

(No Model.)

4 Sheets—Sheet 1.

G. WEITZEL.

CASH DRAWER AND REGISTER.

No. 345,092.

Patented July 6, 1886.

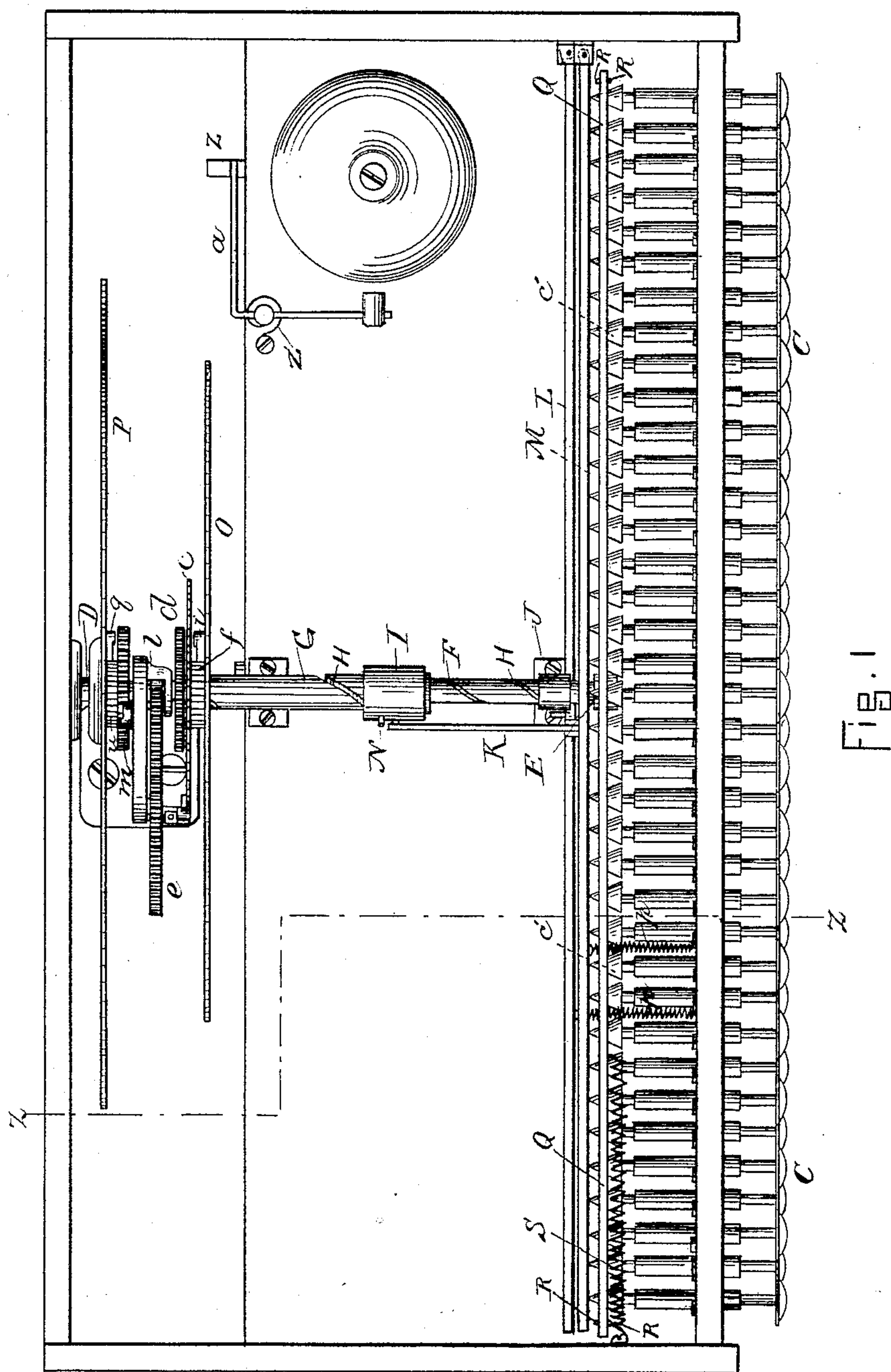


Fig. 1

WITNESSES.
H. Brown
J. Loomis.

INVENTOR.
George Weitzel.
by Wright, Brown & Crossley,
attys

(No Model.)

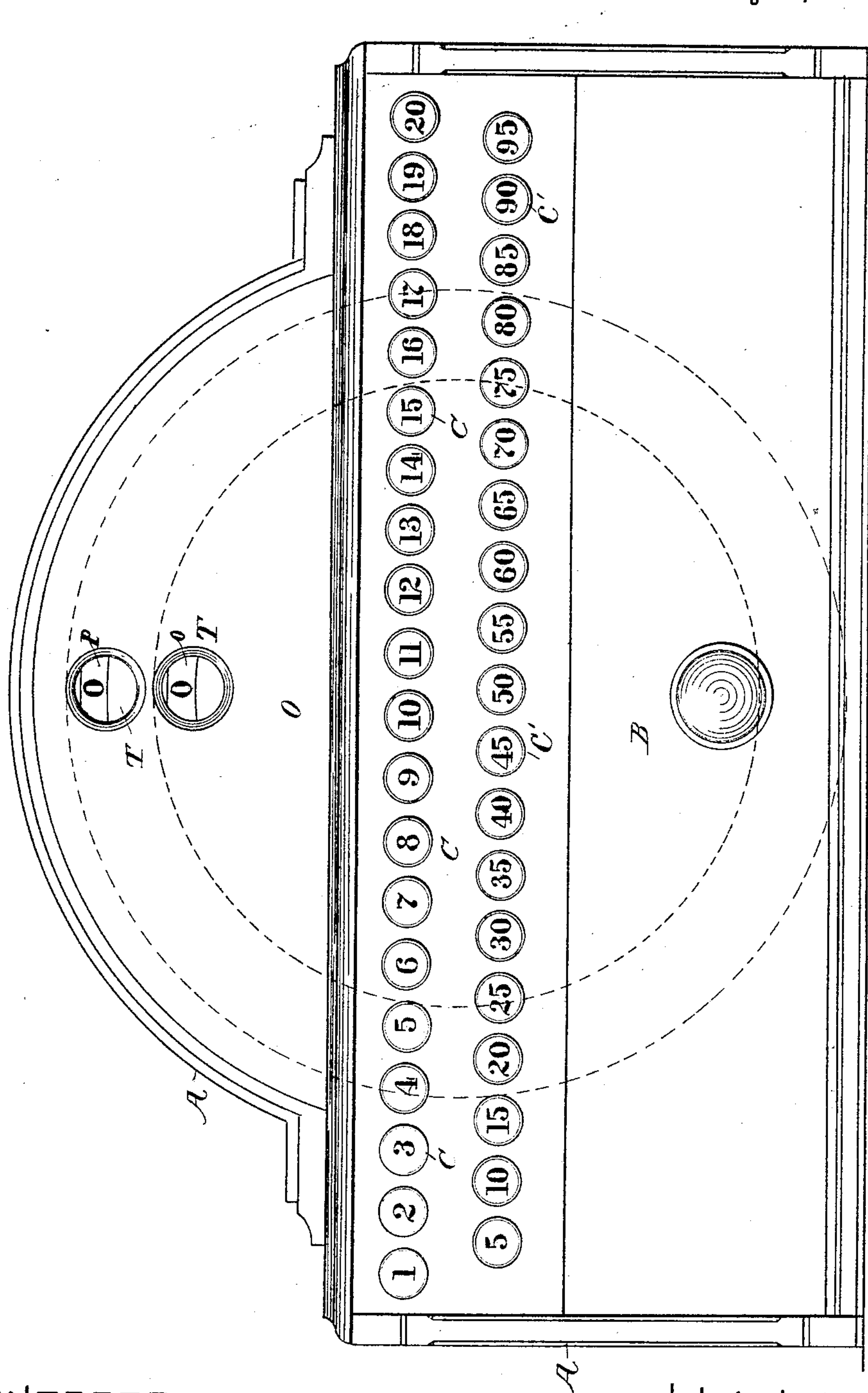
4 Sheets—Sheet 2.

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4 Sheets—Sheet 3.

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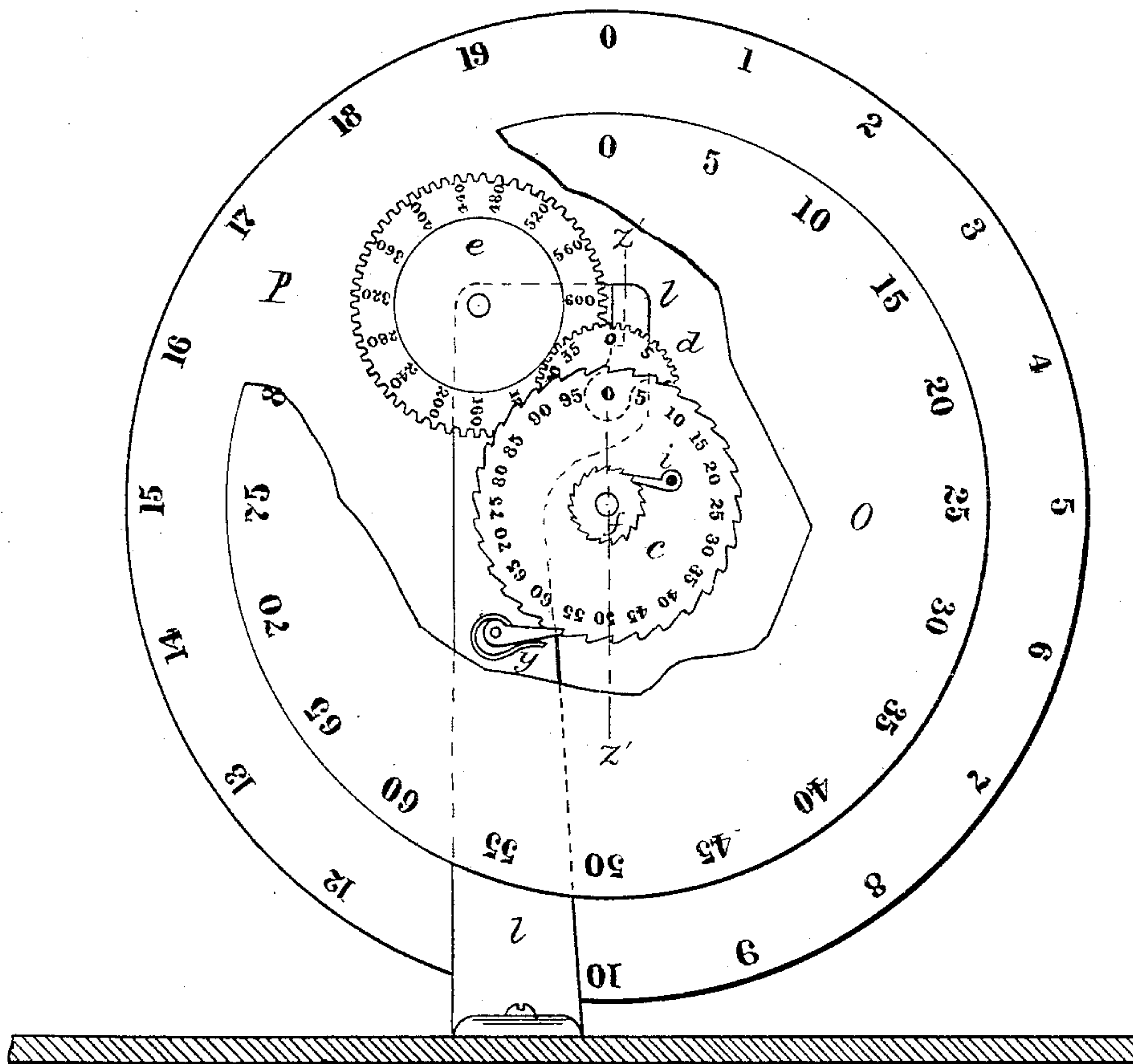


Fig. 3.

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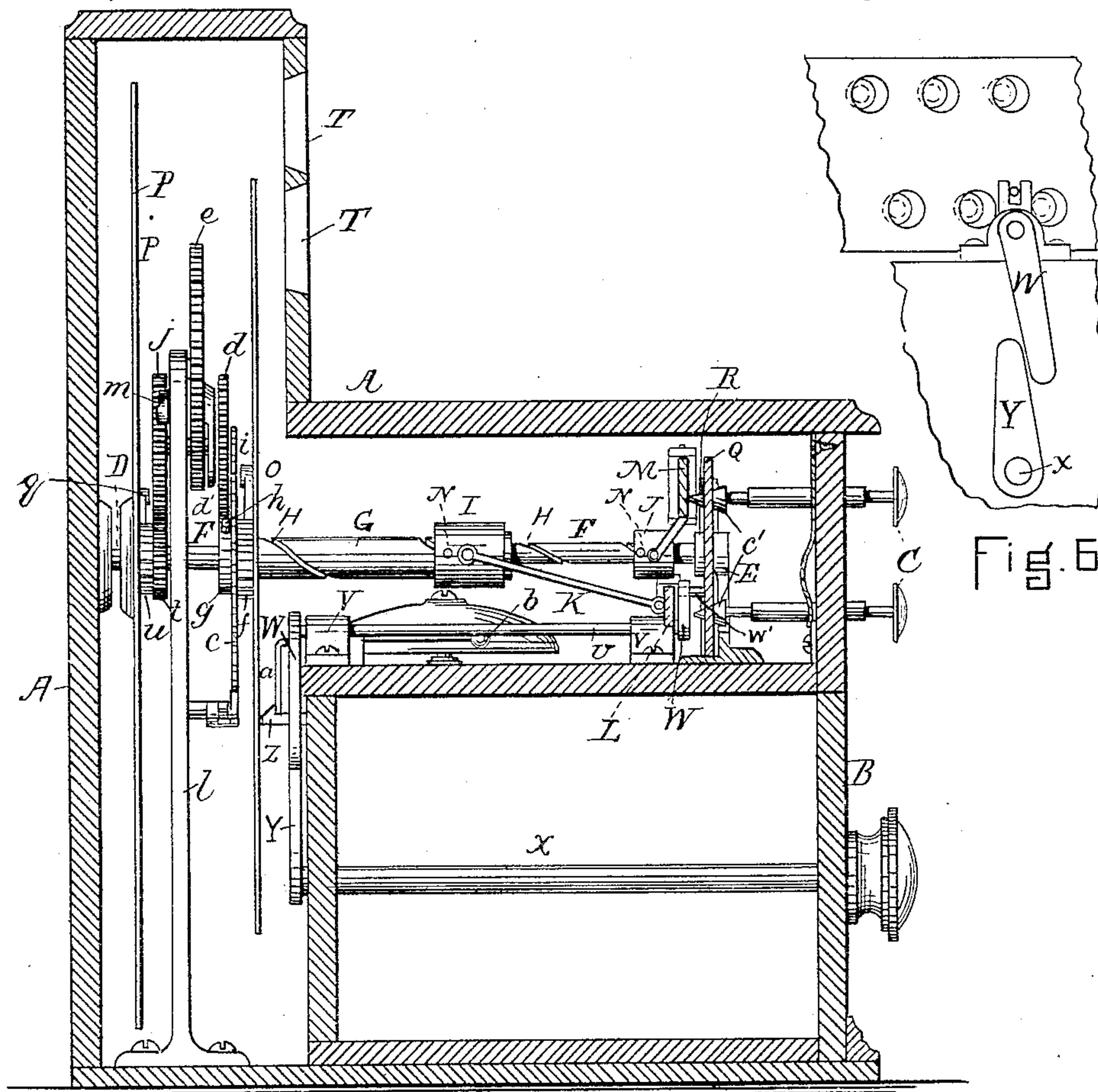


Fig. 4.

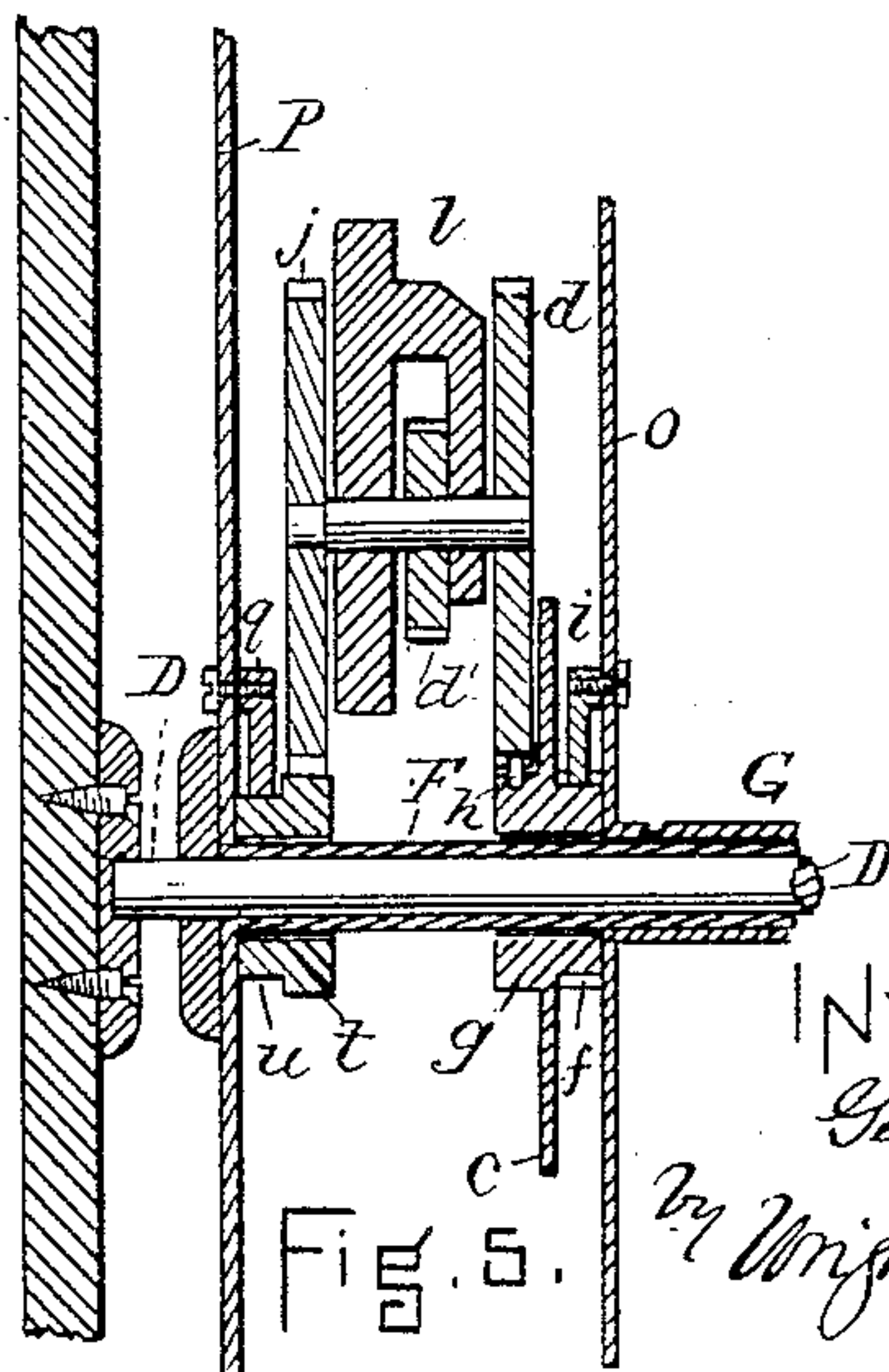


Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE WEITZEL, OF TOLEDO, OHIO.

CASH DRAWER AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 345,092, dated July 6, 1886.

Application filed March 4, 1886. Serial No. 194,012. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WEITZEL, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful
5 Improvements in Cash-Registers, of which the following is a specification.

My invention relates to cash-registers; and the objects of my invention are to provide an improved automatic-registering device which
10 will keep an accurate register of the amount of cash taken by a receiver of money during the day, so that it can be seen at any instant without any figuring or counting. I attain these objects by the mechanism illustrated in
15 the accompanying drawings, in which—

Figure 1 is a top plan view of my invention, the upper covering being removed. Fig. 2 is a front view of the same. Fig. 3 is a front view of the registering devices proper, parts
20 being represented as broken away. Fig. 4 is a vertical section on the line $z z$, Fig. 1. Fig. 5 is a vertical section on the line $z' z'$ of Fig. 3. Fig. 6 is a detail view hereinafter referred to.

25 Similar letters refer to similar parts throughout the different views.

The case A is divided into two parts, the lower part being for the drawer B and the upper part for the mechanism which works
30 the register. Through the front of the case are placed a series of push-buttons, C C', the top row, C, being numbered from 1 to 20, and represents dollars, and the bottom row, C', is numbered from 5 to 95, representing
35 cents. To the back of the case A is fastened one end of a steel shaft, D, (shown in Figs. 4 and 5,) the other end of which is supported by the pillow-block E. Over the shaft D is fitted a metal tube, F, and over the
40 tube F is fitted another piece of tube, G, which is about half the length of tube F. The tube F has a spiral groove, H, cut into its front end for about one-half its length, and the tube G the same its entire length. Over the tubes F
45 and G are respectively fitted sliding sleeves J and I. The sleeve I is connected by a rod, K, to the swinging lever L, and the sleeve J is connected in the same manner to the upper swinging lever, M. Levers L and M are piv-
50 oted by one of their ends—in the present instance the right-hand end, as viewed in Fig.

1—to the frame of the register, their opposite ends being free to be swung upward, their pivotal points thus constituting their axes. In both of the sleeves I and J are put pins
55 N N, so as to protrude from the sleeve far enough to enter the grooves H H, so that when the sleeve is moved back and forth it will revolve the tube. The tube G is fastened to a disk, O, preferably of tin spaced off into
60 twenty divisions of a circle, and numbered from 0 to 95, which represent cents; and the tube F is fastened to a similar disk, P, which is somewhat greater in diameter, and is spaced into twenty divisions, and numbers from 1 to
65 20, which represent dollars.

Between the front of the case A and the end of the tube F is a plate, Q, extending almost the entire distance across the case, held in po-
70 sition by rods or pieces of wire R, arranged or stretched vertically in the case on both sides of each end of plate Q. The said plate is held a little to one side (to the left in Fig. 1) by a spring, S, having one end fast-
75 ened to the plate and the other to the side of the case. The plate is perforated with holes considerably larger than the push-but-
ton shanks, and is held a little to one side of the line of the longitudinal movement of the
80 shank. The inner ends or heads c' of the push-button shanks are pointed, and a small distance from their ends are turned down to a small diameter, which gives them an arrow or
85 a pyramidal shape. The buttons all have when operated the same extent of stroke, and are of such construction that their inner ends or heads and shanks may be passed through
90 the perforations in plate Q; but being located at different distances from the axis of the swinging levers L and M the inner arrow-shaped end of each button operating under
95 the lever and against the lower surface thereof moves the same a different distance. For example, if button 5 is pushed in, it moves the lever but a short distance, for it is farthest
100 from the axis of the lever, and turns the disk O only far enough to expose 5 to view through the opening T in the case. If the 50 button is pushed in, it moves the sleeve I half the length of the tube G, thereby turning the disk O half-
way around, and thus bringing 50 to view.

U is a shaft hung in pillow-blocks V V, with

an arm, W, on each end. The one on the front end has a slot (not shown) in its end, which engages a pin, W', in the plate Q, and the other one hangs down back of the drawer B. The drawer-pull is fastened to a rod, X, which passes through the entire drawer, having an arm, Y, fastened to the protruding end, which engages the arm W. On the back end of drawer is screwed a trip-finger, Z, which, when the drawer is pulled out, will engage the wire hammer-handle *a*, pulling the free end toward the front of the drawer for a short distance and then slip off, and the hammer *b* is then thrown back by a spring, Z, against the bell every time the drawer is opened, as will be understood by reference to Fig. 1.

Between the two disks O and P are three dials, *c*, *d*, and *e*. The dial *c* is divided into twenty divisions of a circle, and numbered from 0 to 95, which represent cents, the *d* dial into forty spaces, which represent dollars, and the *e* dial into fifteen divisions, each division representing forty dollars. The ratchet-wheel *f* and collet *g* are fast to the *c* dial. In the edge of the collet *g* is a pin, *h*. On the back side of the disk O is riveted a pawl, *i*. The said dial, ratchet-wheel, and collet are fitted so as to revolve easily on the tube F. The ratchet-wheel has twenty teeth, each tooth representing five cents. The dial *d* has forty teeth on its edge, each tooth representing forty dollars, and the dial *e* has one hundred and twenty teeth, each tooth representing five dollars. The dial *d* and gear-wheel *j* are both fast to an arbor that has a pinion, *d'*, at its center with eight teeth. On the front side of disk P is riveted a pawl, *q*, and between the said disk and support *l* is a ratchet-wheel, *u*, with twenty teeth, and a gear-wheel, *t*, with twenty teeth. On the back of the support *l*, near its top, is a pawl, *m*, which works on the teeth of the gear-wheel *j*, and on the front of said support another pawl, *y*, is riveted, which works on the edge of the dial.

The several pawls mentioned are of suitable or common form and construction, and may all be, for example, like pawls *i* and *y*. (Clearly shown in Fig. 3.) The function of the gearing mentioned is simply to insure the proper relative movements of the parts with which it is connected, as herein described, all as will be readily understood by those skilled in the art by reference to the drawings in connection with the description given.

Having described the construction of my recorder, I will proceed to describe its work-

ing. If the operator desires to register twenty-five cents, he pushes the 25 button, which revolves the disk O. The pawl *i* turns the ratchet-wheel *f* five teeth. When the arrow-head *c'* passes through the plate Q, it pushes it to one side, and when it is entirely through the plate springs in back of the head, thereby holding the whole mechanism still until the operator again desires to register the receipt of cash. The drawer-pull is then turned a little to the left, which throws the plate back and releases the button, and it is thrown back by the spring *r*. The spring *p* then draws the lever L back, thereby turning the disk O back to 0 again, the pawl *y* keeping the dial *c* in place. Every time the dial *c* turns around, the pin *h* in the collet *g* moves the dial *d* one notch, which is one dollar, and every time the dial *d* makes a revolution it registers forty dollars on the dial *e*. The working of the dollar-disk P is the same as I have already explained.

What I claim is--

1. The combination of shaft D, tubes F G, disks O P, sleeves I J, pivoted levers L M, rods connecting said levers with said sleeves, and push-buttons C, as set forth.

2. The combination of the shaft D, spirally-grooved tubes F G, disks O P, sleeves I J, provided with pins N to operate in the grooves of said tubes, pivoted levers L M, rods connecting said levers with said sleeves, and the push-buttons C, having the arrow or conical shaped heads *c'*, as set forth.

3. The combination of the shaft D, tubes F G, disks O P, sleeves I J, pawls *i* *q*, pivoted, respectively, to said disks, ratchet-wheels *f* *u*, disk *c*, provided with the collet *g*, having pin *h*, dial *d*, gear-wheel *j*, support *l*, pinion *d'*, and dial *e*, as set forth.

4. The combination, with the push-buttons provided with conical heads, of the plate Q, provided with the pin W', spring S, rod U, arms W, one of said arms being slotted to engage said pin, of the drawer B, having the pull and rod *x* connected thereto, and arm Y, adapted to engage the arm W opposite that co-operating with pin W', as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 3d day of February A. D. 1886.

GEORGE WEITZEL.

Witnesses:

P. HENAHAN,
CHARLES DODGE.