

(No Model.)

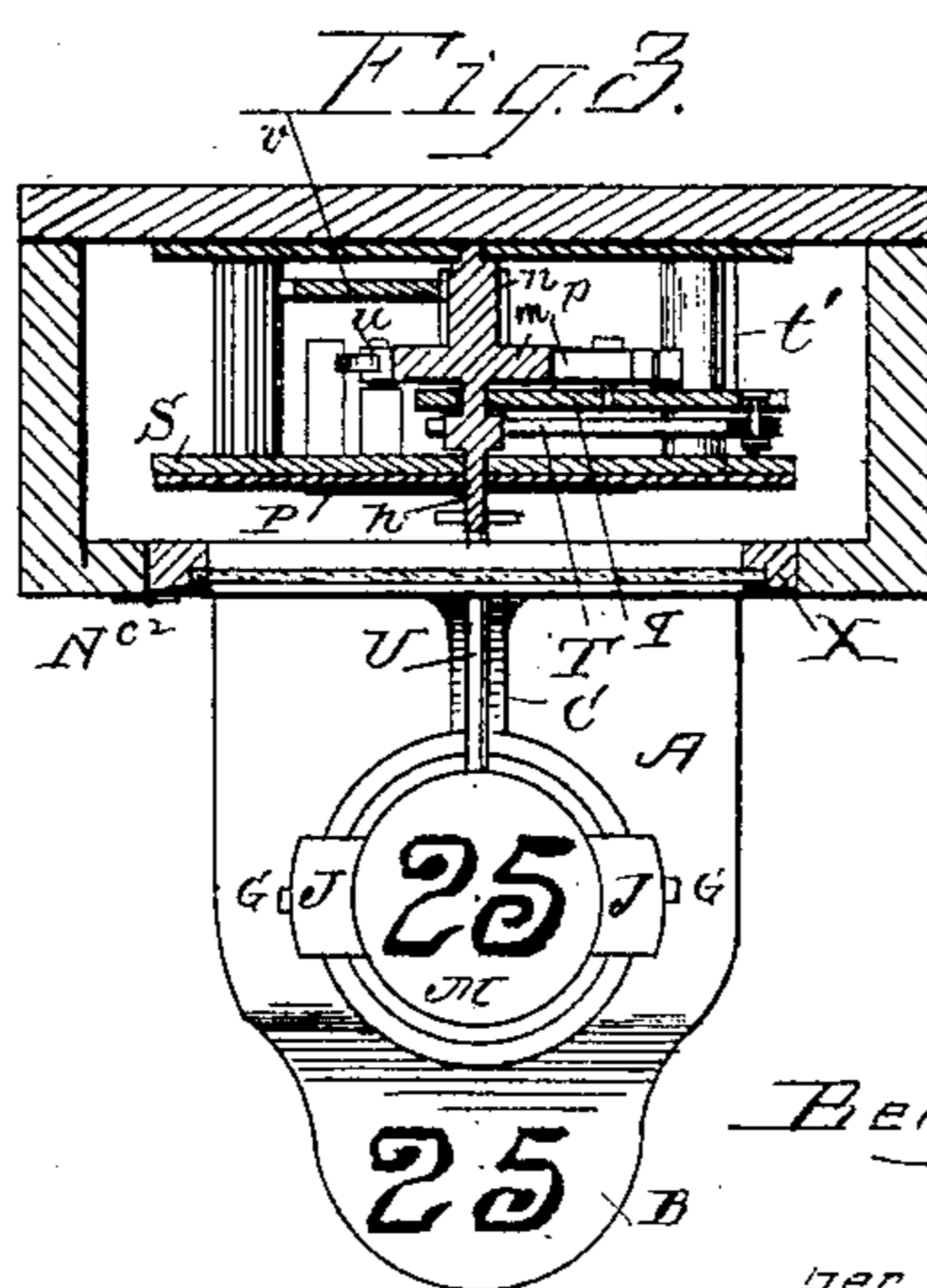
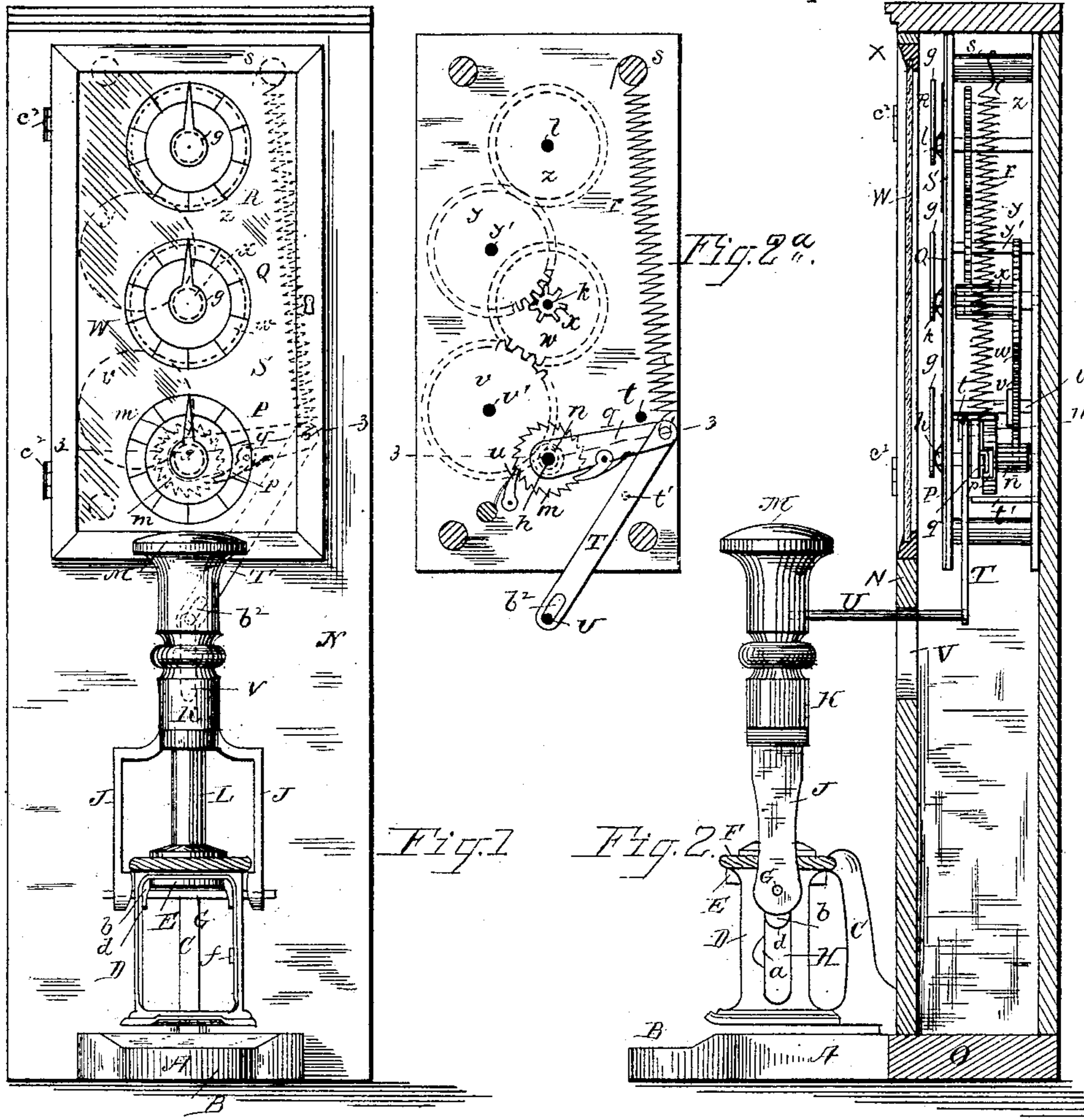
2 Sheets—Sheet 1.

B. P. ROBERTS.

REGISTERING APPARATUS FOR CHECK STAMPS.

No. 316,293.

Patented Apr. 21, 1885.



Witnesses

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J. J. Sullivan

Benj. P. Roberts,
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per

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Attorneys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

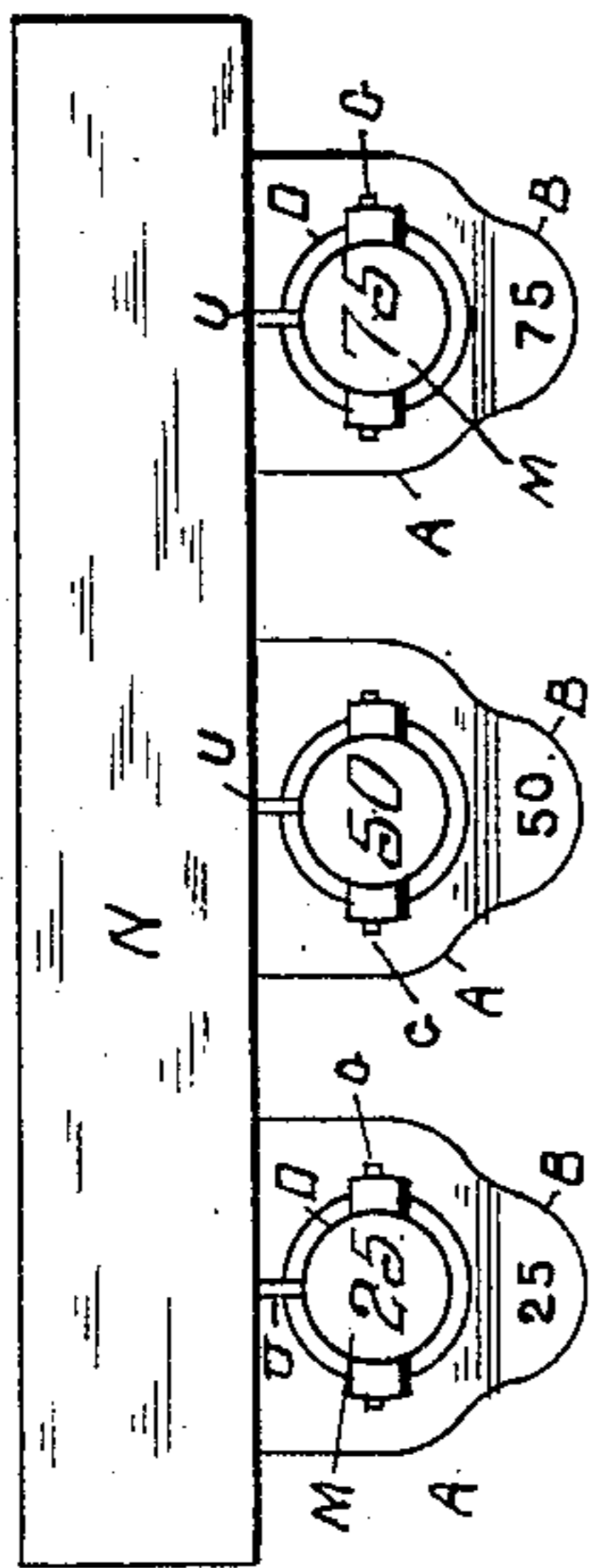
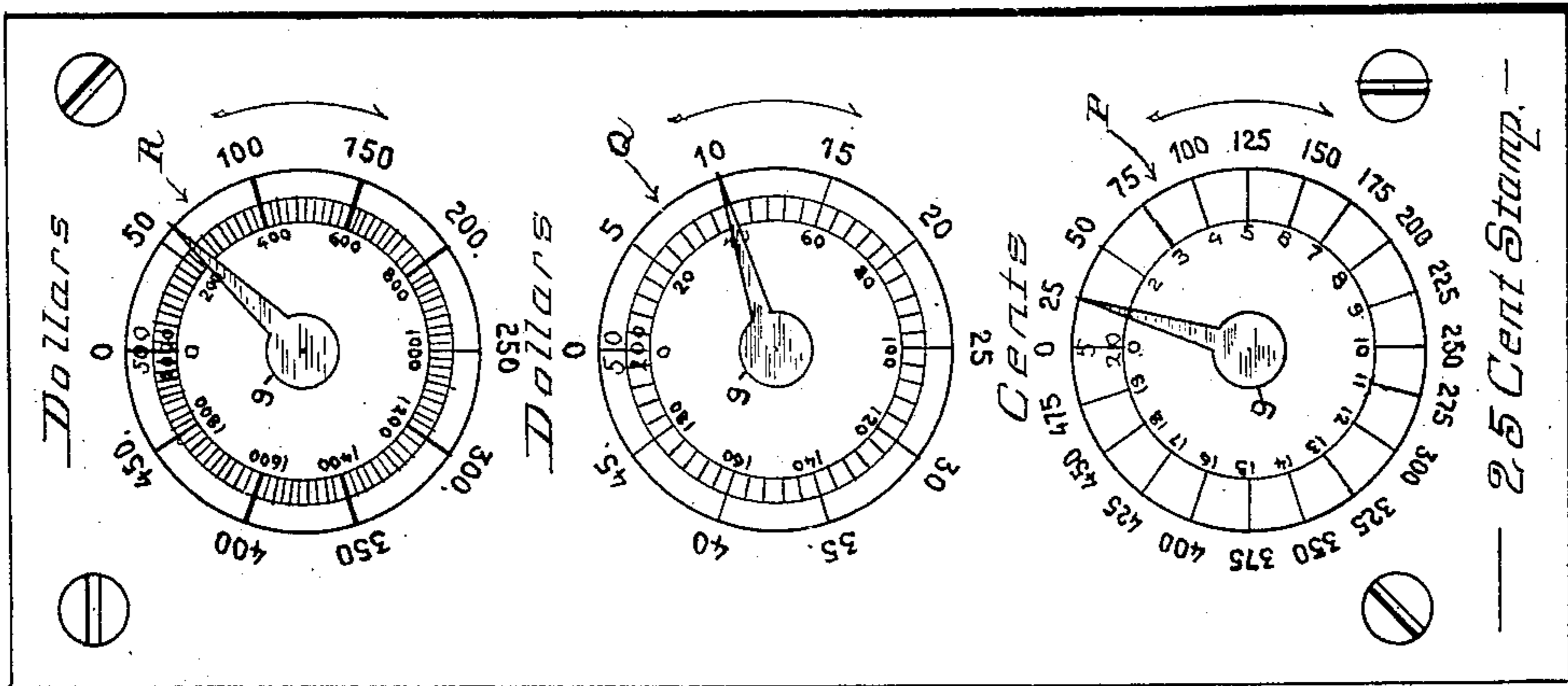
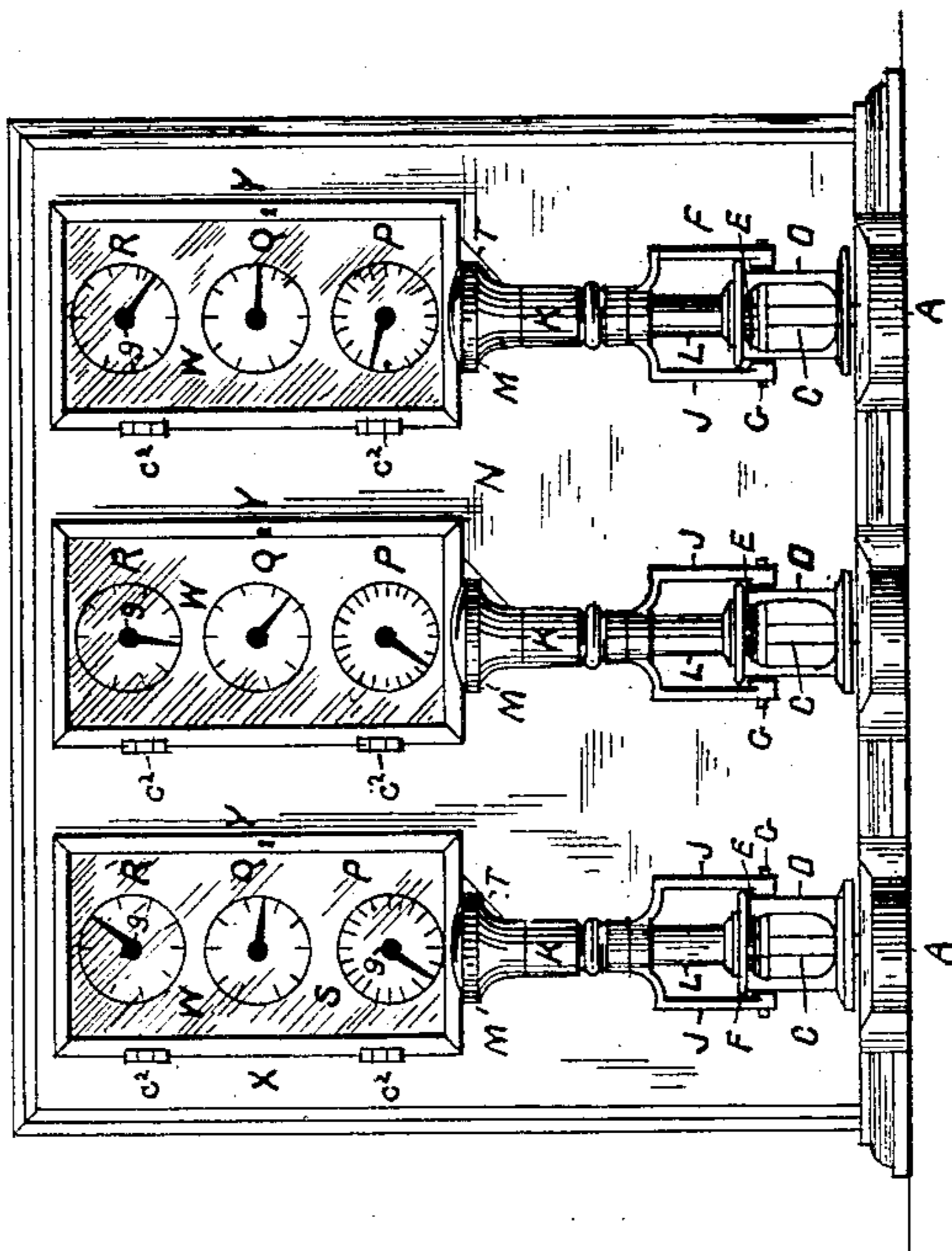


Fig. 6.



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Fig. 4.

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UNITED STATES PATENT OFFICE.

BENJAMIN P. ROBERTS, OF BOSTON, MASSACHUSETTS.

REGISTERING APPARATUS FOR CHECK-STAMPS.

SPECIFICATION forming part of Letters Patent No. 316,293, dated April 21, 1885.

Application filed May 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN P. ROBERTS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Registering Apparatus, of which the following is a full, clear, and exact description.

In restaurants and other eating and drinking-places, and ticket-offices of railroads, theaters, &c., and other places issuing, in the course of their business, "checks," so called, to patrons or customers, and in other business in the conduct of which checks or other certificates are passed out in representation of the amount purchased or of the amount due from the patron or customer; it is very desirable, as well known, for the making of a proper, and, as far as possible, accurate account or record, to provide means for either recording or accounting for the same, which means, if used, shall be practically reliable and accurate in guarding against the possibilities of fraud being practiced by the party having charge of the issue of such checks or other certificates so issued, and as a consequence secure the proper return of funds in accordance with said issue. It is to the issue of such checks that the invention relates; and the invention consists in the means hereinafter particularly described, and then pointed out in the claims.

In the accompanying drawings mechanism for carrying out the invention is illustrated.

Figure 1 is a front elevation; Fig. 2, in part, a side elevation and a vertical section on line 2 2, Fig. 1. Fig. 2^a is a face view of the operating mechanism for the hands of the several dials; Fig. 3, a horizontal section on line 3 3, Fig. 2. Fig. 4 is a face view on an enlarged scale of the dial-faces and their graduations and marking of the same; Fig. 5, a plan view illustrating an aggregation of three separate operating stamp and registering mechanisms combined in one stand; Fig. 6, a front elevation of Fig. 5.

In the drawings, A represents a horizontal bed-plate having a horn, B, projecting at its front, and on the top of this horn is marked the unit of denomination of the stamp and registering mechanisms, in the present instance the figures 25 representing twenty-five cents, and having at its rear side a vertical standard, C.

D is a skeleton, cylindrical shaped, and ver-

tical frame attached to the upper end of the standard C and directly over the bed-plate A, and carrying a stamping die or head, E, and an inking-pad, F. The inking-pad F is stationary, and it is at the upper end of the frame D, and the stamping-die E is arranged to rotate upon a transverse horizontal rod, G, which can travel at each end in vertical guide-ways or slots H in opposite sides of the frame D, and at each end said rod is attached to the lower ends of the vertical tines J in extension of a vertical tubular spindle, K, adapted to move up and down upon a stationary vertical guide-rod, L, of the skeleton frame D, and provided at its upper end with a head, M, marked also with the figures 25. One of the vertical slots H has a notch, *a*, in one side wall. The die has a projection, *b*, and surface or edge *d*, and one wall of the skeleton frame D has a cam-edge, *f*, so that in a downward movement of the die E between the tines the die will be rotated one-half a rotation, bringing its stamping-surface into position to stamp its marks or characters upon a sheet of paper placed upon the bed A in position therefor, and so that in an upward movement of the die E between the tines it (the die) will be rotated one-half a rotation, bringing its stamping-surface into contact and at rest against the under surface of the inking-pad. Said downward movement of the die is secured by pressing upon the head M, and is against a coiled spring confined between the upper end of the guide-rod L and of the tubular spindle K, and said upward movement of the die is from the reaction of said spring.

The construction, arrangement, and operation above described of the stamping mechanism is as well known, and of itself said mechanism constitutes no part of the present invention; nor is this invention to be limited to it in the combinations of mechanisms (stamping, impressing, or imprinting, &c., and registering) which in part make up the present invention, said mechanism being illustrated and described only for the purpose of showing one stamping mechanism suitable for the combination of mechanisms of this invention.

The stamping-surface of the die E is marked with figures 25, corresponding with the unit of the stamp marked at other parts, as has been explained.

Back of the stamping mechanism just de-

scribed is an upright casing or box, N, closed on all sides and attached to the rear extension, O, of the bed-plate A. This casing projects above the head M of the stamp described, and in such portion the registering mechanism and dials to be now explained are located and arranged. The dials in the present instance are three in number, marked P, Q, and R, and are located one above the other, and on a common vertical and stationary plate, S. Dial P is divided into twenty equidistant radial graduations marked at their outer ends, one with the figure 0, the next with the figure 25, and thence continuing in same direction and in regular order in steps each of twenty-five to and including figures 475, which is next at the left of the graduation marked with the figure 0. Said dial P at the inner ends of its several graduations is marked, the one marked with figure 0, as described with figure 0, and the next at the right with figure 1, and thence continuing in same direction and in regular order in steps each of one to and including figures 19, which is next at the left of the graduation marked with the figure 0 at both its inner and its outer ends. The graduation marked with figure 0 at both ends is between its ends marked directly under the outer figure 0 with figure 5 and directly above the inner figure 0 with figures 20.

Dial Q is divided into ten equidistant radial graduations marked at their outer ends, one with the figure 0, and the next at the right with figure 5, and thence continuing in same direction and regular order in steps, each of five, to and including figures 45, which is next at the left of the graduation marked with the figure 0. Said dial Q, at the inner end of its graduations, is marked, the one marked with the figure 0, as described, with figure 0, and the next at the right with figures 20, and thence continuing in same direction and in regular order in steps, each of twenty, to and including figures 180, which is next at the left of the graduation marked with the figure 0 at both its inner and outer ends. The graduation marked with figure 0 at both ends is between its ends marked directly under the outer figure 0 with figures 50, and directly above the inner figure 0 with figures 200.

Dial R is divided into ten equidistant radial graduations marked at their outer end, one with the figure 0, and the next at the right with figures 50, and thence continuing in same direction and in regular order in steps, each of fifty, to and including figures 450, which is next at the left of the graduation marked with the figure 0. Said dial R, at the inner end of its graduations is marked, the one marked with the figure 0, as described, with figure 0, and the next at the right with figures 200, and thence continuing in same direction and in regular order in steps, each of two hundred, to and including figures 1800, which is next at the left of the graduation marked with the figure 0 at both its inner and outer ends. The graduation marked with figure 0 at both

ends is between its ends marked directly under the outer figure 0 with figures 500, and directly above the inner figure 0 with figures 2000.

Dial P represents in its graduations dollars and cents, from twenty-five cents upward in regular order and steps, each of twenty-five cents, to and including five dollars, and also numbers from one to twenty, both inclusive. The dollars and cents are noted in the outer, and the numbers in the inner arrangements of figures described.

Dial Q represents in its graduations dollars only from five dollars upward in regular order and steps, each of five dollars, to and including fifty dollars, and also numbers from twenty to two hundred, both inclusive. The dollars are noted in the outer and the numbers in the inner arrangements of figures described.

Dial R represents in its graduations dollars only from fifty dollars upward and in regular order and steps, each of fifty dollars, to and including five hundred dollars, and also numbers from two hundred to two thousand, both inclusive. The dollars are noted in the outer and the numbers in the inner arrangements of figures described.

The several dials P, Q, and R, graduated and marked and numbered, as above described, have their centers in the same vertical line and the graduation of each marked with the figures 0 uppermost and coincident with said vertical line of their centers, and all as plainly shown in Fig. 4.

Each dial is provided with a hand or pointer, *g*, which in each instance is carried upon the projecting end of a separate horizontal spindle, (marked *h*, *k*, and *l*, respectively.) Each hand *g* is attached, the same as the hands of a clock or watch, to its spindle, so as to rotate therewith, and yet be capable of being turned thereon to set to any graduation of its dial at any time, if so desired.

The several spindles *h*, *k*, and *l* are connected by mechanism to be now described. Spindle *h* has a ratchet-wheel, *m*, and a pinion gear-wheel, *n*. The ratchet-wheel *m* is operated upon by a spring-pawl, *p*, carried by a lever, *q*, turning upon said spindle *h* as a fulcrum, and having one end of a coiled spring, *r*, fastened to it, the other end of which is fastened to a stationary post, *s*, of the framework. The lever is limited in its throw in either direction by stops or abutments *t* and *t'*. The pawl *p*, engaging with the ratchet-wheel *m*, which wheel has twenty teeth, corresponding to the graduations of dial P, when operated by pulling the lever *q* downward against its spring, turns the ratchet-wheel, and thus the spindle *h* and its hand *g* is rotated to the extent of one graduation of the dial P, and on the reaction of said spring said pawl is returned to position for another operation of it upon the ratchet-wheel. The pawl in its said return passes freely over the ratchet-teeth without action thereon, and to hold the ratchet-wheel *m* against movement in the

other and wrong direction a spring-stop pawl, *u*, is provided.

v is an intermediate gear-wheel carried by a spindle, *v'*, and engaging with the pinion *n* of hand-spindle *h*, and with the gear-wheel *w* of hand-spindle *k*, having pinion-wheel *x*, with which in turn engages another intermediate gear-wheel, *y*, carried by a spindle, *y'*, and this gear-wheel *y* engages with a gear-wheel, *z*, of the hand-spindle *l*.

Each throw of the pawl *p*, from a depression of its operating-lever *q*, turns the ratchet and pinion wheels *m* and *n*, spindle *h*, and hand *g* of said spindle, and at dial P, and said dial-hand *g* is thereby moved to the extent of one graduation of the face of said dial. At the same time, through the system of gearing above described, and connecting said pinion-wheel *n* with the hands of the dial Q and R, both of said hands are moved and the hands of all the dials P, Q, and R moved in the same direction as represented by the arrows Fig. 4. The said connecting-gearing is proportioned so that in the movements of the several hands, as stated—namely, in the case of the dial Q—its hand *g* shall have moved from one numbered graduation to another thereof when the hand *g* of dial P has made one complete circuit of such dial P, and in the case of the dial R its hand *g* shall have moved from one numbered graduation to another thereof when the hand *g* of dial Q has made one complete circuit of such dial Q, and as to points between such graduations of the dials to move and indicate the hands at their intermediate graduations—to wit, at dial Q, each time the hand of dial P has made four movements, and thus counted a dollar, the record of such dollar, and at dial R, each time the hand of dial Q has made five movements, and thus counted five dollars, the record of such five dollars.

The operating-lever *q* for the pawl *p*, operating the hand of dial P, has an arm, T, pivoted to it, and this arm, by a slot, *b*², engages with a horizontal arm, U, attached to and projecting from the vertical tubular spindle K, which arm U passes through a vertical slot, V, of the casing N from the said tubular spindle *k* to said slot *b*² in the lever T, thus forming a connection, all in a manner for the operation of the stamping mechanism to move the registering mechanism acting upon the pawl *p*, through the arms *q* T U, as has been herein described.

It is obvious from the description herein given that each time the stamping mechanism is operated it operates the registering mechanism, so as to record at its several dials not only the amount in dollars and cents represented thereby, but also the number of times the stamping mechanism is operated.

The uses of the combination of mechanisms, substantially such as described, as is evident, are many and various, and too obvious to need a more particular description than has already been herein given.

The casing or box N, containing the registering mechanism described, has, by preference, a glass front, W, for convenience of observation of its record, and this glass front W is in a door, X, hinged, as at *c*², and provided with a lock at Y of any suitable construction for locking it, and thus placing the registering mechanism against being interfered or tampered with.

With dials P, Q, and R graduated and having their hands operated, as described, it is plain from them the amount represented in dollars and cents of the several operations of the stamping mechanism, from time to time, can be minuted, as also the number of separate operations of said mechanism.

Figs. 5 and 6, as before stated, illustrate a series of stamps and registering mechanism, such as has been fully described, and each having a unit of its own—as, for instance, twenty-five cents, fifty cents, and seventy-five cents.

This invention is not to be limited to the mechanism which has been described for operating the hands of the several dials.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the bed-plate A, carrying a suitable marking device and provided with an extension, O, a casing, N, supported by said extension and carrying a series of dials, one of which is adapted to indicate the number of times the marking device has been worked and the others the aggregate values of the articles marked, suitable mechanism within said casing for operating said dials, and a system of levers—such as *q*, T, and U—for connecting the marking devices outside of casing N with the registering mechanism inside of said casing, the several parts being constructed and arranged to operate substantially as described.

2. The combination of the bed-plate A, carrying a suitable marking device and provided with an extension, O, a casing, N, supported on said extension and carrying a series of dials, one of which is adapted to indicate the number of times the marking device has been worked and the others the aggregate values of the articles marked, a system of gear-wheels in said casing for transmitting motion from one wheel to another and to the hands of said dials, the ratchet-wheel *m* on the spindle *h*, the levers *q* T U, connecting the marking device with the registering mechanism, and the pawl *p* on lever *q*, engaging with the ratchet-wheel *m*, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

BENJN. P. ROBERTS.

Witnesses:

EDWIN W. BROWN,
WM. S. BELLOWS.