

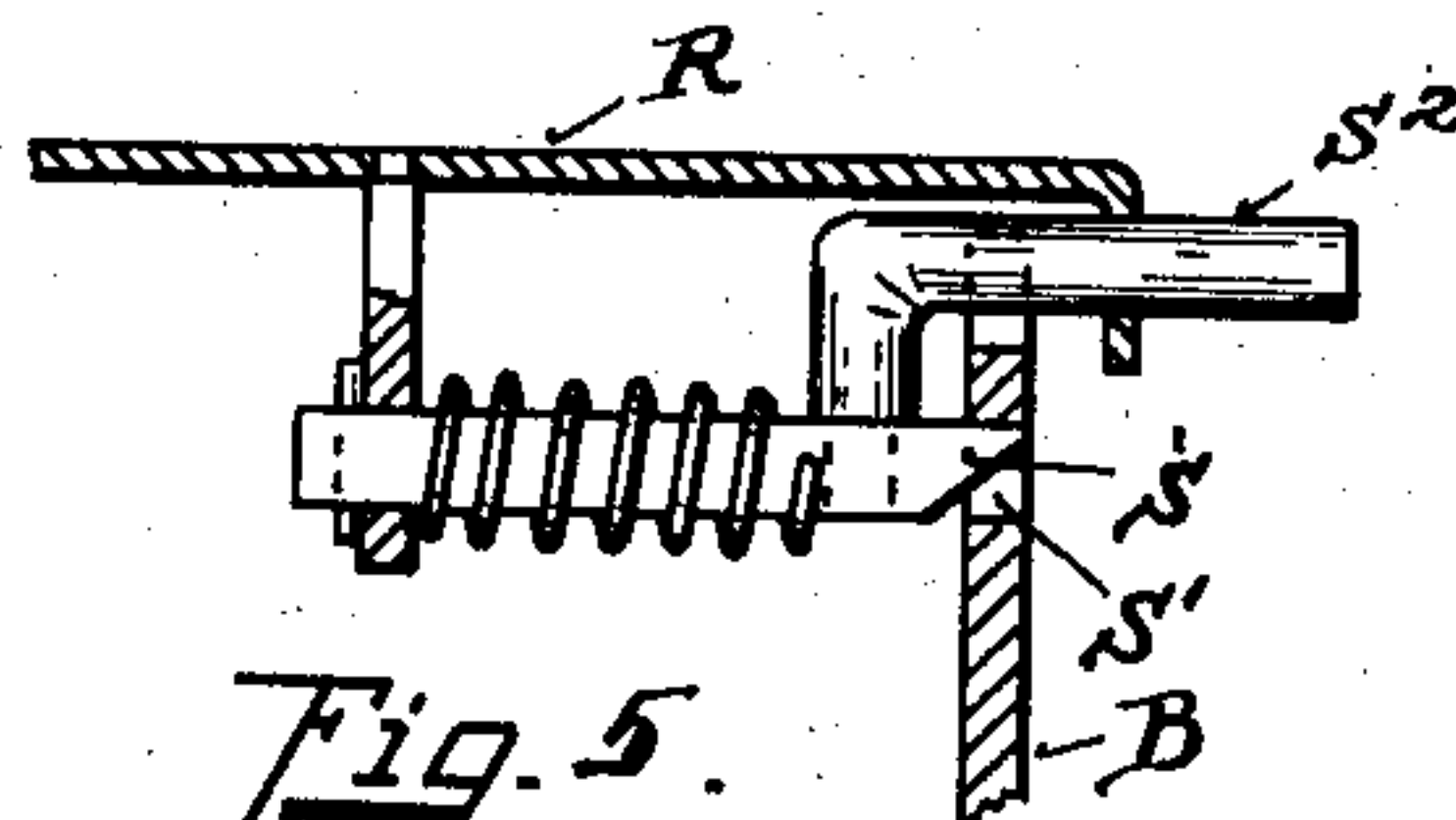
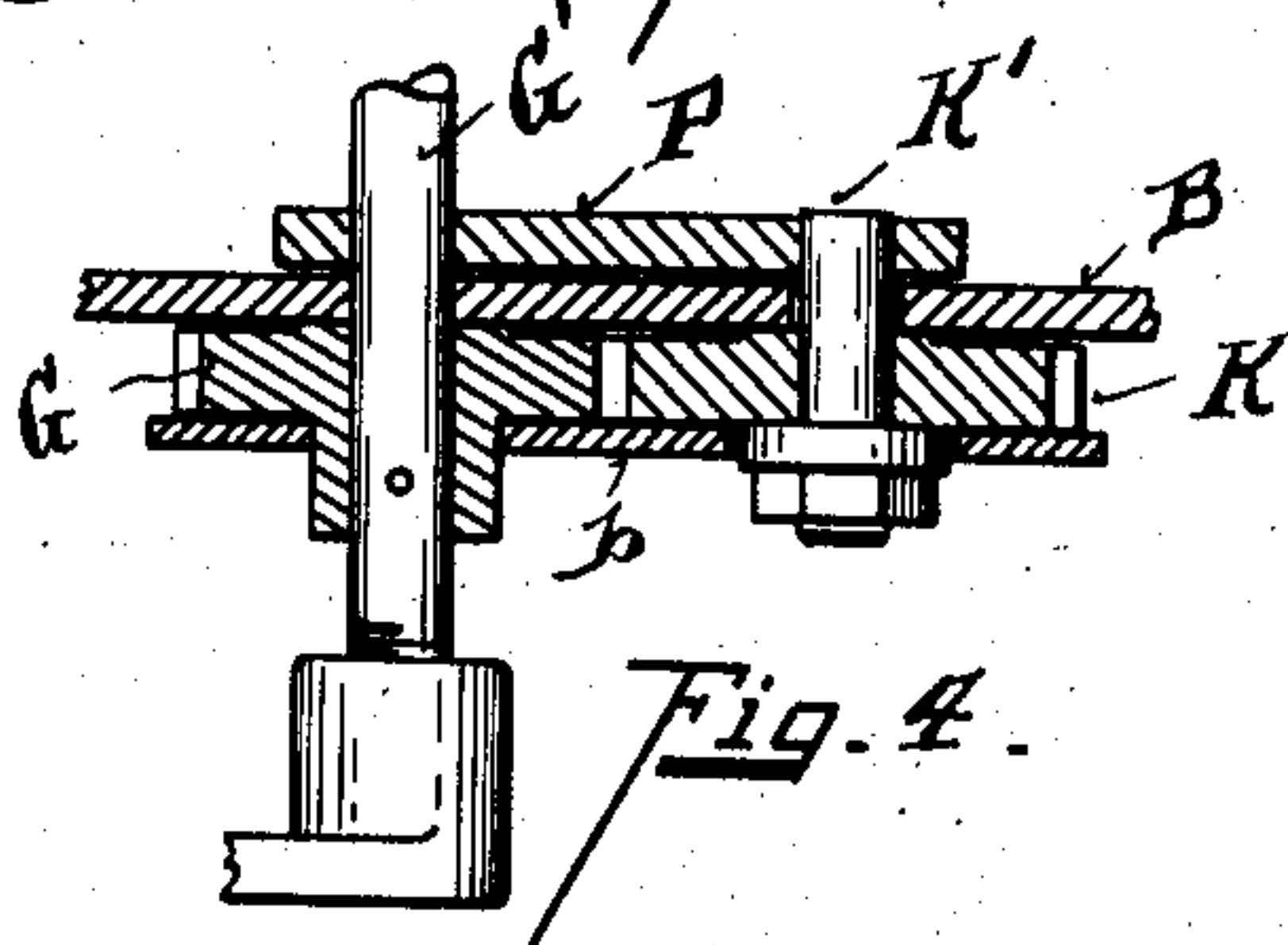
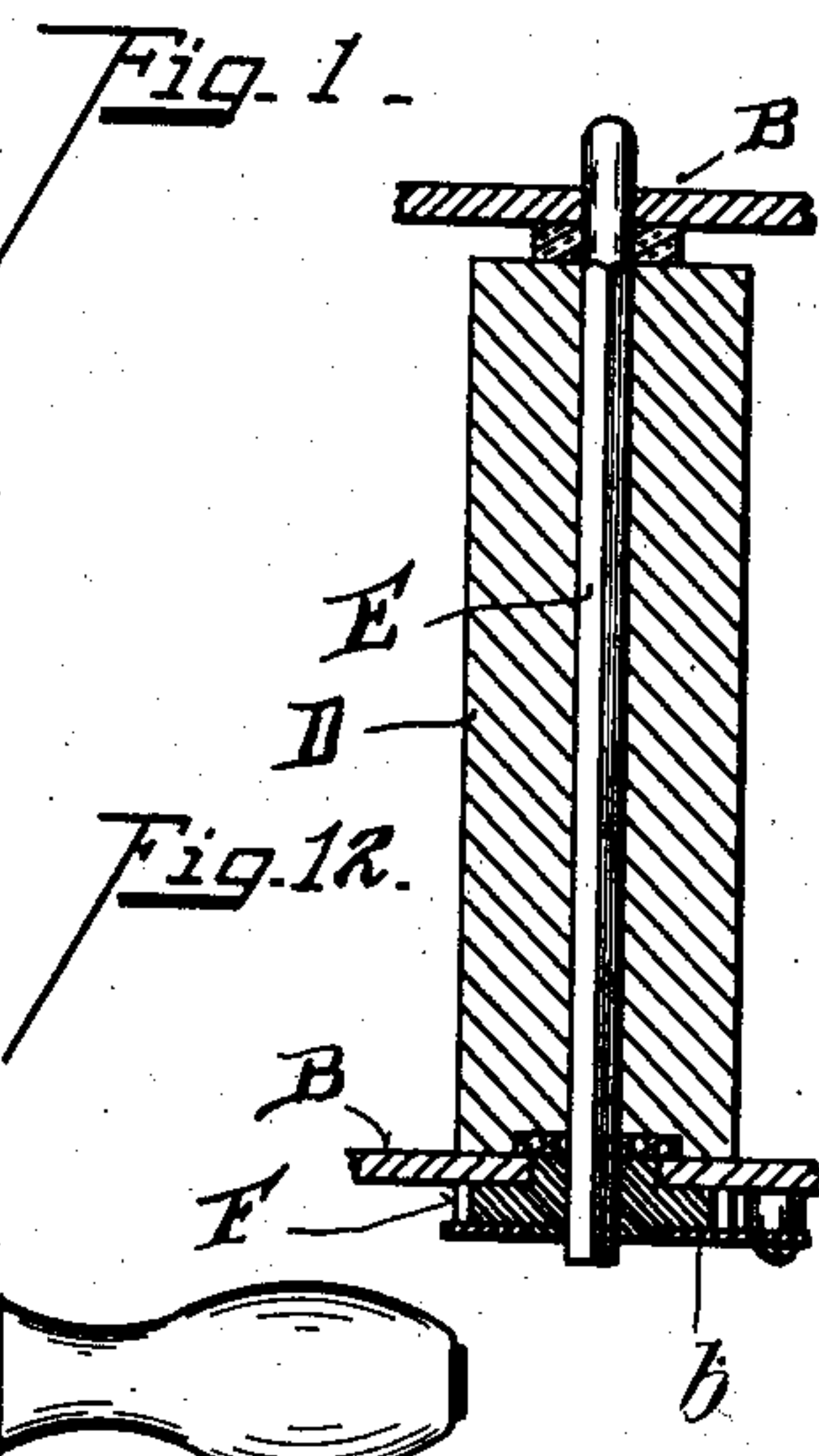
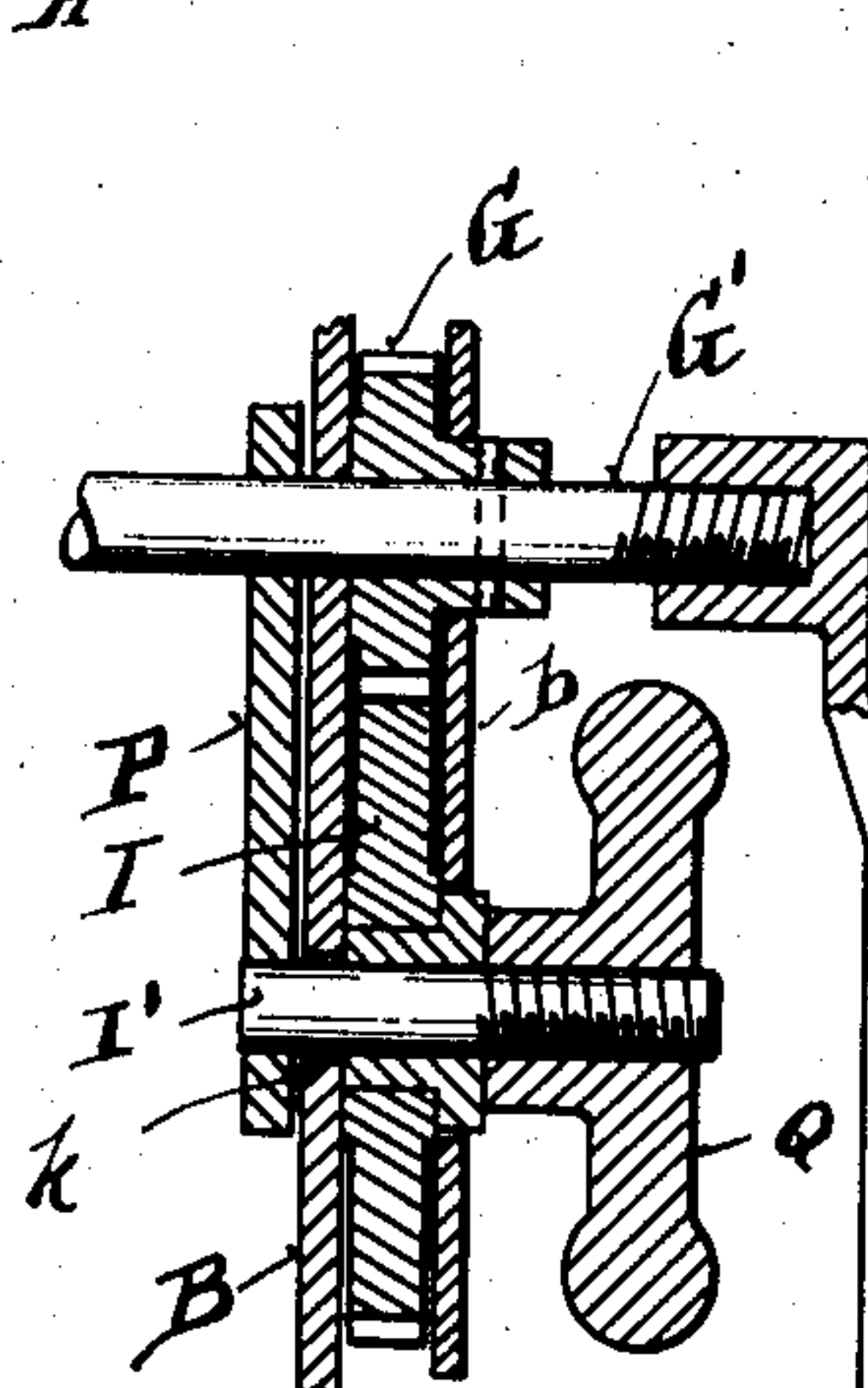
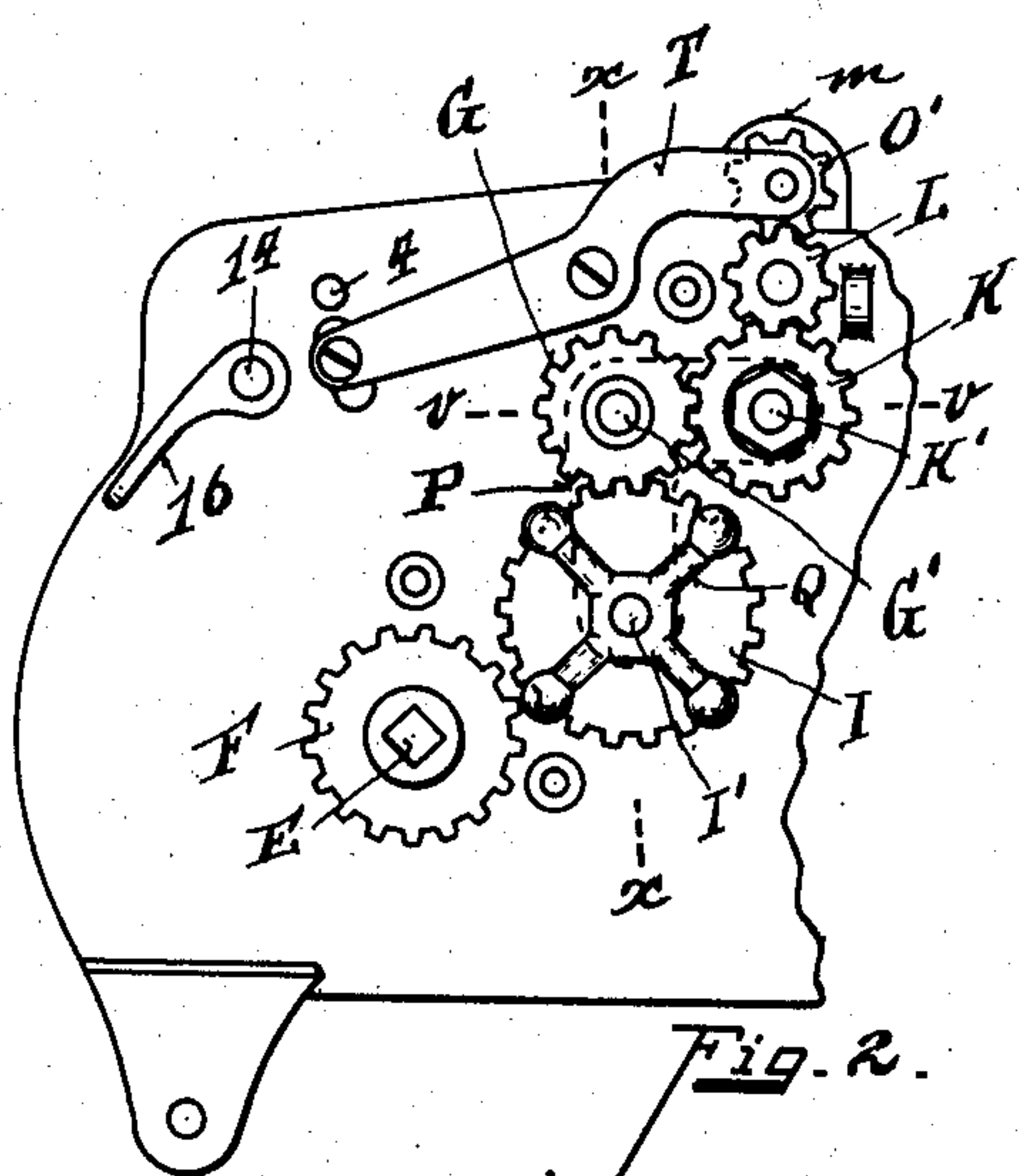
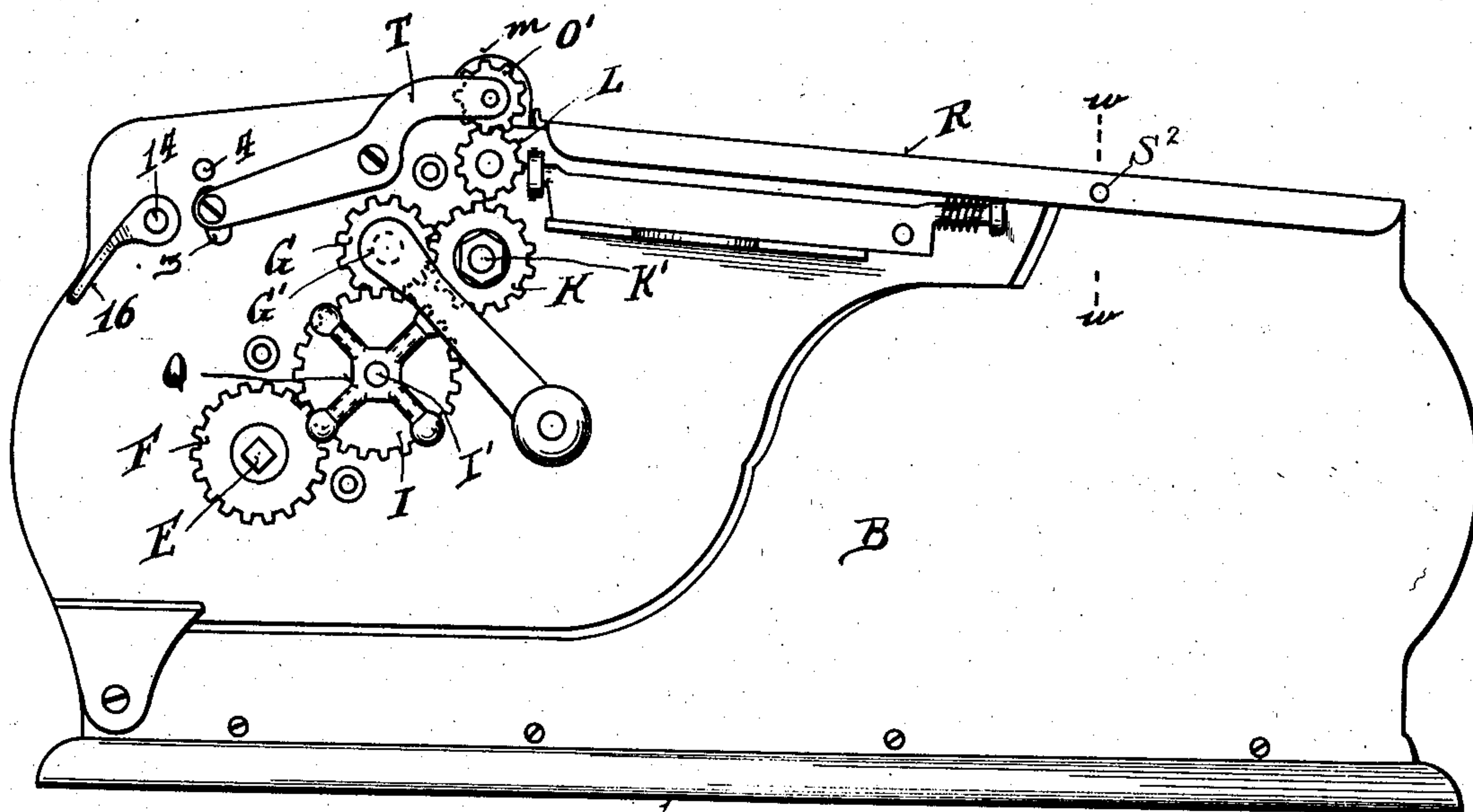
No. 824,185.

PATENTED JUNE 26, 1906.

A. KRAUTH.
AUTOGRAPHIC REGISTER.

APPLICATION FILED AUG. 21, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

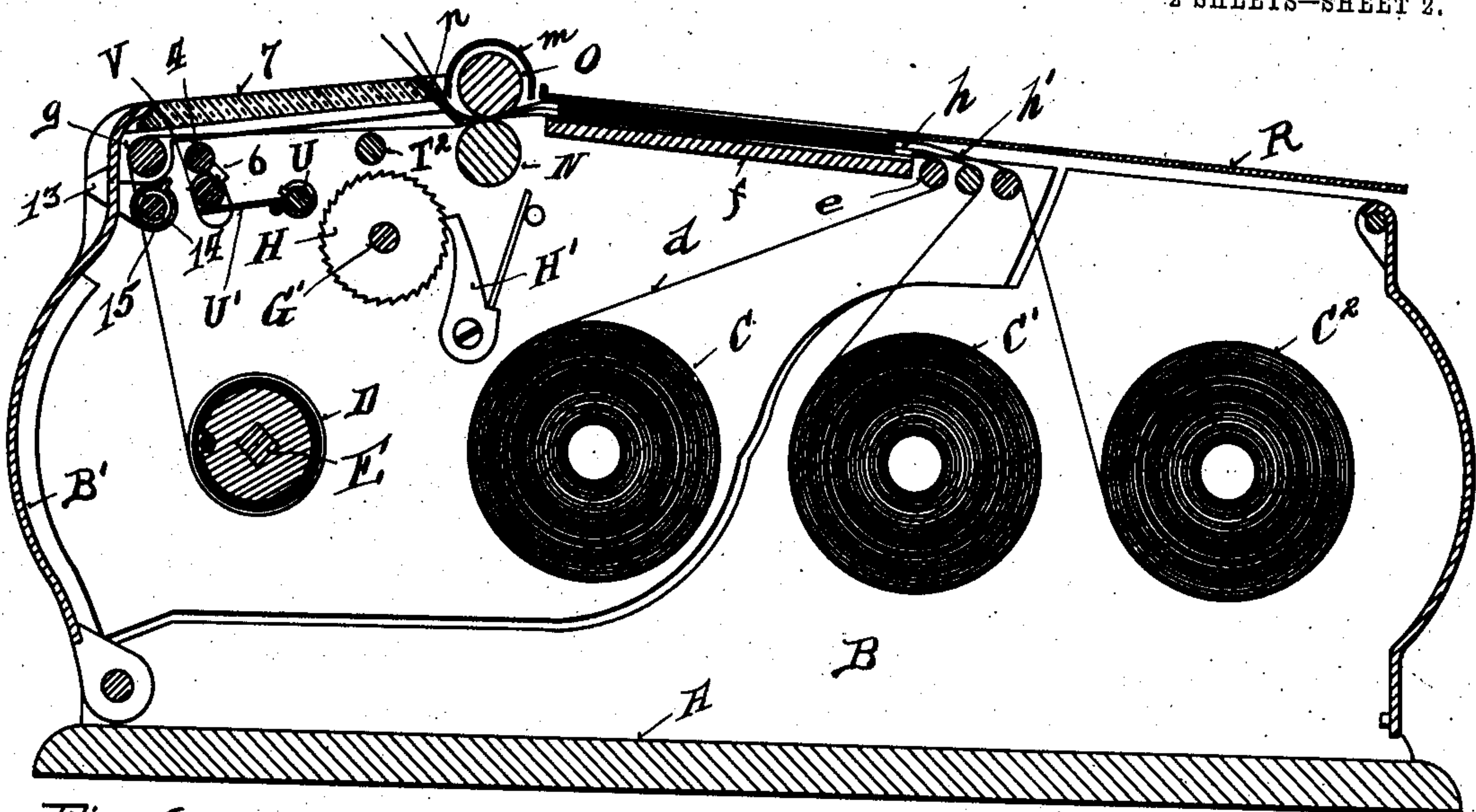


Fig. 6.

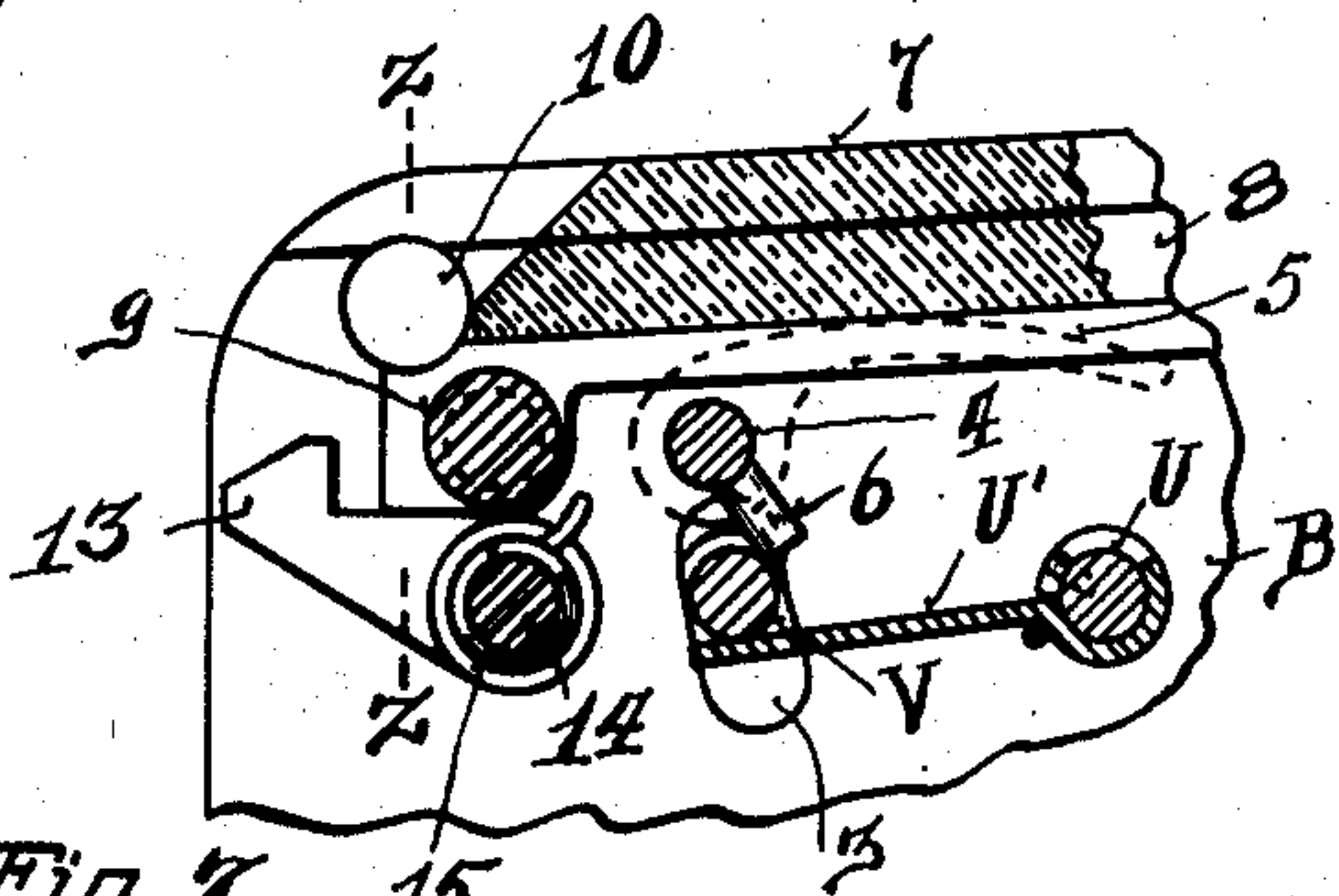


Fig. 7.

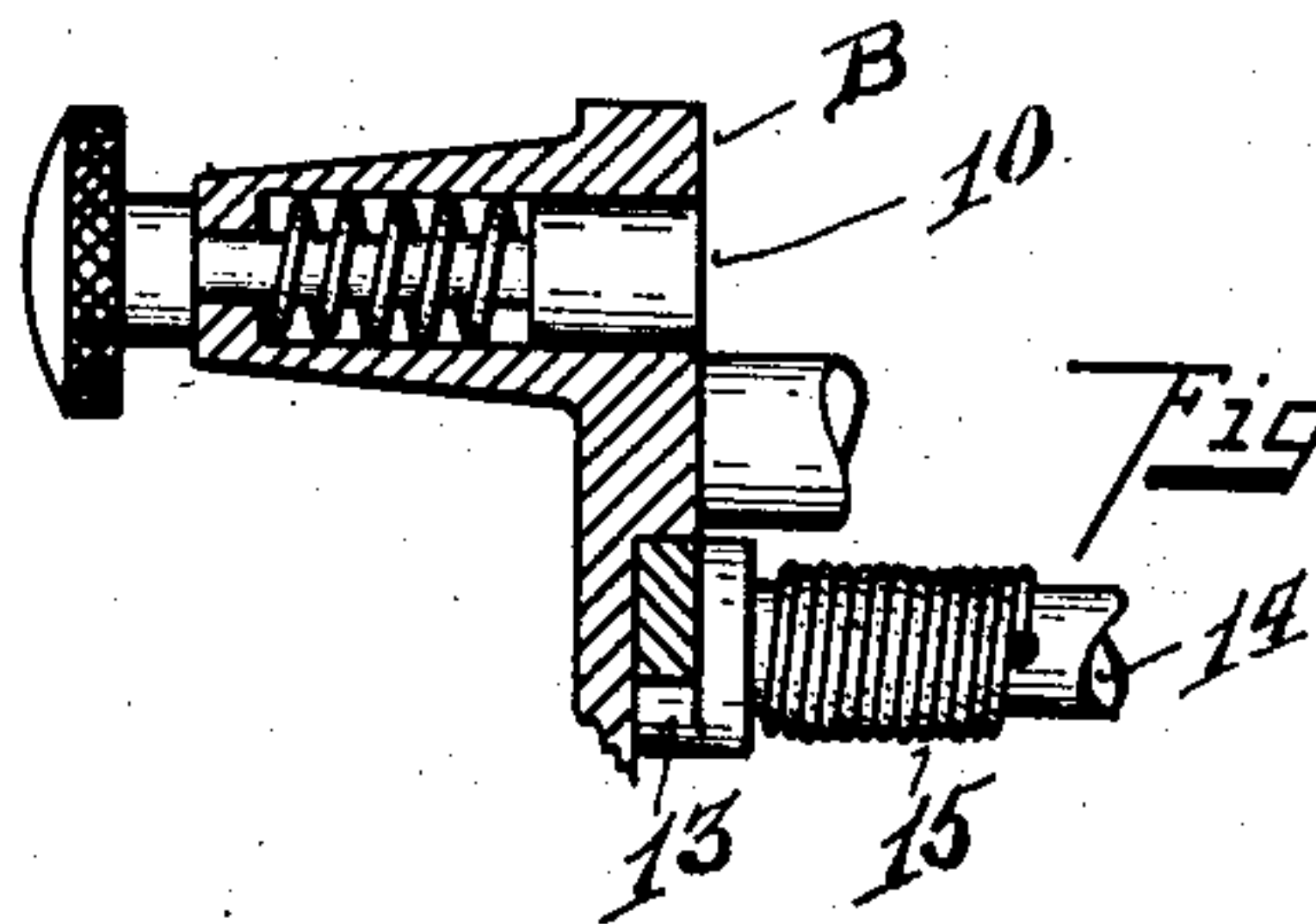


Fig. 8.

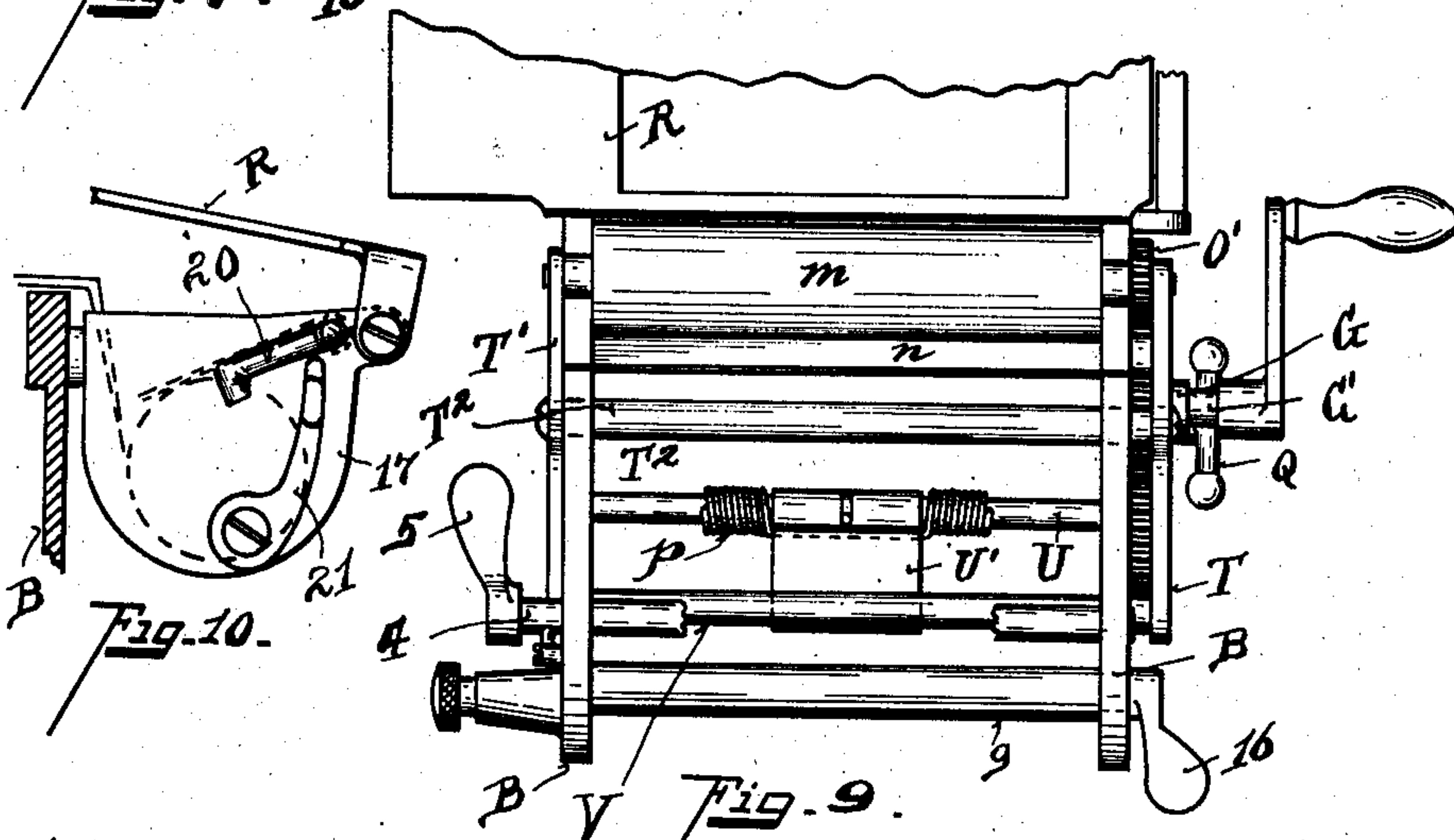


Fig. 9.

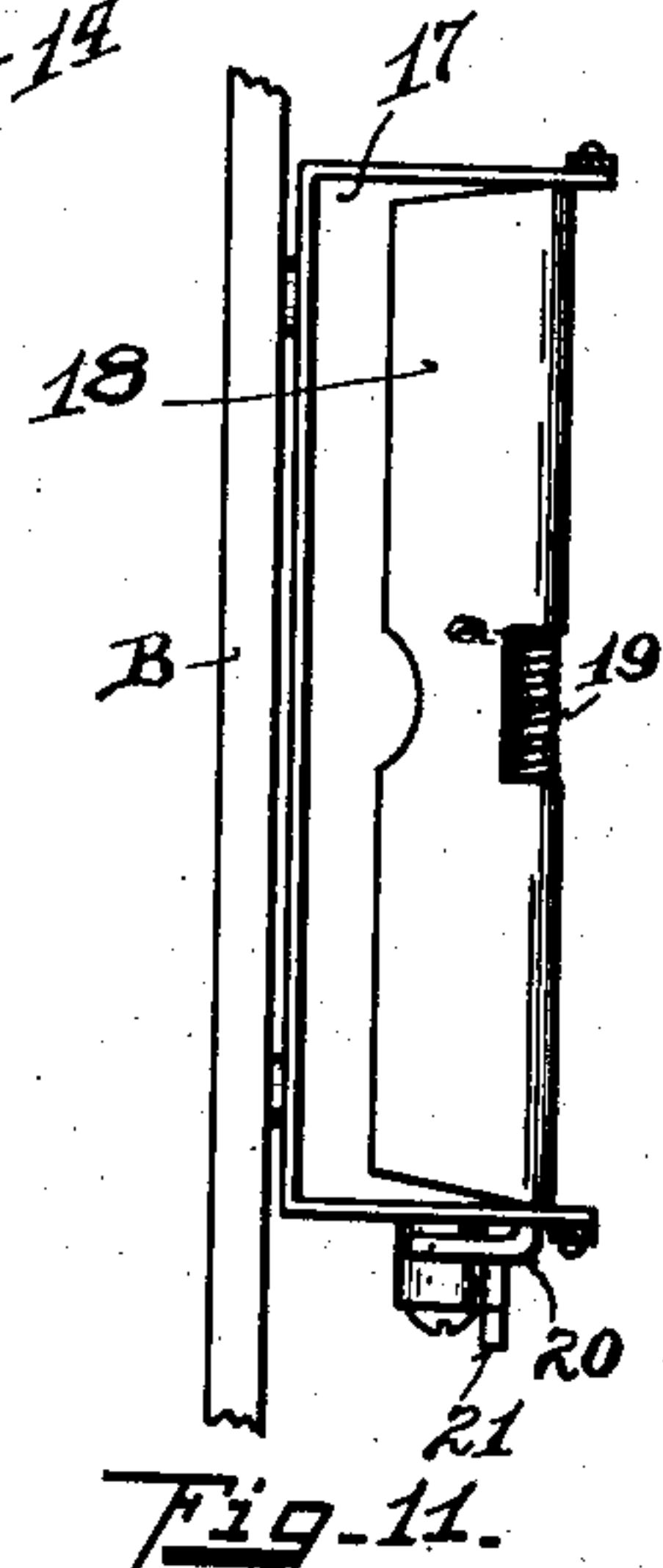


Fig. 10.

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AUTOGRAPHIC REGISTER.

No. 824,185.

Specification of Letters Patent.

Patented June 26, 1906.

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To all whom it may concern:

Be it known that I, ALBERT KRAUTH, a citizen of the United States, residing at Hamilton, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Autographic Registers, of which the following is a specification.

My invention relates to an autographic register.

One of the objects of the invention is to provide means for using the register as a combined duplicating and recording machine provided with means for converting the same into a simple duplicating machine.

Another object of the invention is to improve the construction and operation of the register and to simplify the operation.

The features of the invention will be more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the register with the gear-housing removed, showing the gears in position for duplicating and registering. Fig. 2 is an elevation of the front end of the machine, showing the gears in position for duplicating with the record-roll out of commission. Fig. 3 is a section on line *x x*, Fig. 2. Fig. 4 is a section on line *v v*, Fig. 2. Fig. 5 is a broken section on line *w w*, Fig. 1. Fig. 6 is a central vertical section of Fig. 1. Fig. 7 is an enlarged central sectional elevation of the front end of the register shown in Fig. 6 with the front door removed. Fig. 8 is a vertical section showing the spring-actuated locking-pin in position for holding the removable cover-plate against withdrawal. Fig. 9 is a top plan view of the front end of the register. Fig. 10 is an end view of the carbon-holder mounted on one side of the frame. Fig. 11 is a top plan view of the same. Fig. 12 is a central longitudinal section of the record roll and gear.

A represents the base of the machine.

B represents the side frames.

B' represents the front of the machine.

C C' C² represent paper-rolls supported within the machine upon supports whereby the rolls are readily removable, the parts being of ordinary construction.

D represents the record-roll supported upon a square shaft E. F represents the gear for driving the same. Said gear is provided with hubs which journal in the side frame B and the outside housing *b*. One end

of the said shaft E is round and journals in the right-hand side of the register-frame. The opposite end of said shaft is square and projects outwardly through the hub of the gear F.

I have provided two alternate modes of drawing the duplicate sheets of paper over the writing-table. When the roll D is in commission and the record strip of paper fixed thereto, it is so arranged that the action of the record-strip will impart motion to the delivery-rolls, said delivery-rolls having frictional contact therewith, which action draws forward such additional sheets above the record-strip and which pass between the delivery-rolls. G represents the main driving-gear mounted upon a shaft G', which projects through the machine and carries the ratchet-wheel H, which is held against back movement by the spring-pawl H'. Gear G imparts motion to the transmitting-gear I, which meshes with and transmits motion to the gear F on the shaft or registering-roll D. The paper when fed upon the roll D takes the following course: From roll C it passes over the roller *e*, thence over the writing-table *f*, thence between the delivery-rolls N O, held under tension toward each other, thence over roll *g*, thence to and around roll D. When the registering-roll is out of commission, said record-sheet of paper does not travel and the gears occupy the position shown in Fig. 2, in which case the driving-gear G is in engagement with the transmitting-gear K, which journals in the frame and housing *b*. This gear is in mesh and transmits motion to gear L, which is mounted on the delivery-roll N, journaling in the side frames of the register. O represents a coacting delivery-roll journaled above the roll N and provided with the gear O' in mesh with the gear L, so that both rolls are turned to draw the paper from the rolls C' C². The paper on said rolls takes the course shown by lines *h h'*, respectively, Fig. 6. In order to shift the commission of these sheets and rolls, the transmitting-gears I and K are mounted upon the elbow-bracket P, (shown in dotted lines, Fig. 2,) the vertical limb of said bracket being shown in section-lines, Fig. 3, the horizontal section being shown in section-lines, Fig. 4. Q represents a knurl-nut threaded upon the stud-shaft I'. Gear I is provided with a bushing which moves to and fro in a slot formed in the housing *b*, and the frame being likewise slot-

ted, so as to allow the shaft I' to move with the oscillation of the bracket P. The housing and frame opposite the shaft K' of the gear K are likewise slotted, so as to allow the gear K to move up and down with the oscillation of the bracket P. This bracket P when the knurl-nut Q is slack is freely moved or oscillated so as to bring at pleasure either one of the transmitting-gears I or K into commission with the driving-gear G, and by tightening the knurl-nut the proper train of gears can be set in motion for the desired work by revolving the crank. In order to impart a uniform tension to the coacting delivery-roll O, the following means are provided: T'T' represent a pair of arms at the rear end of which said roll O is journaled. Said arms are centrally journaled upon the shaft T². U represents a spring-supporting rod spanning the frame, as shown in Fig. 9, upon which is secured a pressure-plate U', tension being applied through the spring p, shown in said figure, the ends of said spring being coiled around the rod U and secured to it. The free end of said plate bears against the oscillating tie-rod V, which projects across and through slots 3 in the sides of the frame. (See Figs. 1 and 7.) 4 represents an actuating-rod provided with a handle 5 and a cam-pin 6; (see Figs. 7 and 9,) so that said handle 5 depresses the rod V, tilting the arms T'T' and lifting the coacting roll O out of engagement with its companion delivery-roll N. This construction and operation of the parts provides suitable pressure upon the delivery-rolls O and N, thereby insuring the correct movement of both rolls of sheets of paper being wound off of the roll C' C², and when the coacting roll O is thrown out of engagement the said sheets of paper can be properly laid in position to each other and to the carbon-paper and readily threaded between the delivery-rolls.

m represents a housing over roll O. n represents an inclined plate in rear of said housing. The sheets of paper h h' are delivered between said plate n and one limb of the housing m, which is provided with sharp edges, serving as a blade against which the strips may be brought and severed by an upward action thereof.

The front cover of the register is composed of a plate of glass 7, the edges of which are beveled, as shown in Figs. 6 and 7. The sides of the casing are provided with a groove 8, (see Fig. 7,) and the said glass is slid in and out at will in said groove, so as to afford ready access to the interior of the register. The glass is held firmly in position by means of a spring-actuated pin 10, (see Fig. 8,) which is pulled outward to allow the insertion and removal of the glass.

R represents the hinged slotted cover provided with the ordinary opening over the table. It is locked down in position by means

of the spring-catch S, adapted to engage into the notch S' (see Fig. 5) in the side of the frame.

S² represents an elbow-arm projecting through the cover, which may be pushed back, releasing the catch and allowing the cover to be opened.

The front end of the casing is closed by means of a hinged door B', notched to receive spring-catches 13. (See Fig. 6.) Said catches are mounted upon a shaft 14. 15 represents the coil-spring for imparting tension to the catches and for holding in engagement the notches on the door. 16 represents an arm on the end of said shaft 14 for releasing the catches to open the door.

It has been customary in registers of this class to provide a tension-blade adapted to bear upon the roll of carbon-paper in the carbon-paper receptacle, and in adjusting the carbon this tension-plate is held from carbon contact by the operator. In my improved register I provide means whereby the tension-blade is held from contact with the roll of carbon-paper, consisting of the following instrumentalities: 17 represents the carbon-receptacle secured to the frame B adjacent to the table f. This receptacle also serves as a support to which the cover-plate R is hinged. 18 represents a tension-blade provided with a spring 19 for maintaining a downward pressure to said blade. 20 represents an actuating-rod, to which the blade 18 is fixed, said rod being bent over at one end outside of the receptacle, forming a catch against which the lever 21 engages when it is desired to release the blade from the carbon-paper roll. (See Fig. 10.) Thus it will be seen that in moving lever 21 to the left it will engage rod 20, moving the same upward, likewise the tension-blade 18, which is fixed to the rod 20.

I have found by experience that the construction of the register herein shown and described makes a reliable register-machine, insuring a uniform and accurate delivery of the written matter on the duplicating and registering sheets, which can readily be converted into a duplicate machine, so that the register is readily adapted to the different uses desired and obviates the necessity of using one register for a record-machine and another register for a duplicate machine.

Having described my invention, I claim—

1. In an autographic register, a writing-table, a pair of delivery-rolls, a series of strips of paper adapted to be fed over the writing-table and between the delivery-rolls, a record-roll, one of said strips of paper secured to said record-roll, transmission-gearing for said record-roll, transmission-gearing for said delivery-rolls, main transmission-gearing interposed between the transmission-gearing of the record-roll and delivery-rolls respectively, and means for throwing into driving engagement the main transmission-gearing with

either the record-roll transmission-gearing or the delivery-rolls transmission-gearing, substantially as described.

2. In an autographic register, a writing-table, a record-roll, a record-strip of paper adapted to be fed over said table upon said record-roll, transmission mechanism adapted to be brought into driving engagement with said record-roll, delivery-rolls held in
10 tensional contact with each other, between which said record-strip is fed, one or more strips of paper additional to the record-strip adapted to be fed over the writing-table and between the delivery-rolls, and means for
15 throwing said transmission mechanism out of driving engagement with said record-roll and into driving engagement with said delivery-roll, substantially as described.

3. In an autographic register, a writing-table, a record-roll, a record-strip of paper adapted to be fed over said table upon said record-roll, transmission mechanism adapted to be brought into driving engagement with
20 said record-roll, delivery-rolls held in tensional contact with each other, between which said record-strip is fed, one or more strips of paper additional to the record-strip adapted to be fed over the writing-table and
25 between the delivery-rolls, means for throwing said transmission mechanism out of driving engagement with said record-roll and into driving engagement with said delivery-roll, and means for locking said transmission mechanism in its respective driving positions,
30 substantially as described.

4. In an autographic register, a writing-table, a pair of delivery-rolls held in ten-

sional contact with each other, a series of strips of paper adapted to be fed over the writing-table and between the delivery-rolls, 40 a record-roll detachably supported, one of said strips of paper secured to said record-roll, transmission-gearing for said record-roll, transmission-gearing for said delivery-rolls, main transmission mechanism, and 45 means for throwing into driving engagement the main transmission mechanism with either the record-roll transmission-gearing or the delivery-rolls transmission-gearing, substantially as described. 50

5. In an autographic register, a writing-table, a record-roll, a record-strip of paper adapted to be fed over said table upon said record-roll, transmission mechanism adapted to be brought into driving engagement 55 with said record-roll, delivery-rolls held in tensional contact with each other, means for separating said delivery-rolls, said record-strip adapted to be fed between said delivery-rolls, one or more strips of paper additional 60 to the record-strip, adapted to be fed over the writing-table and between the delivery-rolls, and means for throwing said transmission mechanism out of driving engagement with said record-roll and into driving engage- 65 ment with said delivery-rolls, substantially as described.

In testimony whereof I have hereunto set my hand.

ALBERT KRAUTH.

Witnesses:

OLIVER B. KAISER,
LEO O'DONNELL.