

No. 835,453.

PATENTED NOV. 6, 1906.

L. MEYER & J. B. LOSEY.
TYPE WRITING MACHINE.

APPLICATION FILED MAY 7, 1904.

2 SHEETS—SHEET 1

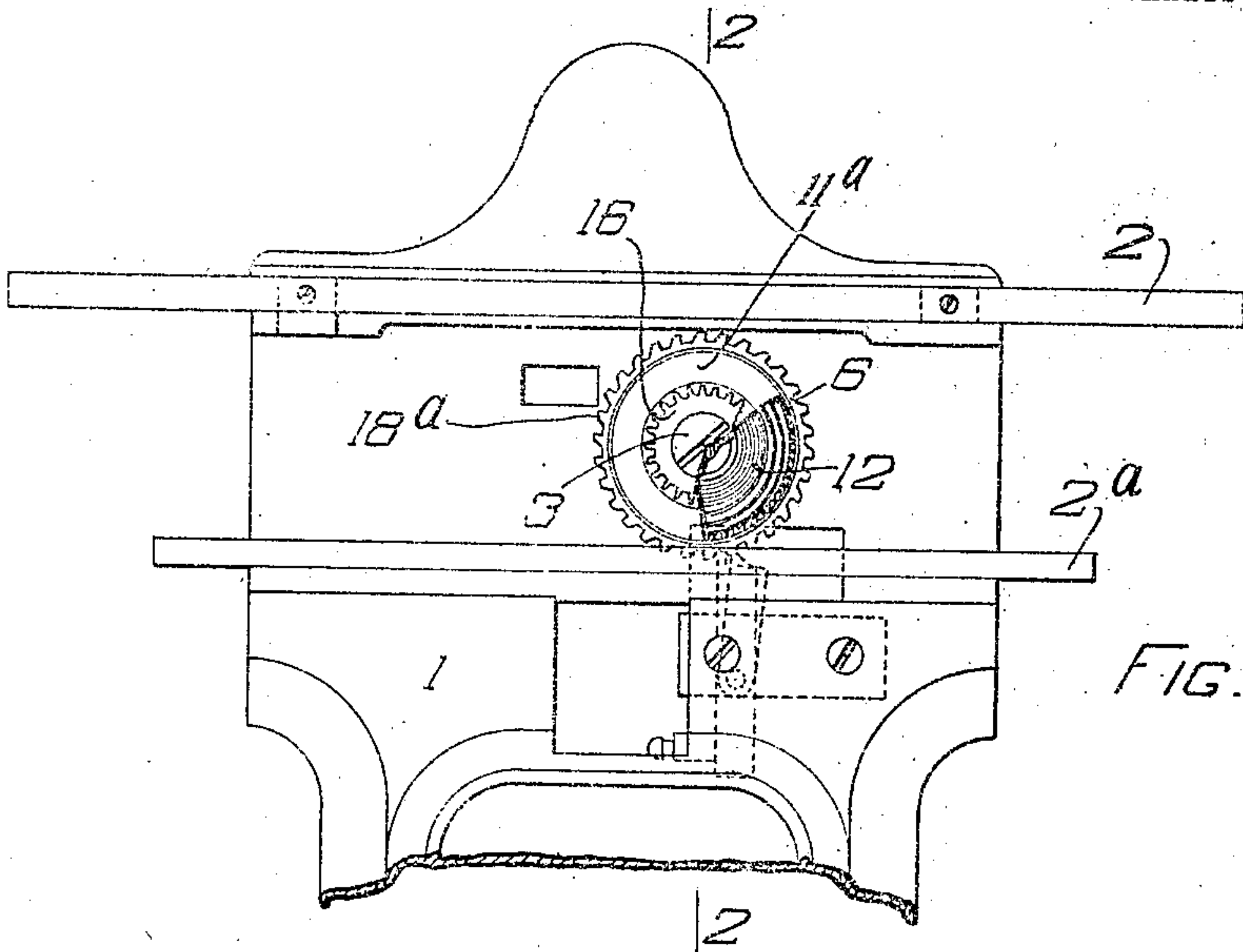


FIG. 1.

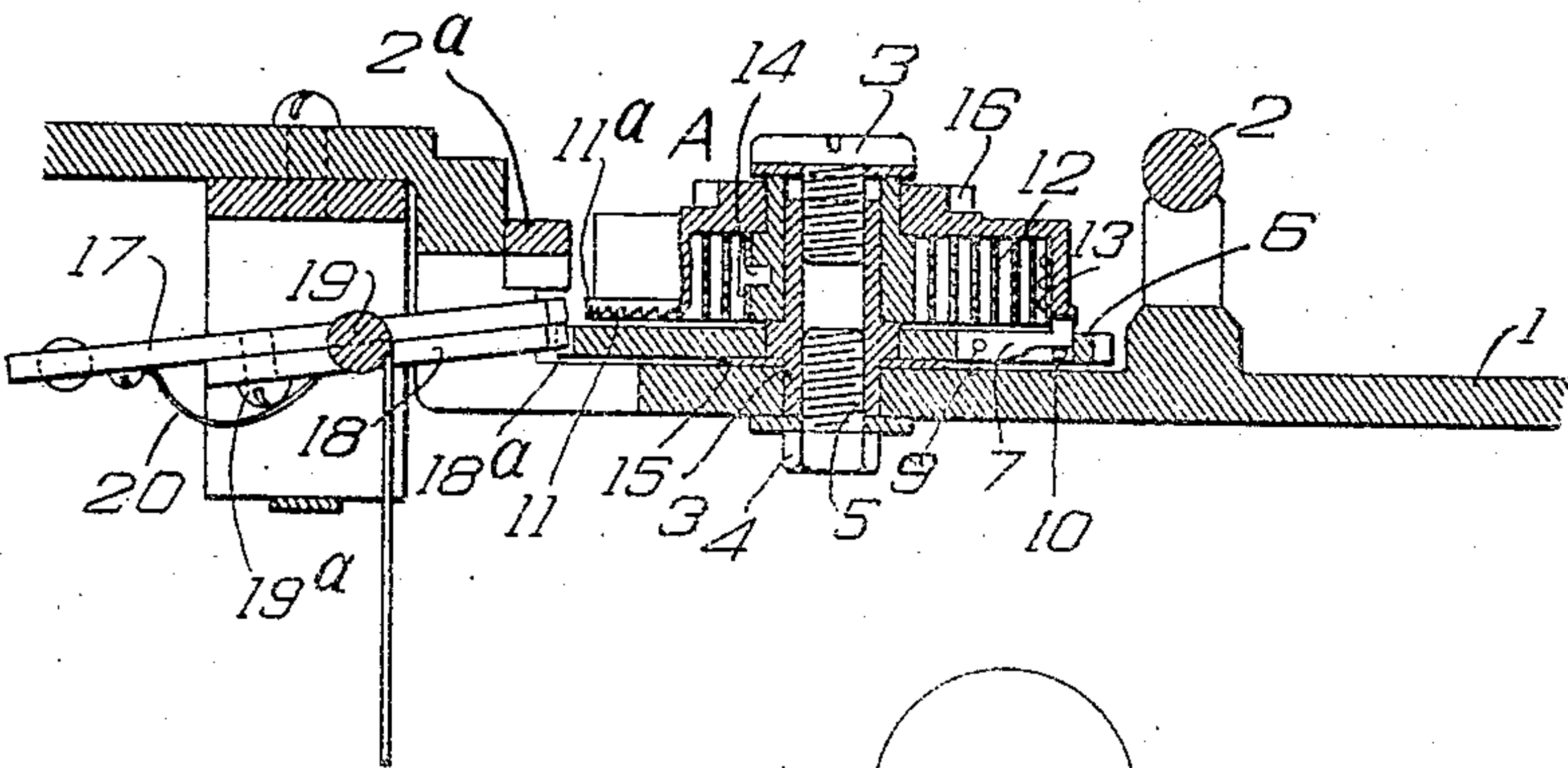


FIG. 2.

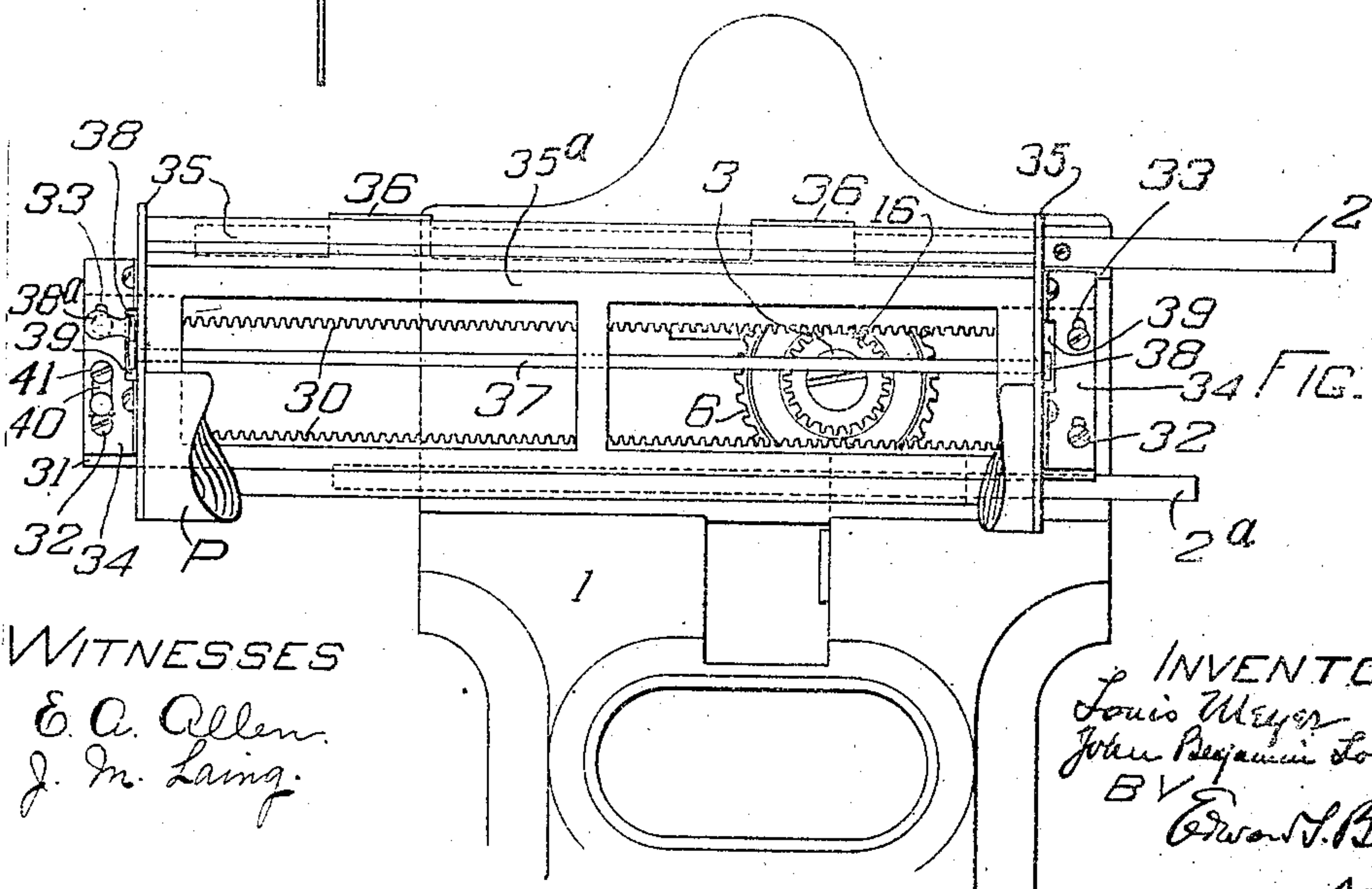


FIG. 3.

WITNESSES
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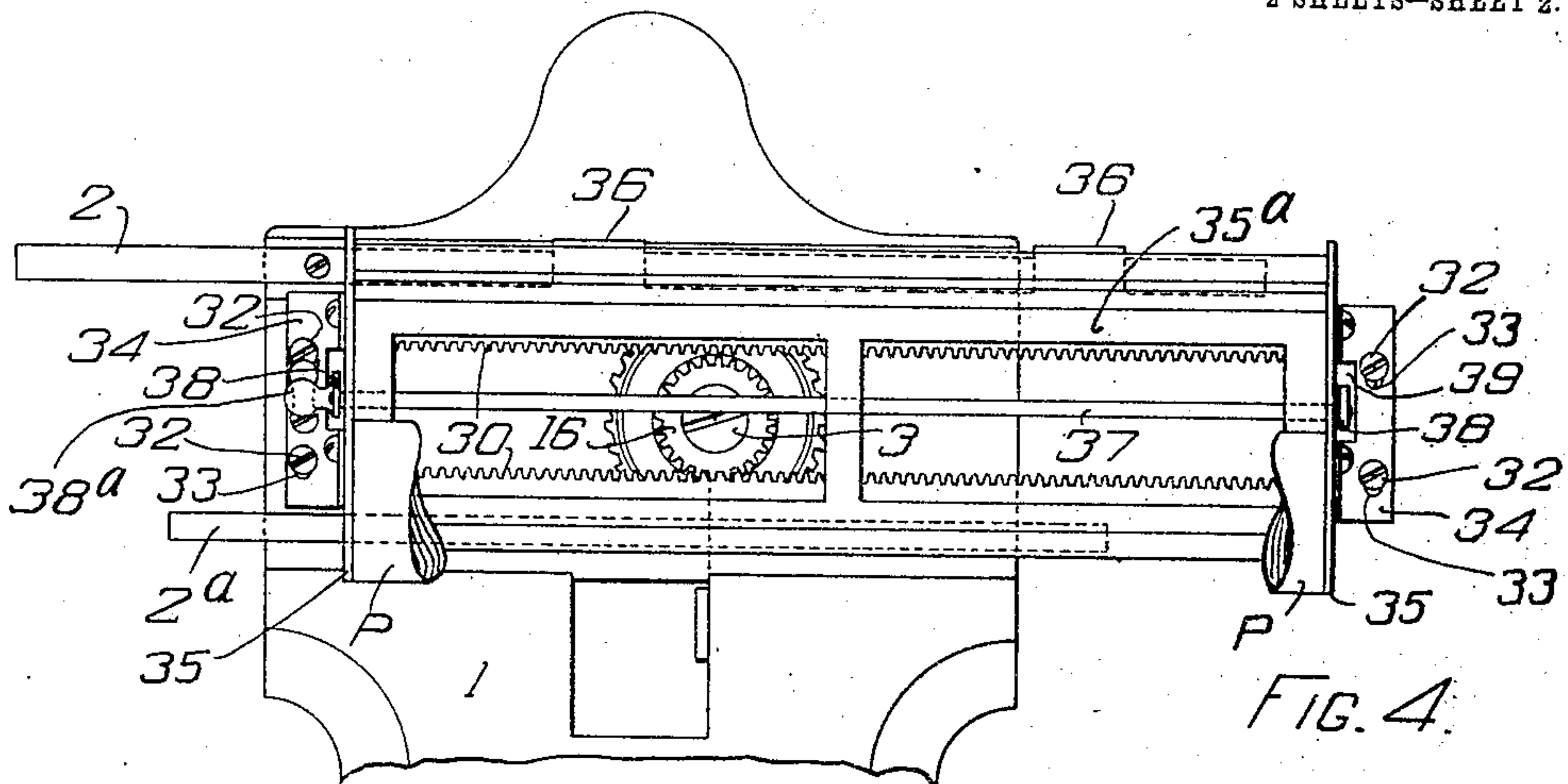


FIG. 4.

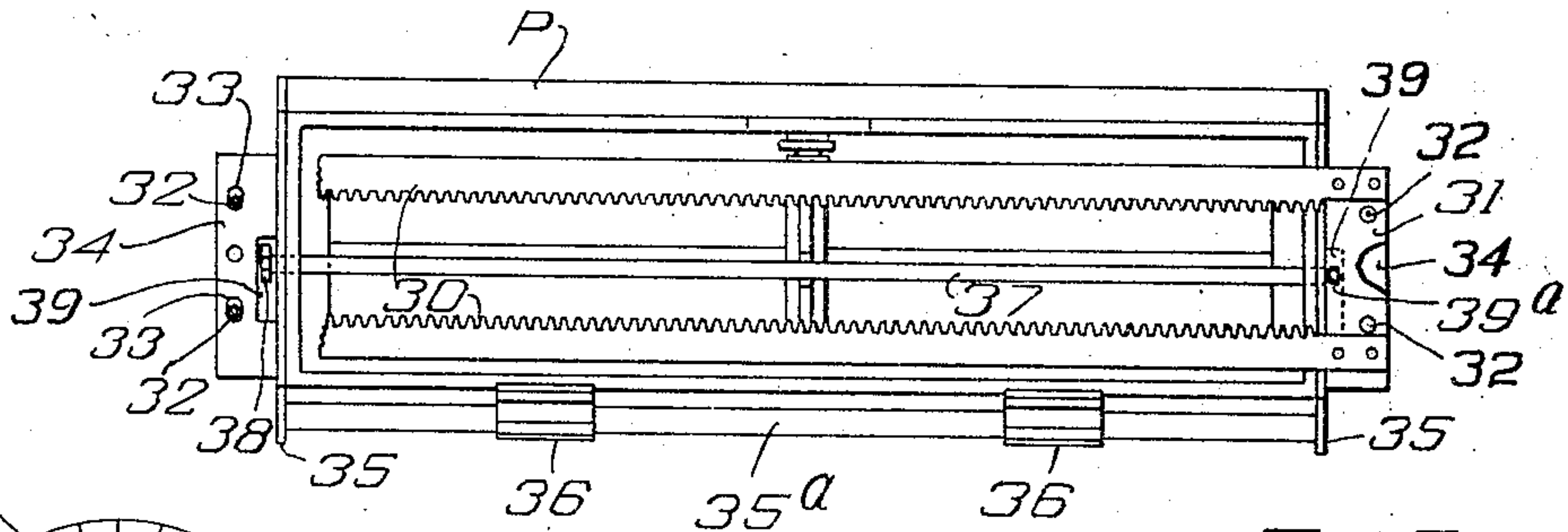


FIG. 5.

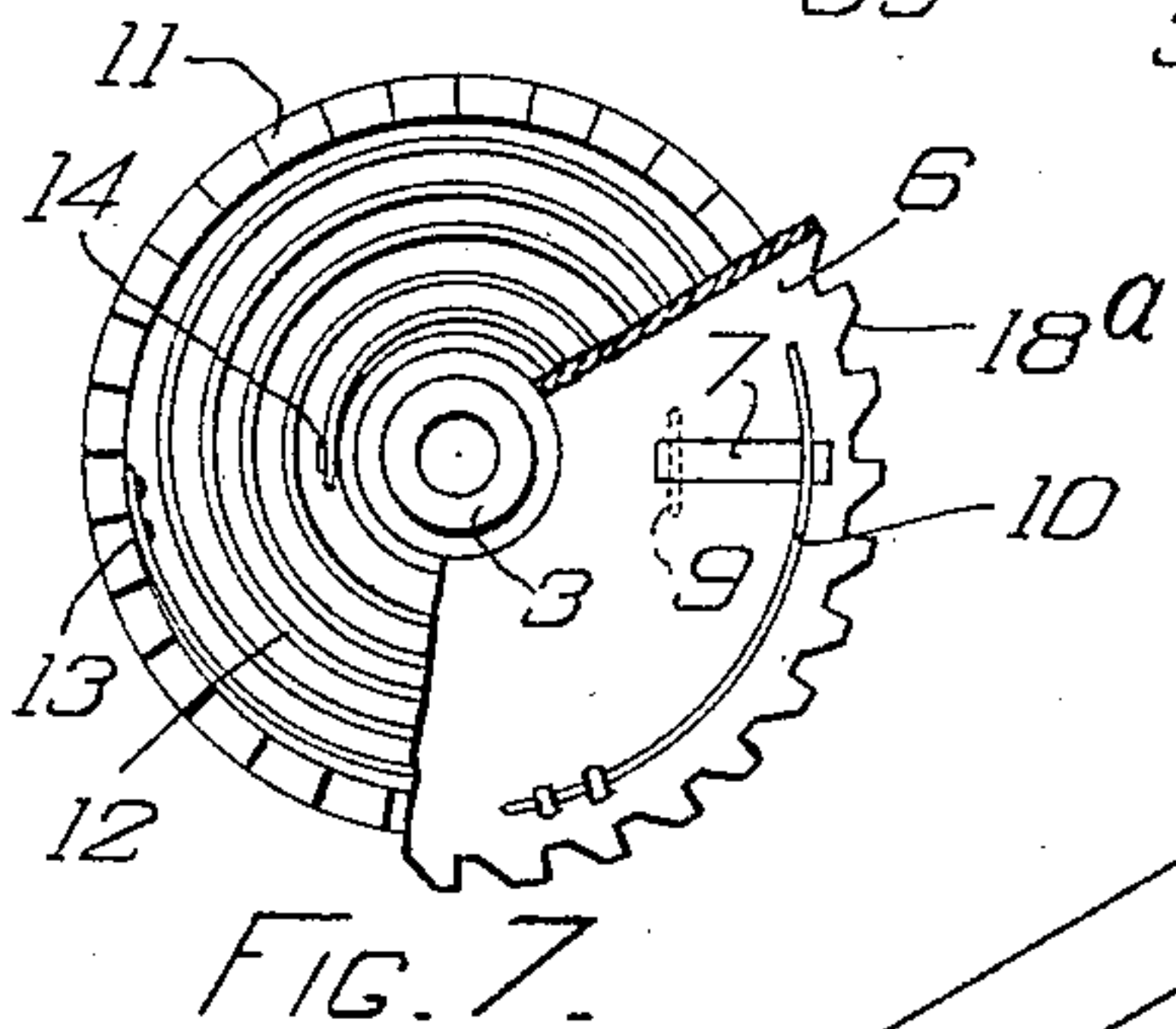


FIG. 7.

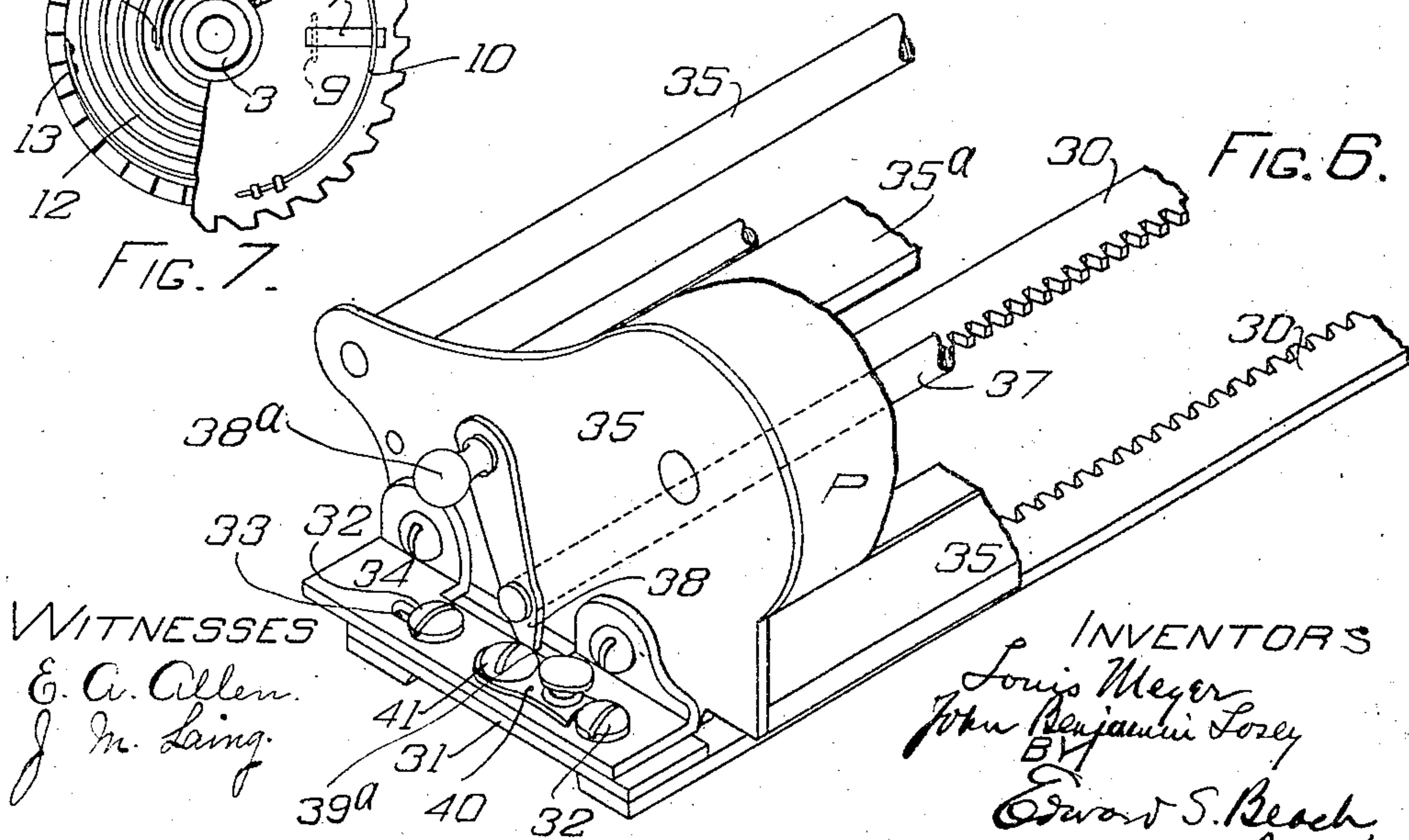


FIG. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

LOUIS MEYER, OF NEW YORK, AND JOHN BENJAMIN LOSEY, OF GROTON,
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TYPE-WRITING MACHINE.

No. 835,453.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed May 7, 1904. Serial No. 206,807.

To all whom it may concern:

Be it known that we, LOUIS MEYER, residing at New York city, in the county of New York, and JOHN BENJAMIN LOSEY, residing at Groton, in the county of Tompkins, State of New York, citizens of the United States, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a top plan view of a portion of the deck-frame of a type-writing machine, the paper-carriage being removed to show more clearly the paper-carriage step-by-step actuator, a portion of which is broken away to show the interior spring thereof, the step-by-step actuating mechanism for the carriage actuator being shown in dotted lines. Fig. 2 is a view, partly in section, on line 2 2 of Fig. 1, and partly in side elevation, and illustrates the construction of said actuator and step mechanism therefor. Fig. 3 is a top plan view of the carriage in place, the platen-roll being broken away and attachments for operating the same omitted for greater clearness and the carriage being shown in operative connection with its actuator for printing from right to left. Fig. 4 is a view similar to that on Fig. 3, the carriage, however, being shown in operative connection with its actuator for printing from left to right. Fig. 5 is an under plan view of the platen-holder which with the double rack constitutes the paper-carriage frame. Fig. 6 is a perspective of a portion of the double rack-frame and paper-carriage and shows clamp-stops which hold the paper-carriage in one or the other of two fixed positions on the double rack-frame. Fig. 7 is an under plan view of a portion of the dog-wheel, pivoted pawl, and spring carried thereby, and also of the under side of the spring-casing, showing the ratchet on the under edge of the spring-casing.

The object of our invention is to produce a type-writing machine which can be used for printing from either left to right, as in English, for example, or from right to left, as in Hebrew, for example. While our invention is capable of embodiment in type-writing machines of various constructions, it is herein shown in a so-called "visible" writing-machine and in one the paper-carriage

of which is given its step-by-step endwise movement by a spring.

In the drawings illustrating the principle of our invention and the best mode now known to us of applying that principle, 1 is the deck-frame; 2 2^a, the transverse parallel ways on which the paper-carriage has its endwise movement, the rear way being marked 2 and the front way 2^a.

3 is the post of the carriage-actuator A. It is clamped upright in the deck-frame under neath the paper-carriage by a nut 4 on its lower threaded end 5.

6 is the dog-wheel of the actuator and is provided with a pawl 7, pivoted in a slot in the dog-wheel at 9 and pressed inwardly by a suitable spring 10 to engage the ratchet 11 on the casing 11^a of the spring 12, one end of which is fast to the casing at 13 and the other end of which is fast to the post at 14.

A washer 15 between the under side of dog-wheel 6 and upper surface of the deck-frame 1 holds the dog-wheel sufficiently away from the frame to permit the pawl 7 to move down when a ratchet-tooth rides over the pawl and to spring up into engagement with a ratchet-tooth to keep the ratchet from rotating in the wrong direction. Integral with ratchet 11 and casing 11^a there is a pinion 16 at the upper end of post 3, the ratchet being on the under edge of the spring-casing and the pinion on the upper surface thereof in this preferred construction, the upper surface of the dog-wheel forming the bottom of the casing 11^a.

The foregoing parts are old and well known to those skilled in the art as one of many paper-carriage actuators.

The dog-wheel is given a step-by-step movement in printing by means of a suitable tight dog 17 and loose dog 18, having the usual reciprocating movement in relation to the teeth 18^a of the dog-wheel, the tight dog in the present construction being fast on a rocker-shaft 19 and the loose dog being pivoted on the under side of the tight dog at 19^a and the two dogs being suitably connected by a spring 20. The two dogs, rocker-shaft, and spring constitute an old and well-known mechanism for giving the carriage-actuator its step-by-step movement to move the paper-carriage endwise in printing.

To effect the object of our invention—the production of a type-writing machine which

may be used for printing from either left to right or right to left by an adjustment under the control of the operator for that purpose—the paper-carriage frame is provided with a double rack comprising two parallel rack-bars 30, each toothed on its inner edge for engagement of one or the other with the pinion 16, the diameter of which is less than the distance between the opposed toothed edges of the rack-bars, which are held together by cross-bars 31, which are provided with upward clamp-stops 32, that pass through transverse slots 33 in the end ears 34 of the paper-carriage frame 35 and hold the carriage-frame in place on the double rack-bar. The carriage-frame has the usual rear lugs 36, projecting rearwardly and downwardly from the carriage member 35^a, which slide on the rear way 2 when the paper-carriage moves endwise.

In the present construction the paper-carriage is not movable from and toward the operator, but the double rack is so movable to bring one or the other rack-bar 30 into engagement with the pinion 16, whereby the carriage is moved endwise, and to move the other rack-bar out of contact with the pinion, so as not to interfere with the movement of the paper-carriage in the desired direction.

To move the double rack to bring one rack-bar into and to carry the other rack-bar out of engagement with pinion 16, the paper-carriage frame is provided with a lengthwise rod 37, journaled in the end pieces 35 of the carriage and provided at each end with a rocker-arm 38, the lower end of which extends downwardly through a recess 39 in a carriage-ear 34 and into a hole at 39^a in each cross-bar 31 of the double rack. One of the rocker-arms 38 has a handle extension 38^a. By rocking the rod 37 the arms 38 cause the double rack to move at right angles to the length of the paper-carriage, so that one rack-bar or the other is brought into engagement with the pinion 16. A latch 40, pivoted at 41 on an ear 34, is swung to bring its free end into engagement with one or the other of the two clamp-posts 32, between which it is mounted, and to thereby hold the carriage-frame and double rack in fixed relation one to the other when one or the other rack-bar is in mesh with pinion 16 by pressing the clamp-posts 32 against end walls of the slots 33. Portions of the usual platen or paper-roll P are shown in the carriage, all the members of which are marked 35, with the exception of the part 35^a. Any suitable carriage may be used.

In the present construction the spring 12 is wound up whenever the carriage is shoved endwise by the operator after printing a line and is consequently in condition to move the paper-carriage endwise step-by step, either from left to right or from right to left, as desired.

Any suitable system of type-carriers and their actuating mechanism may be used with our new step-by-step endwise movable paper-carriage for printing from either left to right or right to left, and various changes may be made in the mechanism described without departure from our invention.

What we claim is—

1. In a type-writing machine, a paper-carriage provided with end ears having transverse slots with a lengthwise double rack having cross-bars provided with clamp-stops that pass through said slots; in combination with an automatic, step-by-step carriage-actuator; and a lever mounted on said carriage and engaging said rack to move the same into and out of connection with said actuator.

2. The combination in a type-writer, provided with end ears having transverse slots, of a paper-carriage; companion oppositely-facing racks slidably mounted on the carriage and having cross-bars provided with clamp-stops that pass through said slots; a pinion for feeding the carriage, located between said racks, and adapted to be put into mesh with either of them; the diameter of said pinion being less than the distance between the inner surfaces of the racks; and means for moving said racks into coöperation with said pinion.

3. The combination in a type-writer, provided with end ears having transverse slots, of a paper-carriage; companion oppositely-facing racks slidably mounted on the carriage and having cross-bars provided with clamp-stops that pass through said slots; a pinion for feeding the carriage, located between said racks, and adapted to be put into mesh with either of them; the diameter of said pinion being less than the distance between the inner surfaces of the racks; and means for moving said racks into coöperation with said pinion; and a latch pivoted on one of said ears and adapted to be moved into engagement with a clamp-stop.

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

LOUIS MEYER.

JOHN BENJAMIN LOSEY.

Witnesses:

EDWARD S. BEACH,
E. A. ALLEN.