

953,819.

B. B. CONRAD.
NUMBERING MACHINE.
APPLICATION FILED JULY 30, 1909.

Patented Apr. 5, 1910.

2 SHEETS—SHEET 1.

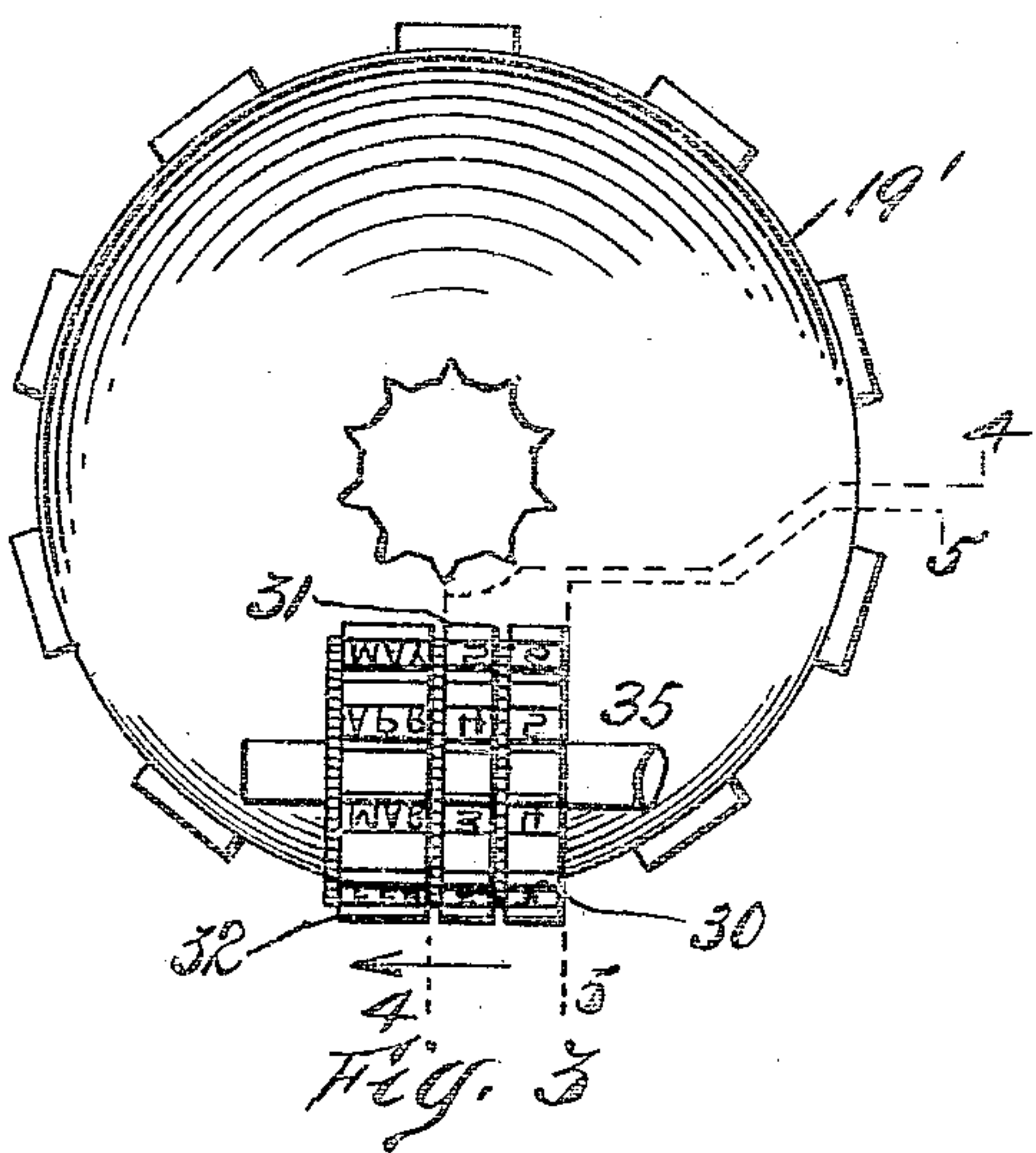
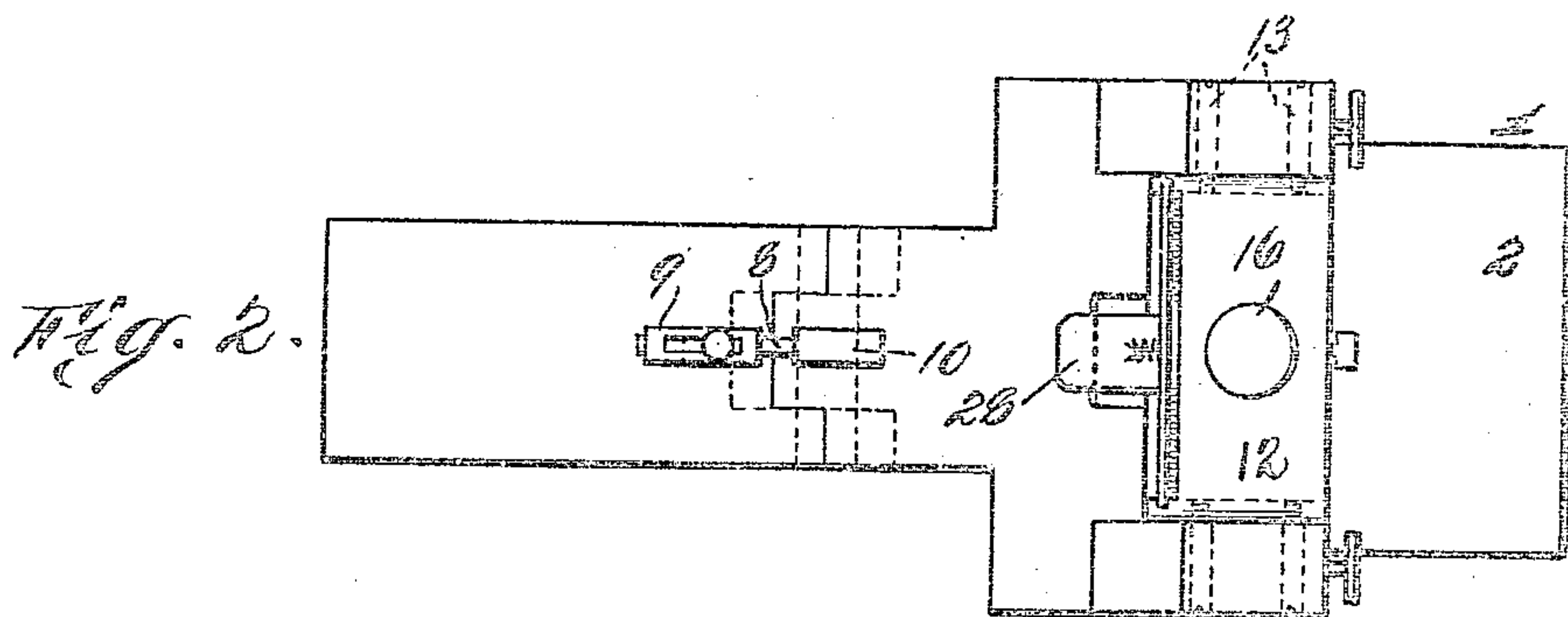
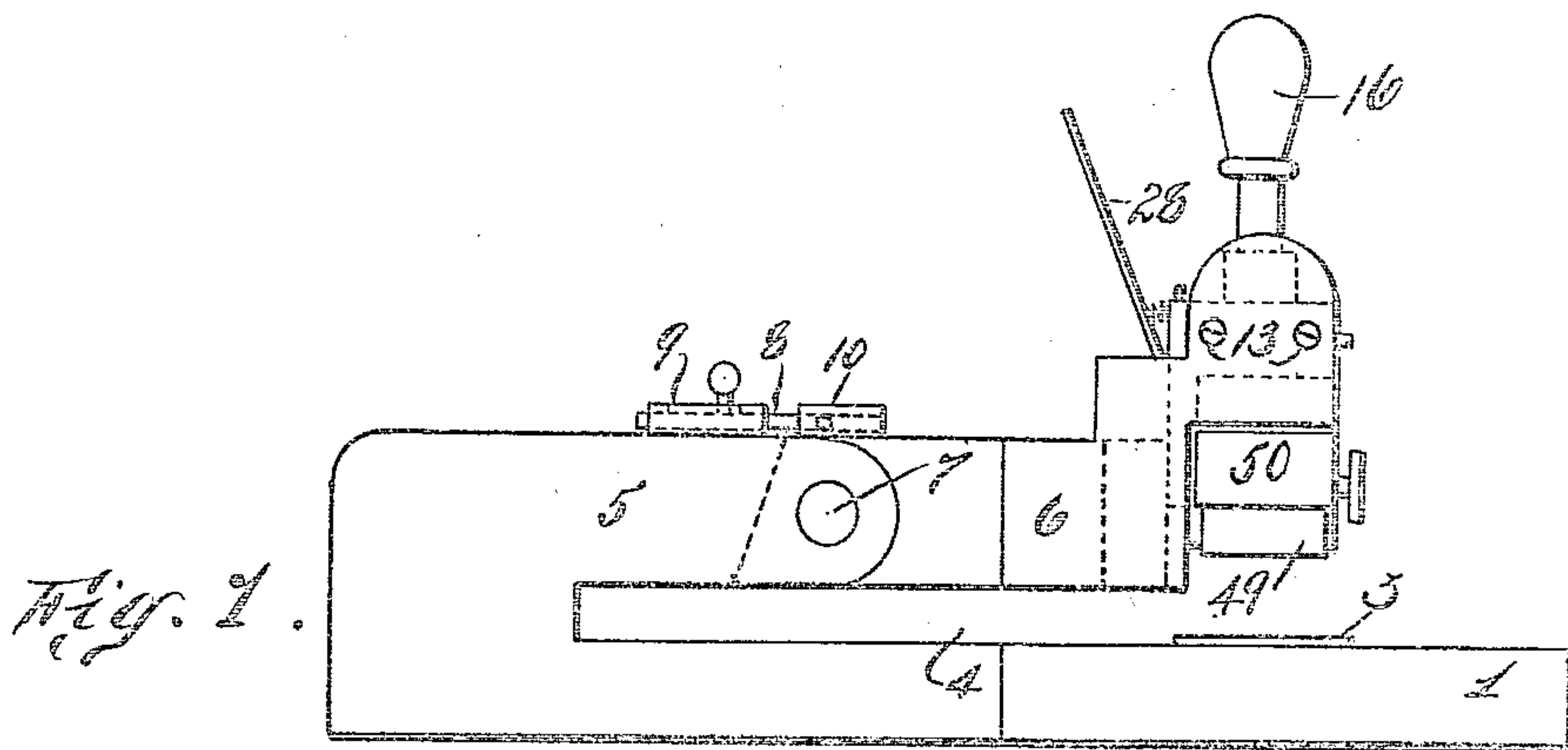
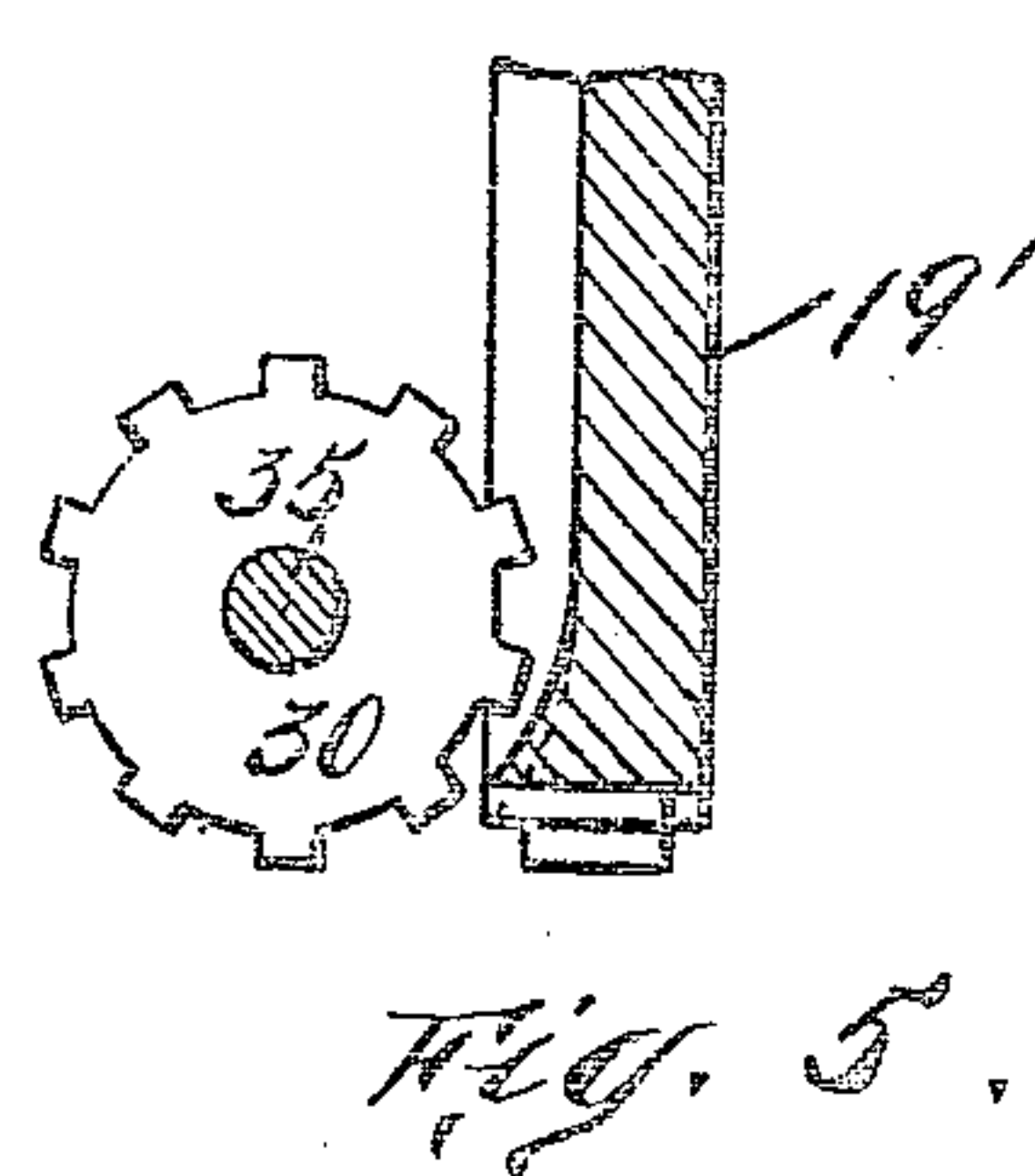
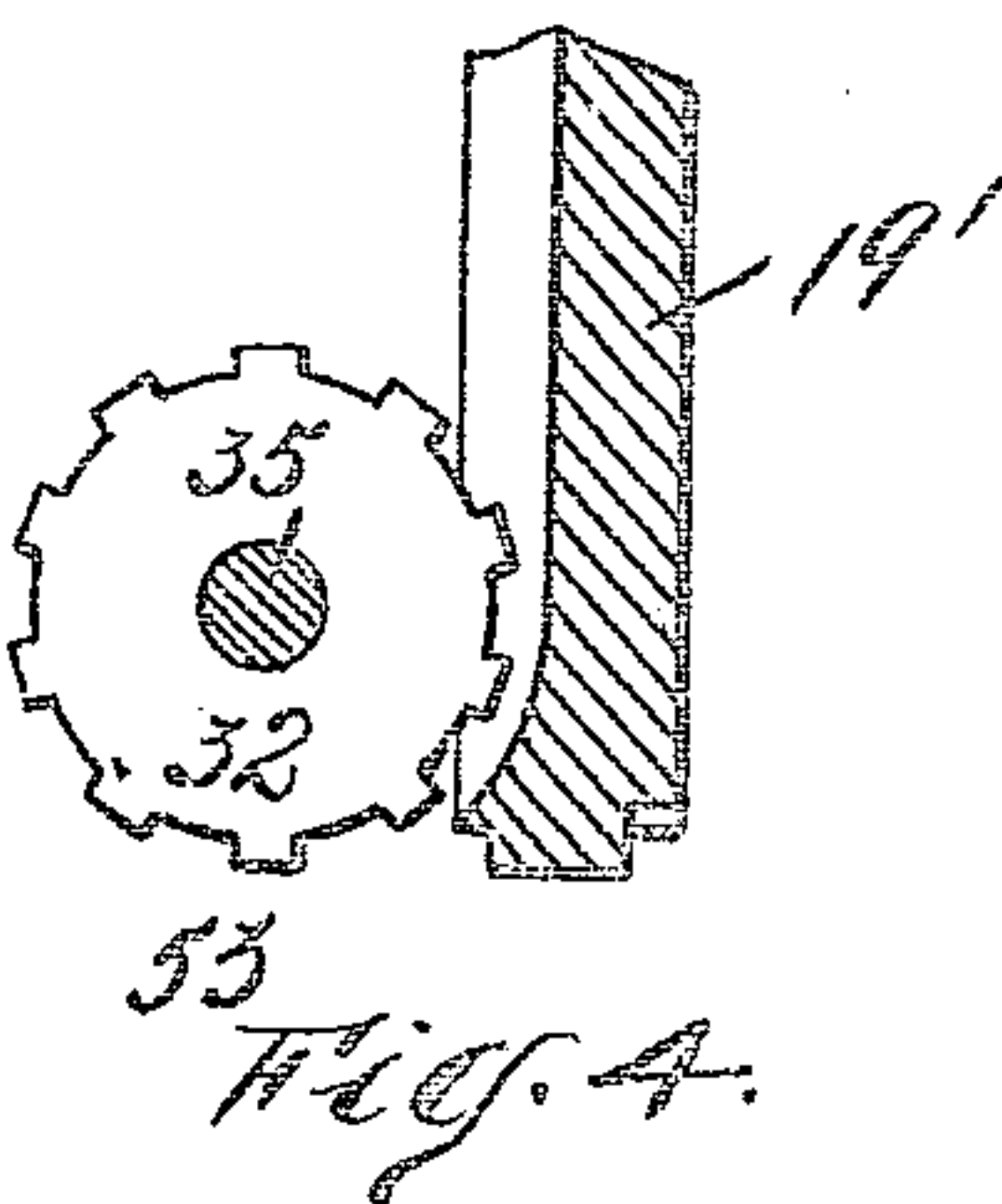


Fig. 1b. ACTUARIES OFFICE
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1ST ASSISTANT



Witnesses:
C. A. Jarvis
Benjamin O. Kenting.

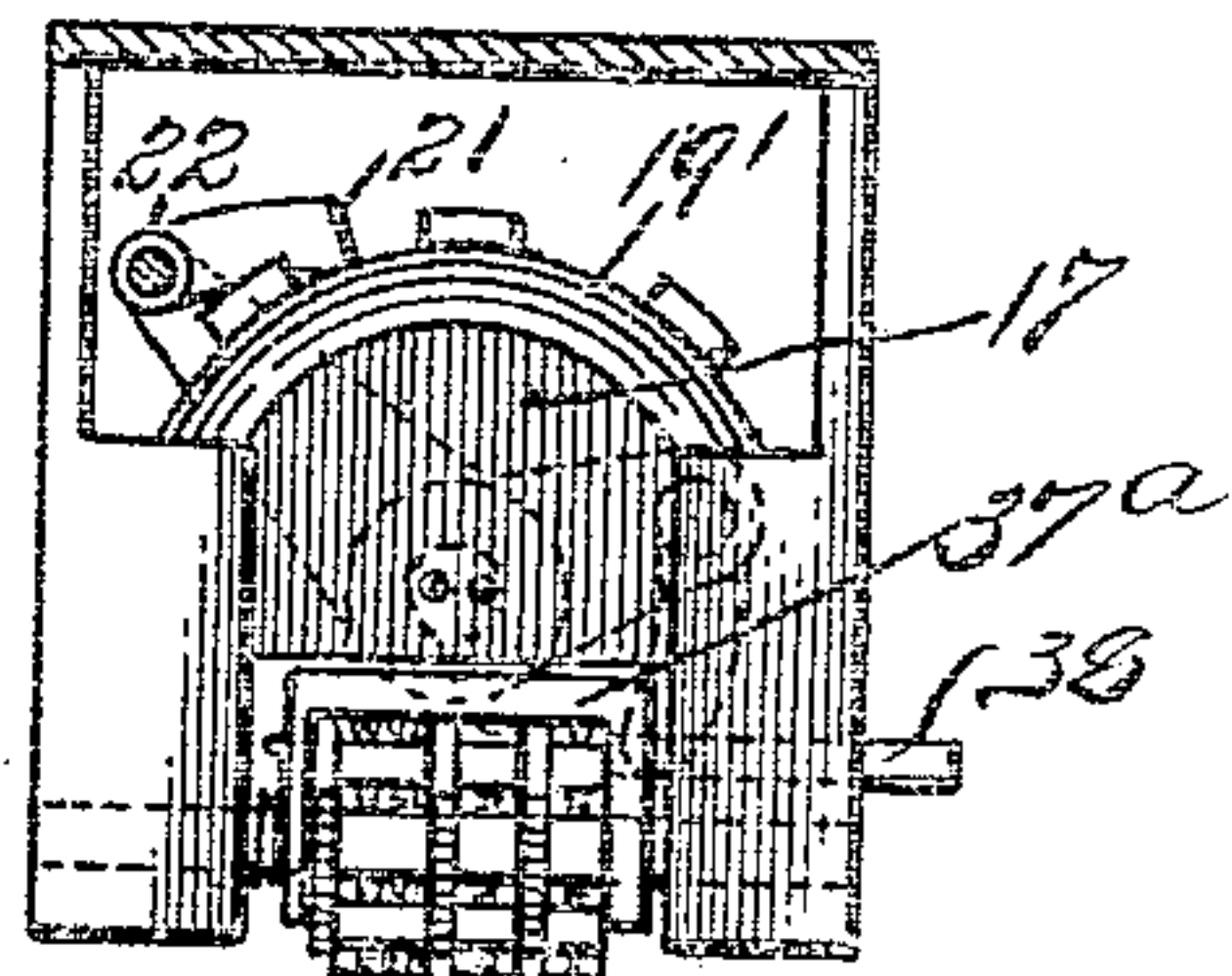
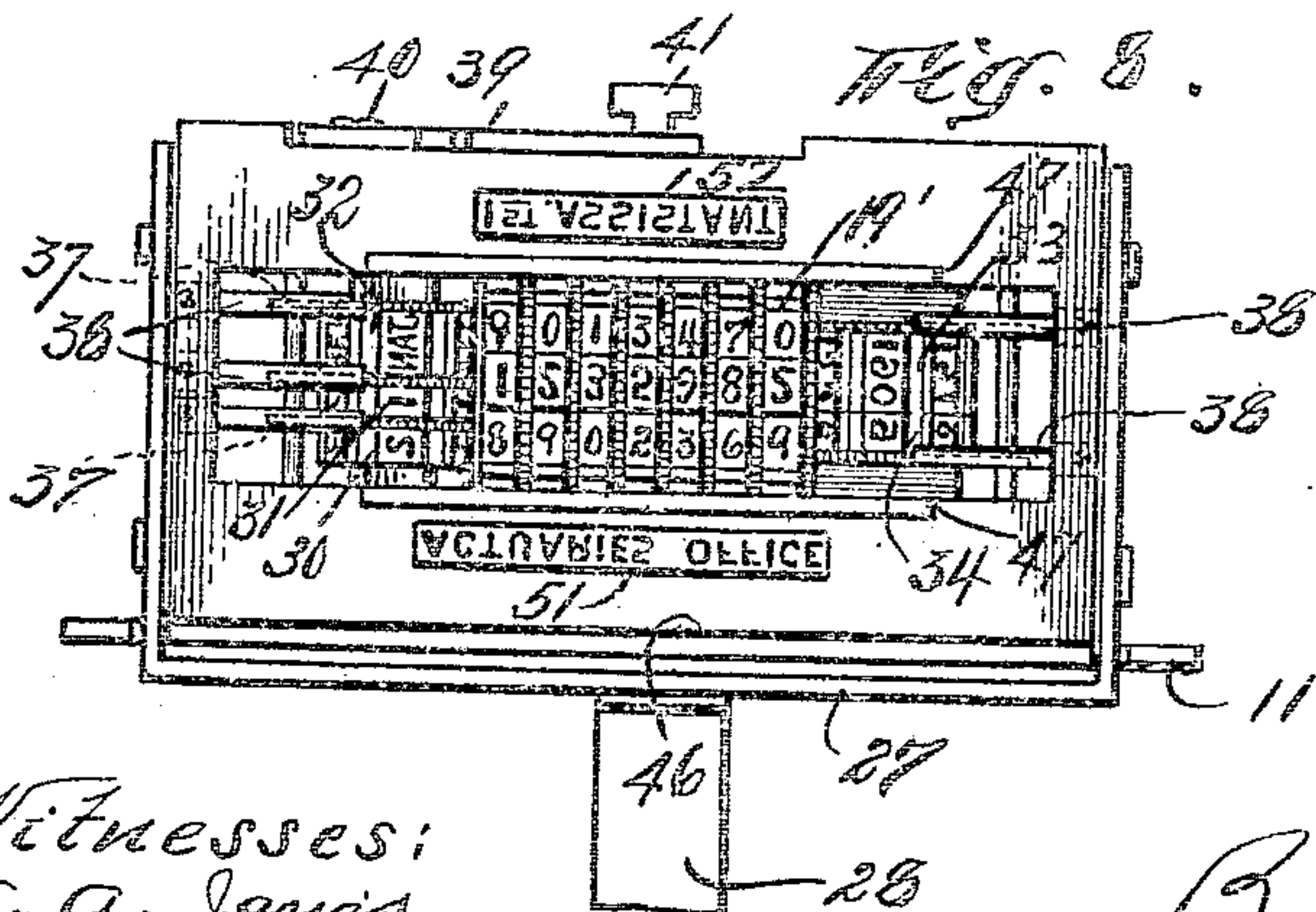
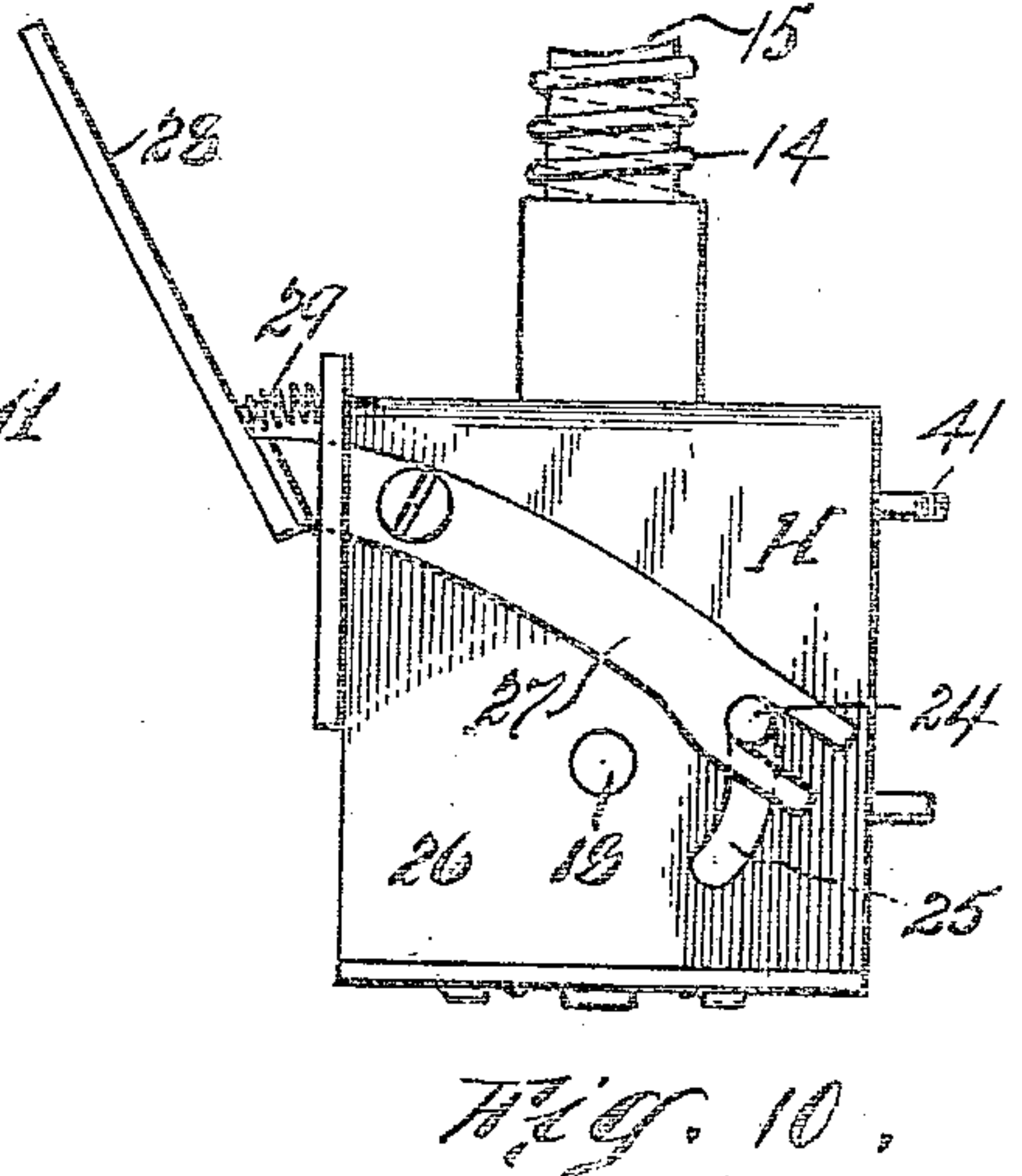
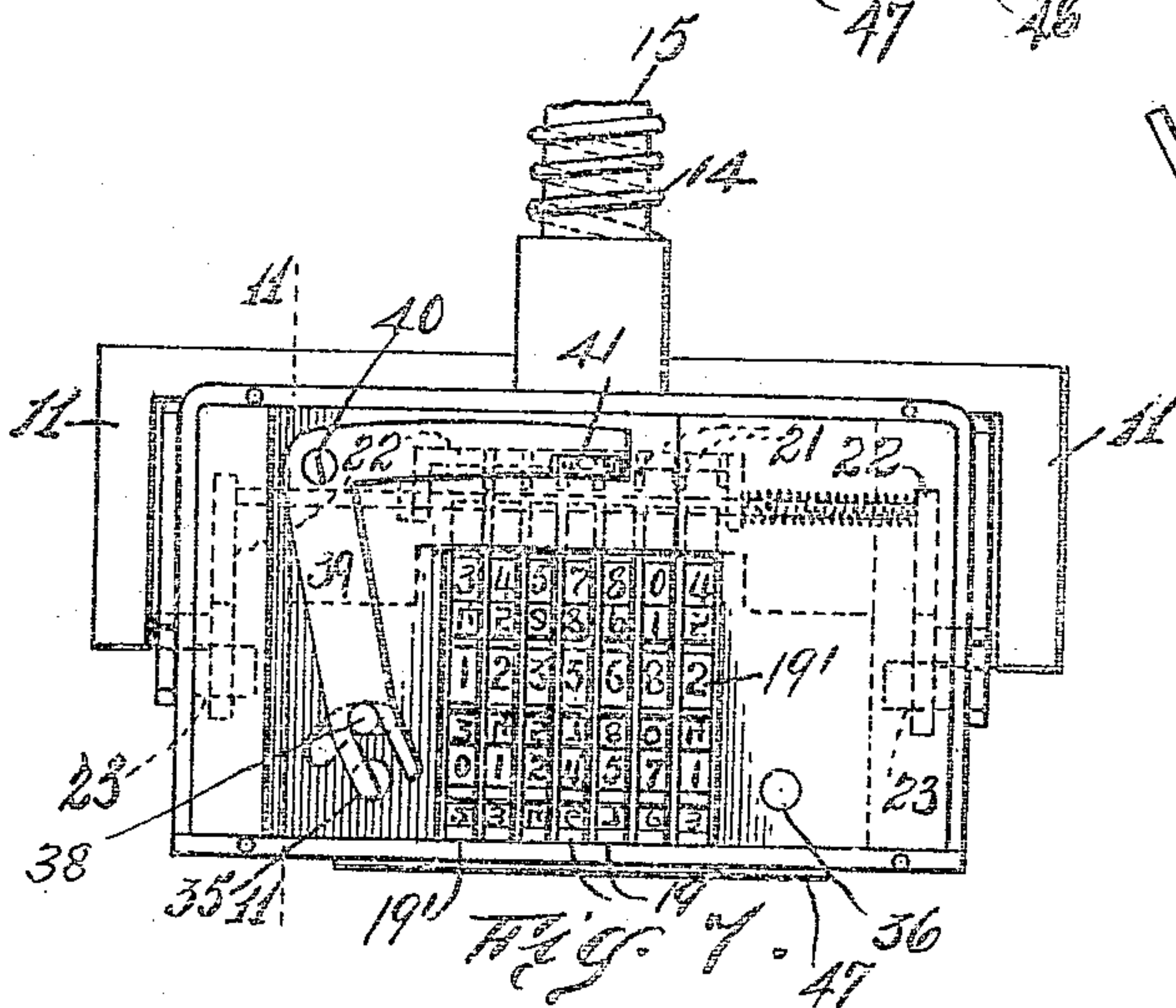
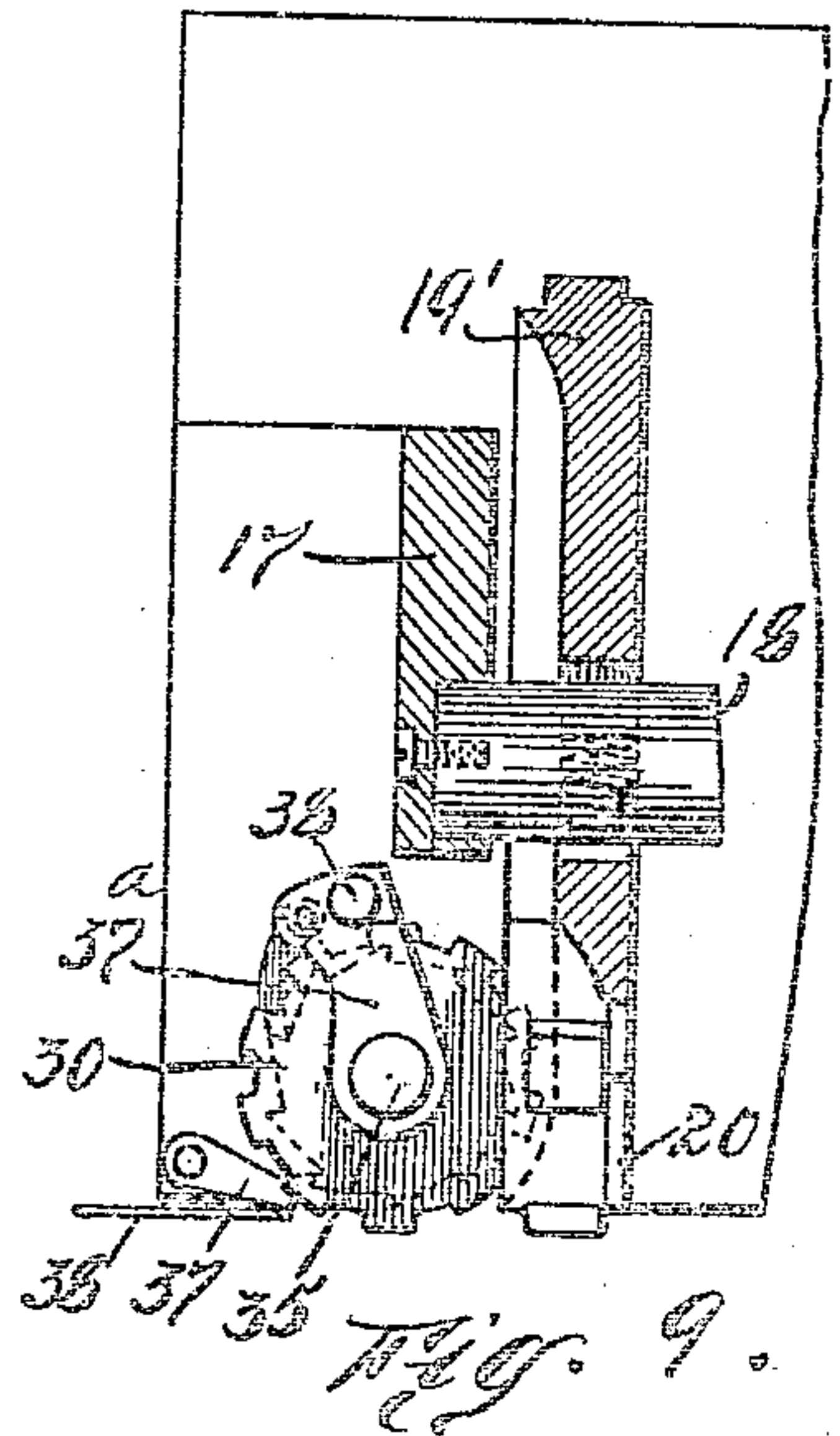
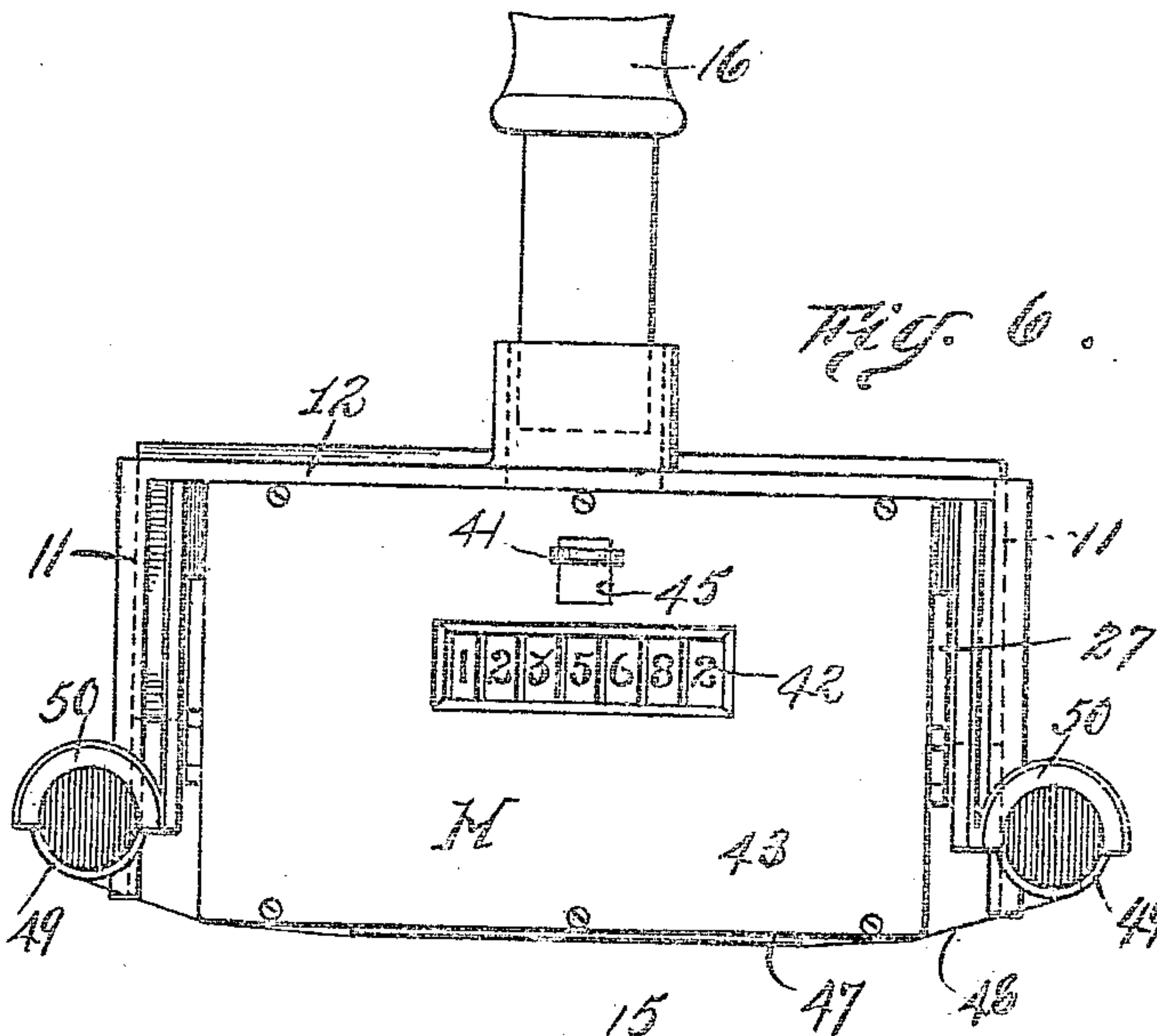
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

BENJAMIN B. CONRAD, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN NUMBERING MACHINE COMPANY, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

NUMBERING-MACHINE.

953,819.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed July 30, 1909. Serial No. 510,365.

To all whom it may concern:

Be it known that I, BENJAMIN B. CONRAD, a citizen of the United States, residing at the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Numbering-Machines, of which the following is a clear, full, and exact description.

The object of this invention is to provide an improved numbering machine, in which there is carried a plurality of lines of type on independent shafts.

The particular machine shown and described herein is one known as a combined dater and numberer.

A further object is to provide such a machine in which the plurality of lines of type is located upon wheels, one set of such wheels being at an angle, preferably at a right angle, to another set of wheels.

A further object is to so locate, and so proportion the wheels of one set, which is at an angle to another set, that the lines of printed matter produced by the machine, although at an angle to each other, and although produced by wheels, will be located as close together as is possible, and thus reduce the size not only of the machine, but of the inscription, which is printed thereby. In order to accomplish this last effect I preferably provide an undercut or reclosed side to an end wheel of one of the sets into which the type characters of another set may enter. In order to get the different lines of type more closely together, I prefer in most instances to provide the undercut wheel of a size much larger than the wheels which occupy a position within the undercut.

In carrying out this invention, it will be understood that it relates to machines with any known type of inking device, although in the present specification I have shown the inking device to be a ribbon inking device. It will be apparent that a machine of this character may be made with its own independent U frame, which is well known, and common in the art, but in this specification I have preferred to show the machine as mounted on an auxiliary frame of some weight, provided with a jaw, into which the paper may be inserted for printing, known in the art as a platform machine. In carrying out this invention, I prefer also to provide a visible indicator for the numbering

machine, such as shown in my own United States Patent #907,128, patented December 22nd, 1908, and assigned to my assignee in this case.

In the specification and drawings appended hereto, I have shown and described a manually operated lever for automatically advancing consecutive numbering wheels. I have also shown a manually operated lever for advancing some of the date wheels. It will be obvious that any other means, either automatic or non-automatic, lever control or otherwise, known in the art, may be substituted for such advancing mechanisms.

When the machine is a combined numberer and dater, as it is in the specific form shown in the present application, I prefer to provide manually controlled means for advancing those wheels which control the date. The mechanism for accomplishing this purpose may be that described in my United States Patent, dated July 20th, 1909, No. 928,740, or any other suitable mechanism. It will be noted in the present application, that the wheels for the year and for the month can be operated by hand or a wooden stylus, and are not provided with any mechanism upon the machine for securing such purpose. It will be noticed that the single lever for advancing the numbering wheels is, as shown in this application, only adapted for the consecutive advancement of the number as desired by the operator, but my invention is not limited to such particular mechanism.

The scope of my invention will be fully pointed out in the claim.

In the accompanying drawings: Figure 1 is a side elevation of a machine, and platform built according to my invention. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a detail view with parts omitted, showing in side elevation, a consecutive numbering wheel, and the adjacent date wheels. Fig. 4 is a sectional view on line 4—4, Fig. 3. Fig. 5 is a sectional view on line 5—5 Fig. 3. Fig. 6 is a front elevation enlarged, of the plunger head on my improved machine, the handle being partly broken away. Fig. 7 is a similar view to Fig. 6 with the ribbon mechanism, the front plate and the stationary casing removed to expose the parts. Fig. 8 is a bottom plan view of Fig. 7. Fig. 9 is an enlarged sectional view of part of the main shaft, and number wheel, and a front

elevation of the remainder of said wheel and second set of wheels, in this instance the dating wheels. Fig. 10 is an end elevation of the plunger casing, taken from the left hand side of Fig. 7. Fig. 11 is a section taken on line 11—11 Fig. 7. Fig. 12 is a plan of an impression made by a machine of this invention.

As shown in the accompanying drawings, particularly Figs. 1 and 2, I prefer to provide for a numbering machine of the character herein described, a standard or base 1, having a platform 2 provided with a platen 3 against which the paper may lie to receive the impression. The base 1 is preferably made with a long jaw 4, the upper member 5 of the base above the jaw being preferably in two parts, outer part 6 constituting the frame for the numbering machine, in which its number head is reciprocated, being pivoted at 7. I prefer also to lodge the two parts 5 and 6 permanently in the position shown in Fig. 1 by an ordinary bolt 8, which may be shot across the two parts in the bolt sockets 9 and 10 to keep the machine in position, shown in that figure, although any other suitable means for permitting the machine to occupy the position shown in Fig. 1 or to be swung up away from the platform 1 may be adopted.

The numbering machine proper consists of a plunger head H, which is provided with certain guides 11 traveling in slotted guide ways shown in Fig. 2 in the stationary casing 12 of the machine. The stationary casing may be secured by screws 13 to the upper and outer portions of the frame 6. The plunger head is normally held in upward position, that position shown in Fig. 1 by a spring 14 (see Fig. 7) common in the art, and the post 15 surrounded by the spring 14 is secured to the reciprocating head H, a suitable wooden handle 16 being provided for the downward reciprocation of the plunger head. Within the plunger head and carried in suitable supports 17, there is provided a main shaft 18 carrying a series of number wheels, seven in the present instance, represented by the characters 19 and 19'. The end wheels 19' of this set of wheels are provided with a dished outer side for a purpose hereinafter to be described. Each wheel 19 and 19' carries the usual ratchet teeth 20, which are engaged by suitable pawls 21 of a pawl swing 22, which pawl swing is shown in dotted lines in Fig. 7 and partially in dotted lines in Fig. 11, and is pivoted at 23 to the plunger head. A pin 24 extends through a slot 25 in the side plate 26 of the plunger head, and is engaged by the forked end of a lever 27 provided with a handle 28.

The pawl swing, pawls and lever are normally maintained in the position of Fig. 10 by a spring 29 bearing against the guide

plates 11 of the plunger head, and against the operating handle 28. Such operating handle, wheels and operating devices are, and have been for years, known as lever mechanism for manual operation of numbering wheels. At the side of each wheel 19' and entering into the dished out part of the same, at each end of the set of numbering wheels first described, are wheels 30, 31, 32, 33 and 34, wheels 33 and 34 being shown at the right of the first set of wheels, wheels 30, 31 and 32 being at the left hand of the first set of wheels. These wheels are mounted respectively on shafts 35 and 36, and are free to rotate thereon save that they are held in printing position by detaining pawls 37 of ordinary and usual construction. Springs 38 control the detent pawls. The shafts 35 and 36 are pivoted in the plunger head H as shown particularly in Figs. 7 and 9. The wheels 30 and 31 are the date wheels, and are each provided with date wheel advancing ratchets, such as shown in my patent of July 20th, 1909, which, in view of their intricacy are not particularly indicated in this case, having been clearly shown in the aforesaid patent. The pawl swing 37^a for the wheels 30, and 31, is provided with an extending pin 38 for engagement with a bell cranked lever 39 pivoted at 40 to the plunger head, and provided at its free end with an extending finger 41 for operation by the user of the machine to cause the ready advance of the date wheels, as may be desired.

I prefer that each of the wheels 19 and 19' carry not only printing characters as is usual, but indicating characters located between rows of printing characters on each wheel. These characters 42 will appear in a face plate of the machine 43, so that the user of the machine may know the serial number at which the machine is then set. An aperture 45 is provided with the same face plate 43, through which the finger piece 41 of the date lever projects. A gage plate 46 is secured beneath the machine, and is apertured for the appearance of the printing characters. On each side of the aperture I prefer to provide raised ridges 47, so that a ribbon 48 passing over the characters will not be in contact therewith, excepting during an impression. The ribbon 48 is mounted on suitable spools 49 on each side of the reciprocating plunger head H in suitable supports 50. The gage plate may carry dies 51 and 52 containing any desired reading matter, and additional dies, as desired, may be located at any other part of the gage plate as will be apparent. Fig. 12 shows a sample impression, such as will be made by a machine of this character.

As shown in Figs. 3, 4 and 5, by dishing out the wheels 19' I am enabled to bring the printing character 53 of the wheel 32

nearer to the printing character of the end wheel of the consecutive numbering wheels. It will be apparent from these figures that the extreme outside of the dating wheels
 5 will have their characters enter farther into the dished recess than will the central characters. This is indicated in the figures described, and is of importance in keeping the size of a machine of this character in
 10 the smallest possible compass. As I have shown in this case, my machine is a combination of consecutive numbering and dating machines. If desired, more than one consecutive set of numbers could be used in
 15 place of the dating wheels, and the date wheels might be substituted for the printing wheels, and vice-versa, all within the skill of a mechanic in this art, and that the mechanism for advancing the wheels might be
 20 any of the varied mechanism well known in the art.

In carrying out this invention, details of construction may be varied from those shown, and yet the essence of the invention
 25 be retained; some parts might be employed without others, and new features thereof might be combined with elements old in the art in diverse ways, although the herein described type is regarded as embodying sub-
 30 stantial improvements over such modifications.

As many changes could be made in the above construction, and many apparently widely different embodiments of the inven-
 35 tion could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall

be interpreted in an illustrative and not in a limiting sense. It is furthermore desired
 40 to be understood that the language used in the following claim is intended to cover all the generic and specific features of the invention herein described, and all statements
 45 of the scope of the invention which as a matter of language might be said to fall therebetween.

I claim as my invention:

A numbering machine comprising a frame, a reciprocating plunger head within
 50 the frame and provided with a gage plate on its under side having an opening there-through, means for reciprocating said plunger head, a ribbon inking device for the machine, a horizontal shaft mounted on
 55 the plunger head, a set of number printing wheels rotatable upon said shaft, both end wheels of said set being undercut on their outer faces, a set of printing wheels at each
 60 end of said set of number printing wheels rotatably mounted on shafts at right angles to the number wheel shaft and projecting into the undercut faces of the end number
 65 printing wheels and through said opening in the gage plate, the printing surfaces of the several number wheels being in the same plane, and ribs on said gage plate at
 70 the sides of said opening to hold the inking ribbon from contact with the printing wheels.

Signed at Brooklyn New York this 28 day of July 1909.

BENJAMIN B. CONRAD.

Witnesses:

LYDIA SCHENCK,
 MAUDE V. WILLIAMS.