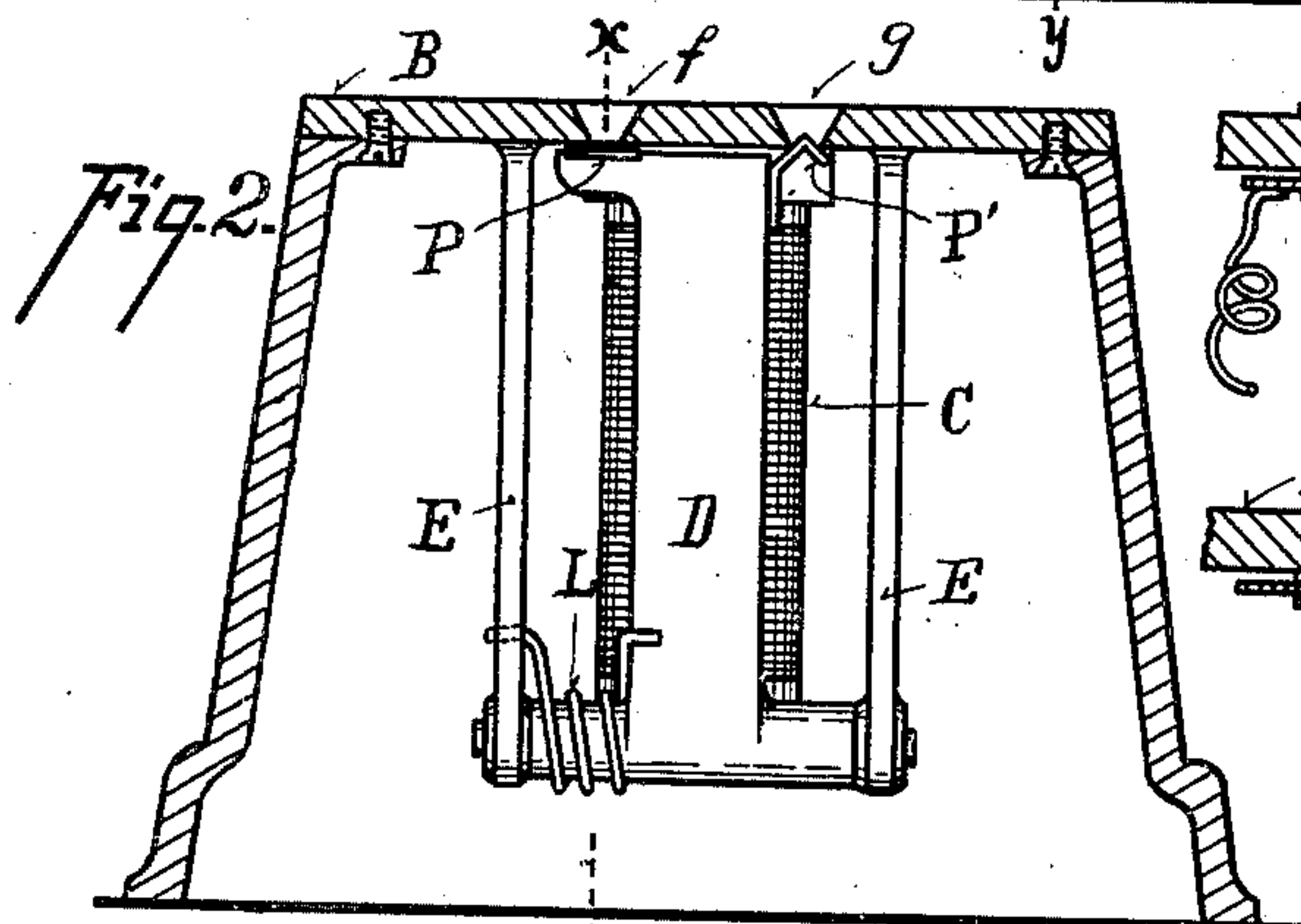


Fig. 2.

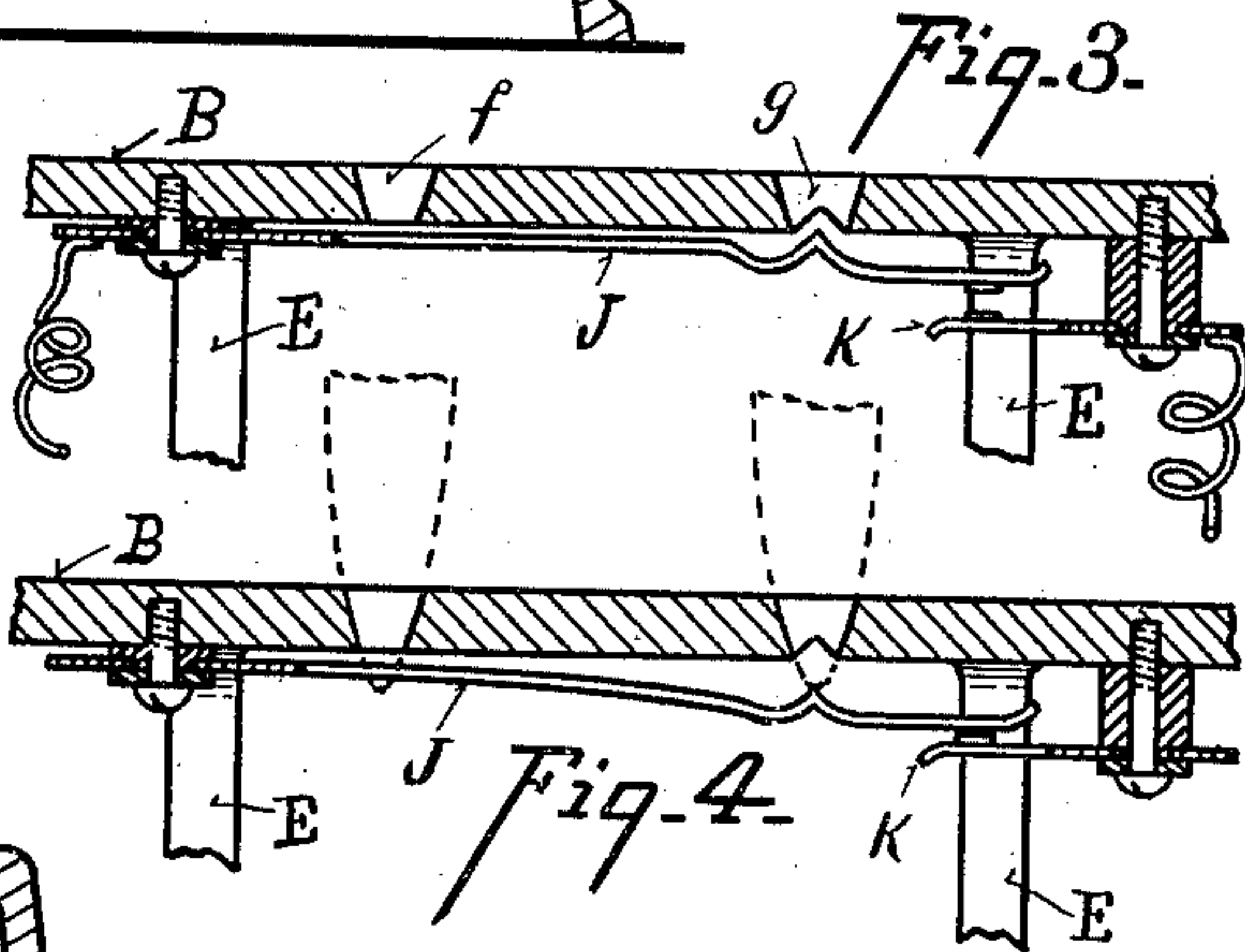


Fig. 3.

Fig. 4.

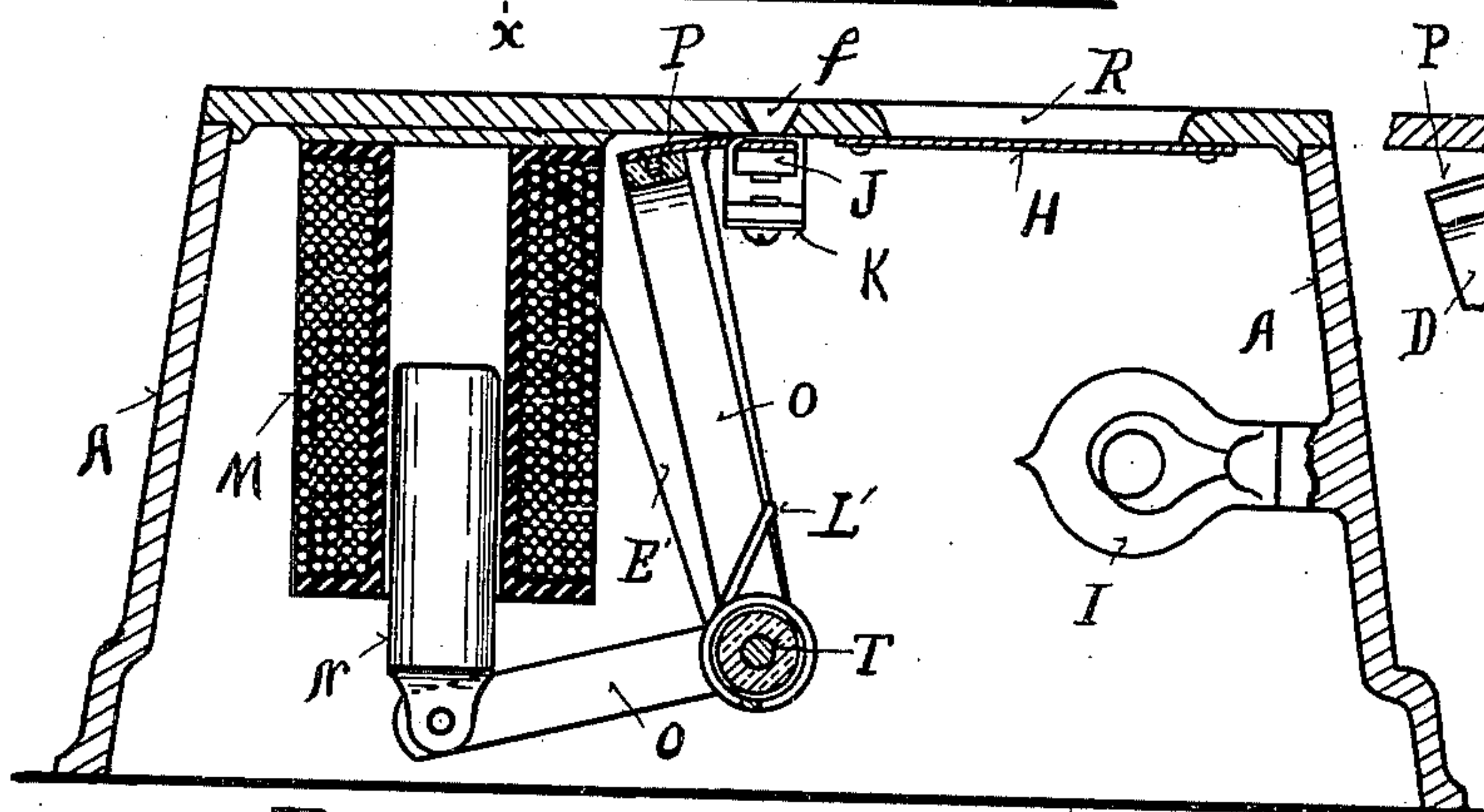


Fig. 5.

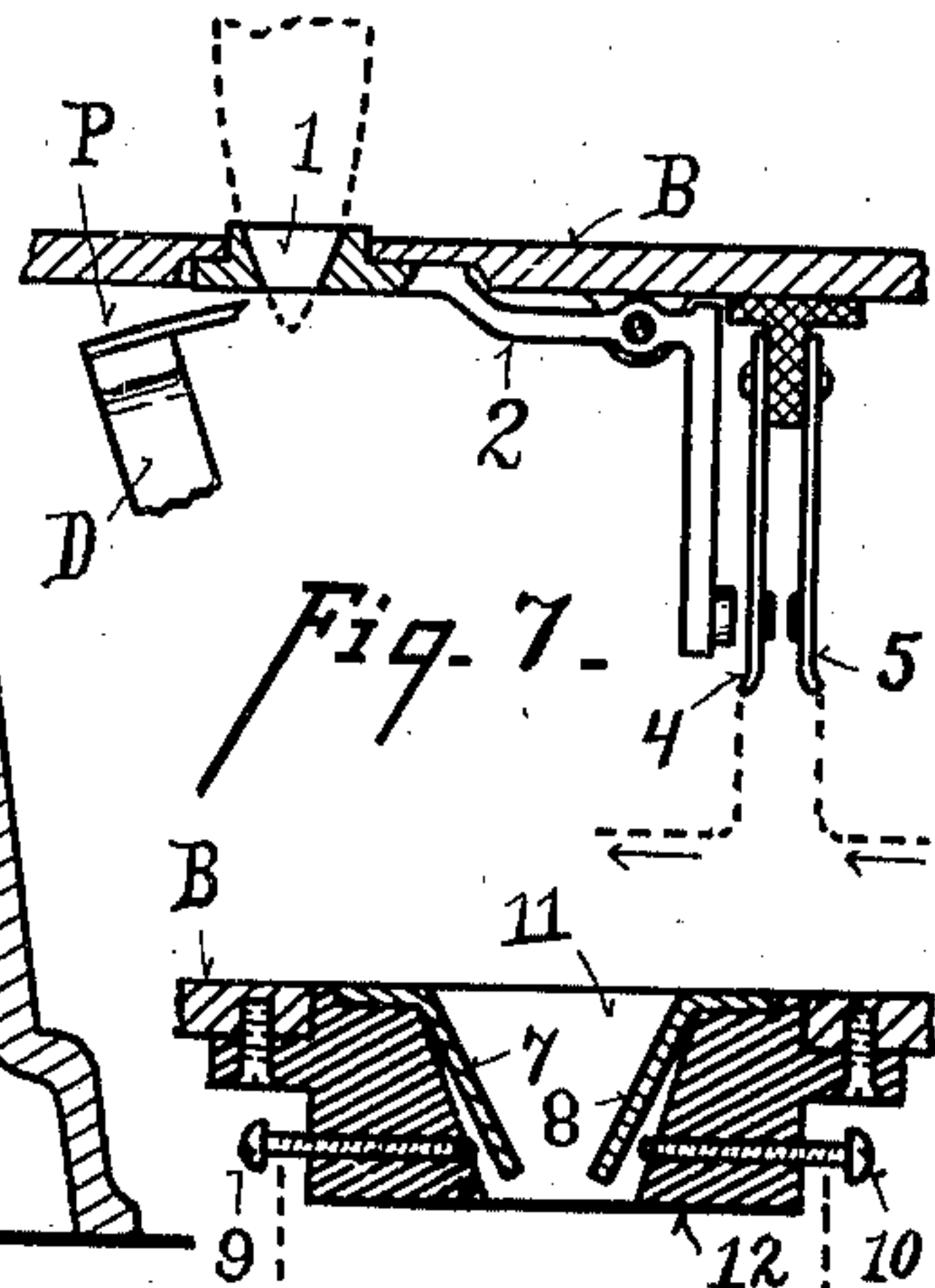


Fig. 7.

Fig. 6.

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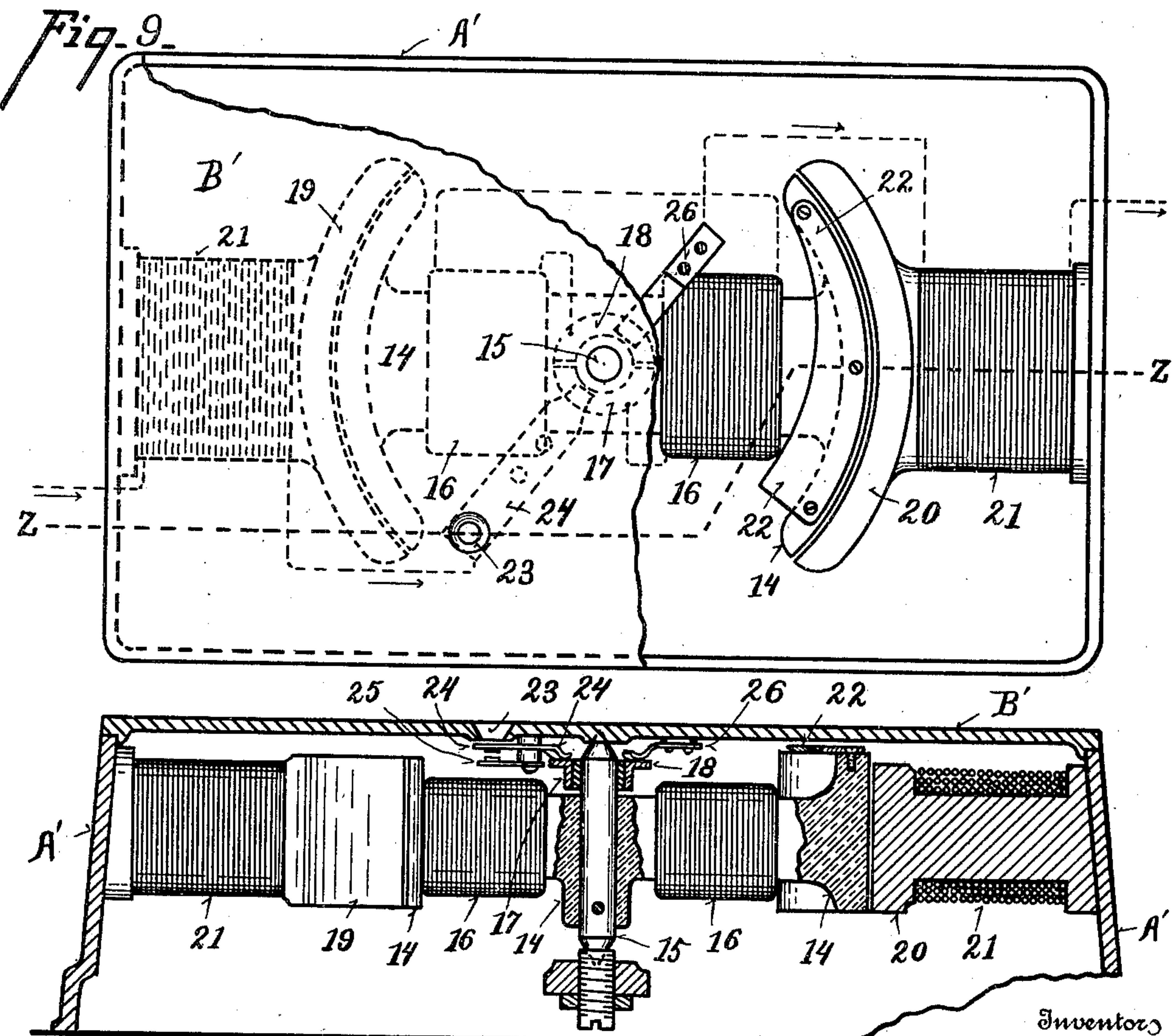
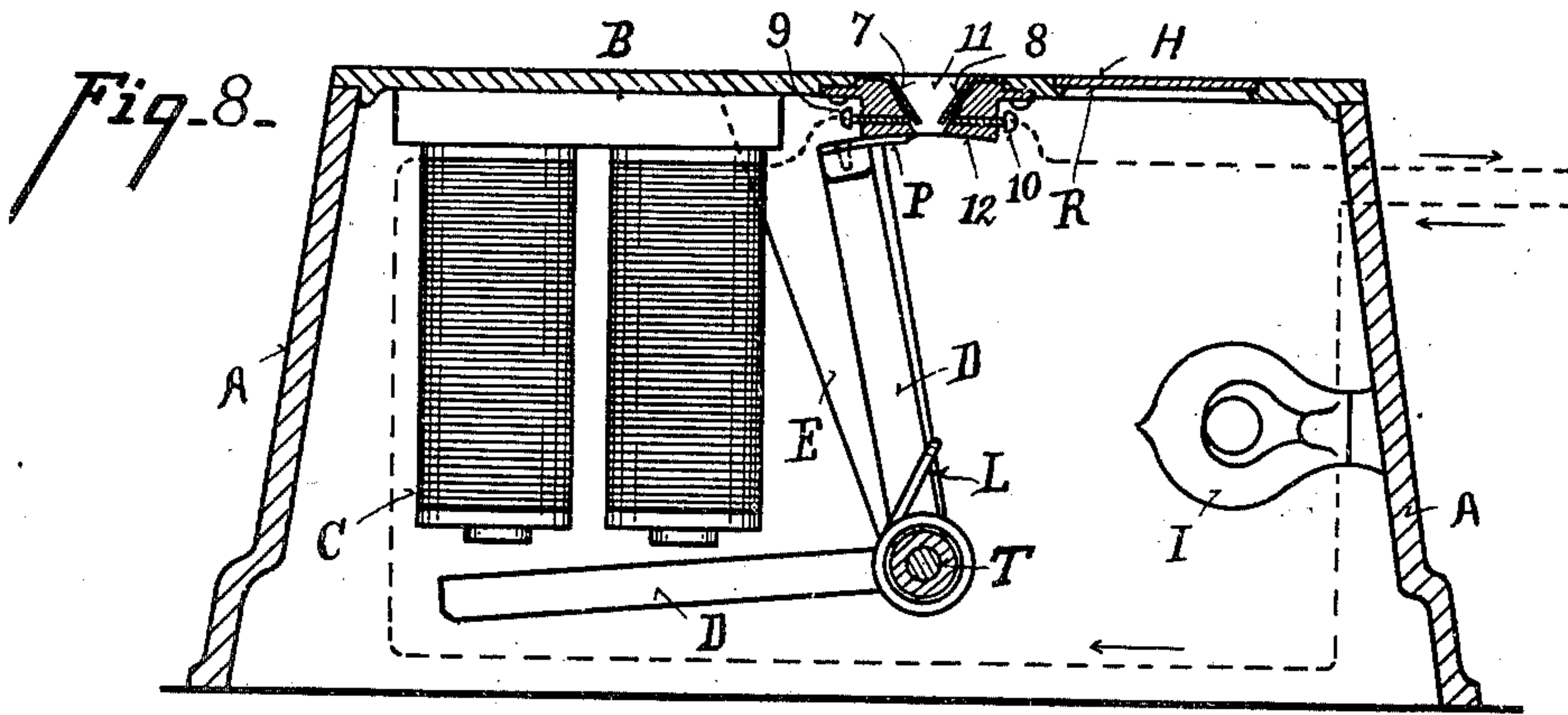
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2 Sheets—Sheet 2.



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Fig. 10.

Charles J. Lehman & Edward Brunhoff
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UNITED STATES PATENT OFFICE.

CHARLES J. LEHMAN AND EDWARD BRUNHOFF, OF HAMILTON, OHIO, ASSIGNORS TO THE BRUNHOFF MANUFACTURING COMPANY, OF SAME PLACE.

AUTOMATIC CIGAR-TIP CUTTER.

SPECIFICATION forming part of Letters Patent No. 674,972, dated May 28, 1901.

Application filed April 20, 1900. Serial No. 13,565. (No model.)

To all whom it may concern:

Be it known that we, CHARLES J. LEHMAN and EDWARD BRUNHOFF, citizens of the United States, residing at Hamilton, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Automatic Cigar-Tip Cutters; and we do hereby 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.

Our invention relates to improvements in automatic cigar-tip cutters. One of its objects is to provide more delicate actuating mechanism, thereby preventing possible injury to the cigar-tip in starting the cutter, which is likely to occur with the cutters heretofore in use.

Another object is to provide improved electrically-actuated cutting mechanism.

Another object is to provide novel combined advertising and cigar-cutting mechanism.

Another object is to provide improved actuating mechanism which cannot be readily actuated by matches, toothpicks, and like articles instead of cigars, all of which will be more fully set forth in the description of the accompanying drawings, in which—

Figure 1 is a vertical section through our improved cutter on line *x x*, Fig. 2. Fig. 2 is a section through the same on line *y y*, Fig. 1, with the releasing or actuating mechanism omitted. Fig. 3 is a sectional detail on line *y y*, Fig. 1, showing one form of releasing or actuating mechanism in normal position. Fig. 4 is a similar view showing the parts in the act of being tripped by the cigar. Fig. 5 is a view similar to Fig. 1, showing a modification. Fig. 6 shows the preferred form of releasing or actuating mechanism. Fig. 7 shows another form of releasing or actuating mechanism. Fig. 8 shows the preferred form of releasing mechanism in position in the cutter. Fig. 9 is a top plan view of another modification in which a revolving instead of an oscillating armature is employed. Fig. 10 is a vertical section on line *z z*, Fig. 9.

A represents the frame of the cutter, provided with a detachable top plate B. To the under side of this plate is secured the electric actuating mechanism, preferably an electro-

magnet C, actuating when energized an armature D, which is pivoted upon a center T, supported in ears E, preferably projecting down from the top plate. This armature-lever carries one or more knives P P', which are caused when the magnet is energized to pass across in front of the tip-holes *f g* in the top plate and sever so much of the cigar-tip as projects through the tip-hole. We preferably provide two knives opposite separate tip-holes, one, P, for making a straight cut across the tip, and the other, P', for making a V-shaped cut.

The top plate and the side plates, if desired, are provided with open-work letters or designs R, preferably covered with a semitransparent substance H. The interior of the cutter is temporarily illuminated by means of the lamp I each time a cigar-tip is severed, which brings the advertisement on the top of the cutter into prominence and directs attention thereto.

In order to actuate the cutter and illuminate the advertisement, any one of several forms of mechanism may be employed.

In Figs. 3 and 4 we have shown a spring electrical contact-lever J, actuated by the insertion of the cigar-tip to make electrical contact with the arm K, thereby completing the circuit through the magnets and lamp to actuate the cutter, which in turn cuts off the tip, thereby automatically releasing the arm J, which springs back into the normal position, Fig. 3, breaking the circuit. The weight of the armature returns it to normal position ready to cut another tip. A light spring L may also be employed to insure the return of the armature to position, if desired.

In the preferred form, Figs. 6 and 8, the spring-arms 7 and 8 are simultaneously forced in contact with the points of the screws 9 and 10 by the introduction of the cigar into the tip-hole 11, thereby completing the electrical circuit and actuating the knife. The block 12 is of insulating material secured to the top plate B. The arms 7 and 8 are in electrical contact with each other, so that when the cigar is introduced the current passes from the screw 10, through the arm 8, to the arm 7 and thence to the screw 9 and through the balance of the circuit. This form is not read-

ily tripped by matches, toothpicks, and similar articles and is regarded as the preferred form.

In the modification Fig. 7 the tip-hole 1 is located in the end of a pivoted lever 2, which is pivoted in ears to the top plate. The cigar when pressed into the tip-hole depresses the end of lever 2 and causes the opposite end thereof to press the contact-arm 4 against the arm 5, and thereby make electrical contact.

In each of these forms the pressure required from the cigar can be made so slight as to preclude any damage being done to the cigar tip or wrapper in operating the cutter and at the same time secure a reliable and positive cigar-cutter.

In the modification shown in Fig. 5 we have illustrated an electrical solenoid M, acting upon an iron core N, which is hinged to the crank-arm O, carrying the knives. E' represents the supporting-ears, and L' the spring.

In the modification Figs. 9 and 10, A' represents the frame, and B' the top plate, which is shown partly broken away in Fig. 9 to show the mechanism. 14 represents a pivoted armature secured to the shaft 15, which is pivoted to the frame, so as to revolve in a horizontal plane. The arms of the armature are wound with coils 16 of insulated wire, the ends of which are respectively connected to the sections 17 18 of the commutator-ring. 19 20 represent field-pieces, which may be wound with coils 21 or not, as desired. These field-pieces are preferably secured to or made integral with the frame A'. 22 represents a knife secured to the armature, so as to pass across beneath the tip-hole 23 as the armature revolves to sever the cigar-tip. 24 represents a spring contact-arm, one end of which rests upon the commutator-ring and the other end extends beneath the tip-hole, so as to be depressed by the cigar-tip. 25 represents a spring-arm connected with the source of electricity and extending beneath the arm 24, so as to contact therewith when the arm 24 is depressed by the cigar-tip. This conveys the current through the arm 24 to the commutator-ring, thence through the coils 16 on the armature, and thence through the opposite section of the commutator-ring and spring-arm 26 to the return-wire. When coils are employed on the field-pieces, they are also included in the electrical circuit, as shown in Fig. 9. In opera-

tion the cigar-tip depresses the arm 24 into contact with arm 25, causing the armature to revolve through nearly a complete circle when the knife 22 cuts off the cigar-tip, allowing the arm 24 to spring back and break the electric circuit, when the armature stops in position to be operated again. The armature ordinarily stops in about the position shown in Fig. 9. A light spring-lever may, however, be arranged to bear upon the armature at this point of its revolution, if desired, to assist in stopping the armature as soon as it has severed the tip.

What we claim is—

1. In an automatic cigar-tip cutter a knife adapted to move across the tip-hole to sever the tip; electrically-actuated mechanism for moving the knife across the tip-hole; and an electric contact adapted to be moved by the introduction of the cigar into the tip-hole to actuate the knife.

2. In an automatic cigar-tip cutter a knife adapted to be moved across the tip-hole; an electrically-actuated mechanism adapted to move the knife across the tip-hole; a spring contact-arm adapted to be moved by the introduction of the cigar into the tip-hole, to close the electrical circuit and actuate the knife, substantially as specified.

3. In an automatic cigar-tip cutter a knife adapted to be moved across the tip-hole; an electrically-actuated mechanism adapted to move the knife across the tip-hole; two contact-arms adapted to be simultaneously moved by the introduction of the cigar into the tip-hole, and coacting to make contact and complete the circuit to actuate the knife, substantially as specified.

4. In an automatic cigar-tip cutter a knife adapted to be moved across the tip-hole; an electrically-actuated mechanism adapted to move the knife across the tip-hole; a plurality of spring contact-arms adapted to be moved by the introduction of the cigar into the tip-hole, to coact to close the electrical circuit and actuate the knife, substantially as specified.

In testimony whereof we have affixed our signatures in presence of two witnesses.

CHARLES J. LEHMAN.
EDWARD BRUNHOFF.

Witnesses:

E. A. BELDEN,
JAMES FITTON.