

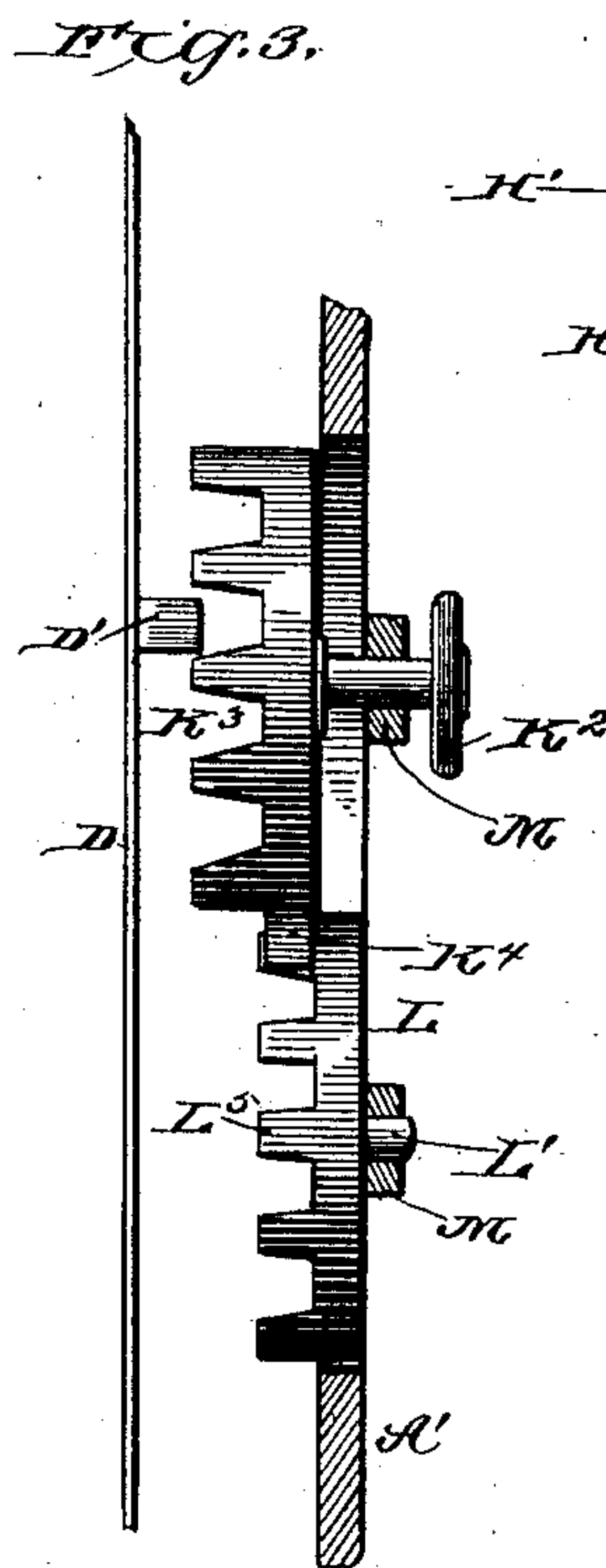
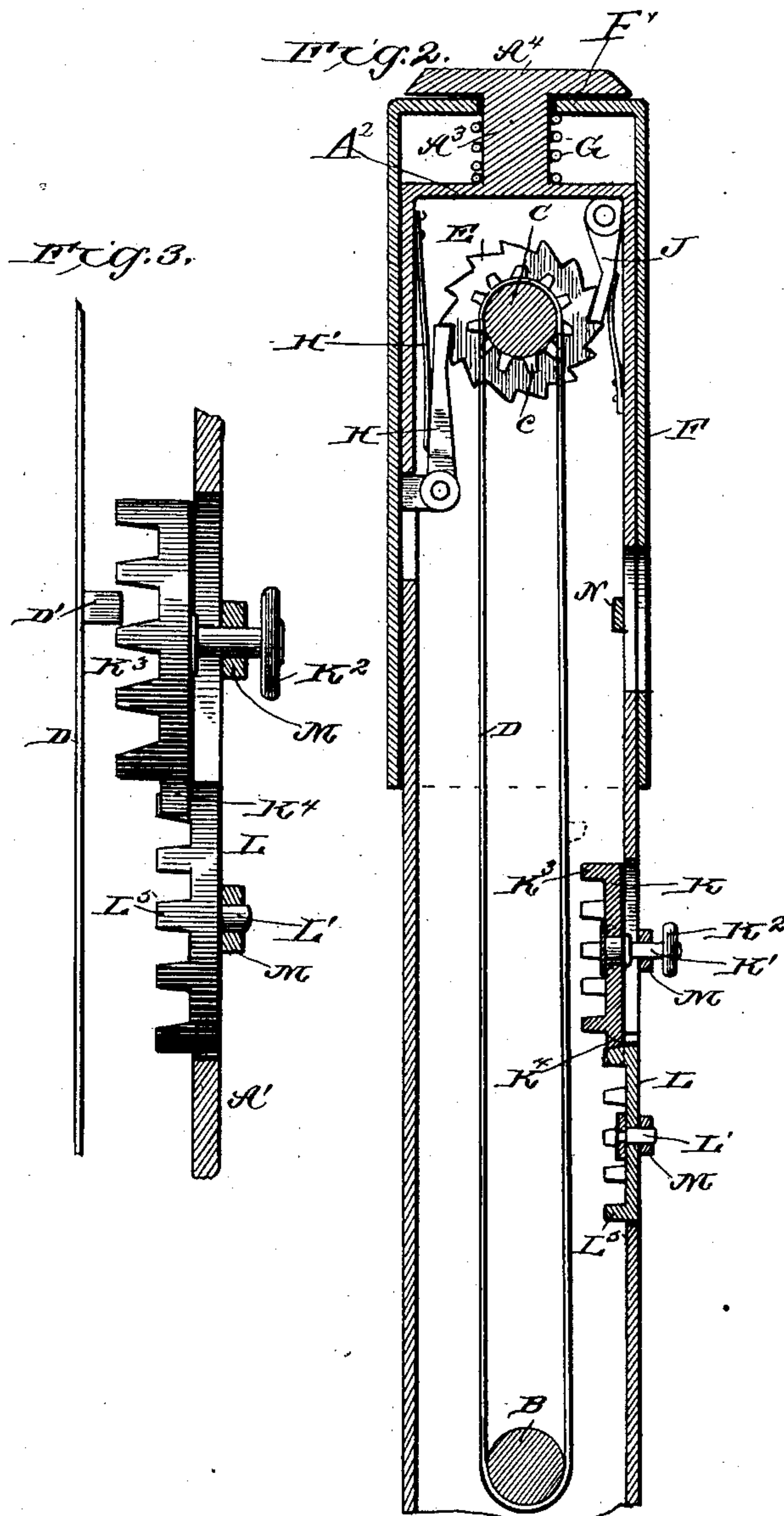
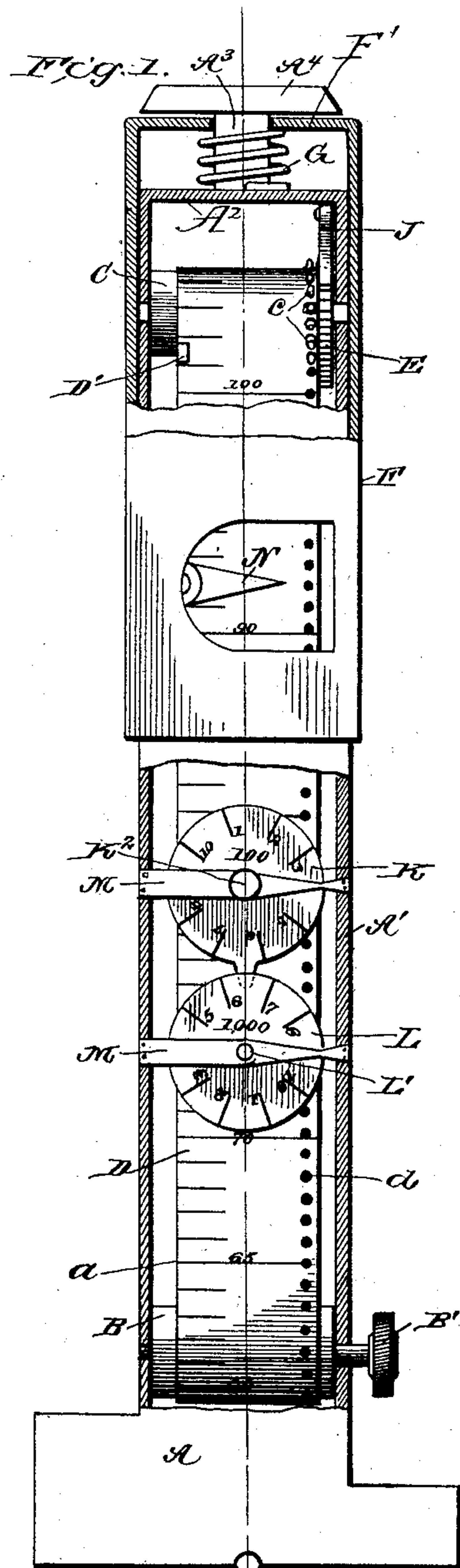
(No Model.)

W. H. JOHNSON.

REGISTERING POST OFFICE STAMP.

No. 367,714.

Patented Aug. 2, 1887.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM H. JOHNSON, OF STERLING, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
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## REGISTERING POST-OFFICE STAMP.

SPECIFICATION forming part of Letters Patent No. 367,714, dated August 2, 1887.

Application filed July 20, 1886. Serial No. 208,568. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. JOHNSON, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Post-Office Stamps and Registers; and I 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to a post-office stamp and register, and has particular reference to those offices in which it is necessary to count the letters as the stamps thereon are canceled; and the object of my invention is to automatically enumerate such letters in the operation of stamping them.

In the drawings, Figure 1 is a front elevation, partly in section, of a machine embodying my invention. Fig. 2 is a vertical section in a line perpendicular to Fig. 1. Fig. 3 is a detail of the means for rotating the dials.

A is the main stem, provided on its lower face with two stamps, one to cancel the postage-stamp, and the other to print the usual impress of name of post-office and date. The upper portion, A', of the stem A is a hollow cylinder, and near the lower end of said stem is journaled therein transversely the roller B, and near the upper end of said stem A is in like manner journaled a corresponding roller, C. Inside of the hollow stem A, and carried on the rollers B C, is the endless metallic ribbon D. Upon the latter are indicated degrees *a*, at equal intervals and extending entirely around its outer surface and aggregating one hundred. These degrees can be marked numerically, or each fifth one can be marked in an arithmetical progression of five.

The roller C is provided with peripheral spurs or sprockets *c*, and in the edge of the ribbon D are holes or recesses *d*, in which the sprockets *c* engage, and thus secure the progression of the ribbon D coincidently with the rotation of the roller C. The roller C has also rigidly attached thereto, within the stem A, a ratchet-wheel, E, of such size, and having

ratchets of such frequency, that the movement of each ratchet to the position of the next preceding one will advance the ribbon D one of the degrees thereon. On the upper end, A', of the stem A is formed integral therewith the top A<sup>2</sup>, the neck A<sup>3</sup>, and the head A<sup>4</sup>.

F is a sleeve or shell which incloses and is adapted to reciprocate on the upper portion, A', of the stem A. The lower end of the shell F is open, while its upper end or flange, F', encircles the neck A<sup>3</sup> and plays between the top A<sup>2</sup> and head A<sup>4</sup> of the stem A. The shell F extends entirely around the stem A, has a smooth exterior, is adapted to be grasped by the hand of the operator, and when the stamp is brought down upon the letter, in the process of stamping the letter, the sleeve F slips down the exterior of the stem A between the top A<sup>2</sup> and head A<sup>4</sup>, the latter two points acting as stops for said shell.

A coiled spring, G, is placed around the neck A<sup>3</sup> between the top A<sup>2</sup> and head A<sup>4</sup>, and operates to carry the shell F when the stamp is raised from the letter up against the under side of the head A<sup>4</sup>. A pawl, H, is pivoted to the inner side of the shell F, with its point upward and in such relation to the ratchet E as that the upward throw of the shell F causes said pawl to engage and rotate the ratchet E the width of one of the ratchets thereon. A spring, H', attached to the shell F and pressing against the back of the pawl H, holds the latter in position to engage the ratchet E. Sufficient of the side of the stem A is cut out to allow of the protrusion and movement of the pawl H and spring H'. Each upward movement of the pawl H through the medium of the ratchet E and roller C advances the ribbon D one degree.

It is obvious that the pawl H can be placed at the opposite side of the ratchet E and be made to actuate said ratchet on the downward movement of the shell F. A dog, J, seated in the stem A opposite and reversely to the pawl H, engages the ratchet E and prevents its retrogression.

K and L are two dials seated pivotally on the front of the stem A, as follows:

The front half of the stem A is cut out at the location of said dials, and cross-braces M fastened across said stem.



The dials are seated in such cut-away places and journaled in said braces by projecting their respective axles  $K'$  and  $L'$  outwardly through such braces. On the outer end of the shaft of the upper dial,  $K$ , is formed the knob  $K^2$ , for convenience in setting the dials. Each dial is divided into ten equal degrees, marked progressively near its periphery from one to ten, inclusive. One-half of the cross-braces  $M$  is formed quite narrow and serves as an indicator over each dial.

A trip,  $D'$ , is formed on the ribbon  $D$  above the one hundredth degree, which engages at each complete revolution of the said ribbon one of the ten spurs  $K^3$ , formed equidistant in a circular series on the back of the dial  $K$ , and thereby rotates the latter the distance between the figures on its face. The spurs  $K^3$  are arranged circularly, and the trip  $D'$  is placed near enough to the edge of the ribbon  $D$  and made so narrow as to engage only that spur  $K^3$  which extends nearest to the side of the stem  $A$ .

On the back of the dial  $L$  is formed around near its periphery a circular series of cogs,  $L^5$ , and on the edge of the dial  $K$  is formed a spur,  $K^4$ , which at each complete revolution of the dial  $K$  engages one of the cogs  $L^5$  and rotates the dial  $L$  one of the latter's degrees.

The dial  $K$  is placed the thickness of the dial  $L$  farther into the stem  $A$ , so that the spur  $K^4$ , projected on the plane of the dial  $K$ , shall be on the plane of the cogs  $L^5$ .

$N$  is an indicator fastened on the inner side of the front wall of the stem  $A$  at a suitable distance above the dial  $K$ . The front wall of the stem  $A$  and that of the shell  $F$  are cut away at the point of said indicator, so as to create an opening in said stem and shell equal to five or more of the degrees  $\alpha$ , marked, as aforesaid, on the ribbon  $D$ , whereby it may be readily seen at any time which of the degrees on said ribbon is under said indicator; or, in other words, such opening in the stem  $A$  and shell  $F$  renders it feasible at all times to perceive the position and progress of said ribbon relative to said indicator. The reference-letter  $A^2$  denotes the top or flange, which is bent in beneath the head  $A^1$ .

The operation of my invention is as follows: The operator grasps the instrument around the shell  $F$  and brings it down upon the letter. This causes the downward movement of said shell, slipping on the stem  $A$ , and withdraws the pawl  $H$  from the ratchet  $E$ . The spring  $H'$  then throws said pawl inward sufficient to engage the next ratchet, when, the stamp being raised, the spring  $G$  throws the shell  $F$  up again, (or the stem  $A$  down,) and in this upward movement the pawl  $H$  engages the said next ratchet-tooth on the ratchet  $E$ ,

and rotates the latter sufficient to progress the ribbon  $D$  one degree. When said ribbon has made one entire revolution, the trip  $D'$  engages one of the spurs  $K^3$  on the reverse of the dial  $K$ , and moves the latter one degree. When the dial  $K$  has made one entire revolution, its spur  $K^4$  engages one of the cogs  $L^5$  on the dial  $L$ , and rotates the latter one degree. The ribbon  $D$ , therefore, at the indicator  $N$ , denotes the number of letters stamped as to fractions of a hundred, the dial  $K$  the number of hundreds, and the dial  $L$  the number of thousands up to ten thousands, when the instrument begins again. It is obvious that each of the said registers must be set to begin at one. An outside button,  $B'$ , on the roller  $B$  affords the means of setting the instrument.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The combination of the stem  $A$ , shell  $F$ , adapted to slide on said stem, rollers  $B$  and  $C$ , ribbon  $D$ , carried on said rollers, the ratchet  $E$ , attached to one of said rollers, and pawl  $H$ , attached to said shell  $F$  and adapted to intermittently rotate said ratchet, substantially as shown, and for the purpose described.

2. The combination of the stem  $A$ , the shell  $F$ , adapted to close upon said stem, rollers  $B$  and  $C$ , journaled in said stem, ribbon  $D$ , carried on said rollers, ratchet  $E$ , attached to one of said rollers, pawl  $H$ , adapted to engage said ratchet, and spring  $G$ , substantially as described, and for the purpose mentioned.

3. The combination, in a hand-stamp, of a main stem,  $A$ , rollers  $B$  and  $C$ , journaled in said stem, said roller  $C$  being provided with ratchet  $E$ , ribbon  $D$ , carried on said rollers and marked in degrees, as stated, shell  $F$ , adapted to be reciprocated on said stem  $A$  and provided with pawl  $H$ , and mechanism, substantially as shown, for indicating the progress and position of said ribbon, for the purpose described.

4. The combination, in a hand-stamp, of a main stem,  $A$ , and rollers  $B$   $C$ , said roller  $C$  being provided with the ratchet  $E$ , the ribbon  $D$ , provided with trip  $D'$  and marked substantially as indicated herein, a shell,  $F$ , adapted to close on the stem  $A$  and provided with means for actuating said ratchet, cross-braces  $M$ , dial  $K$ , provided with spurs  $K^3$  and  $K^4$ , and dial  $L$ , provided with cogs  $L^5$ , substantially as shown, and for the purpose specified.

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

WILLIAM H. JOHNSON.

Witnesses:

ADAM SMITH,

ROSWELL CHAMPION.