

No. 647,211.

Patented Apr. 10, 1900.

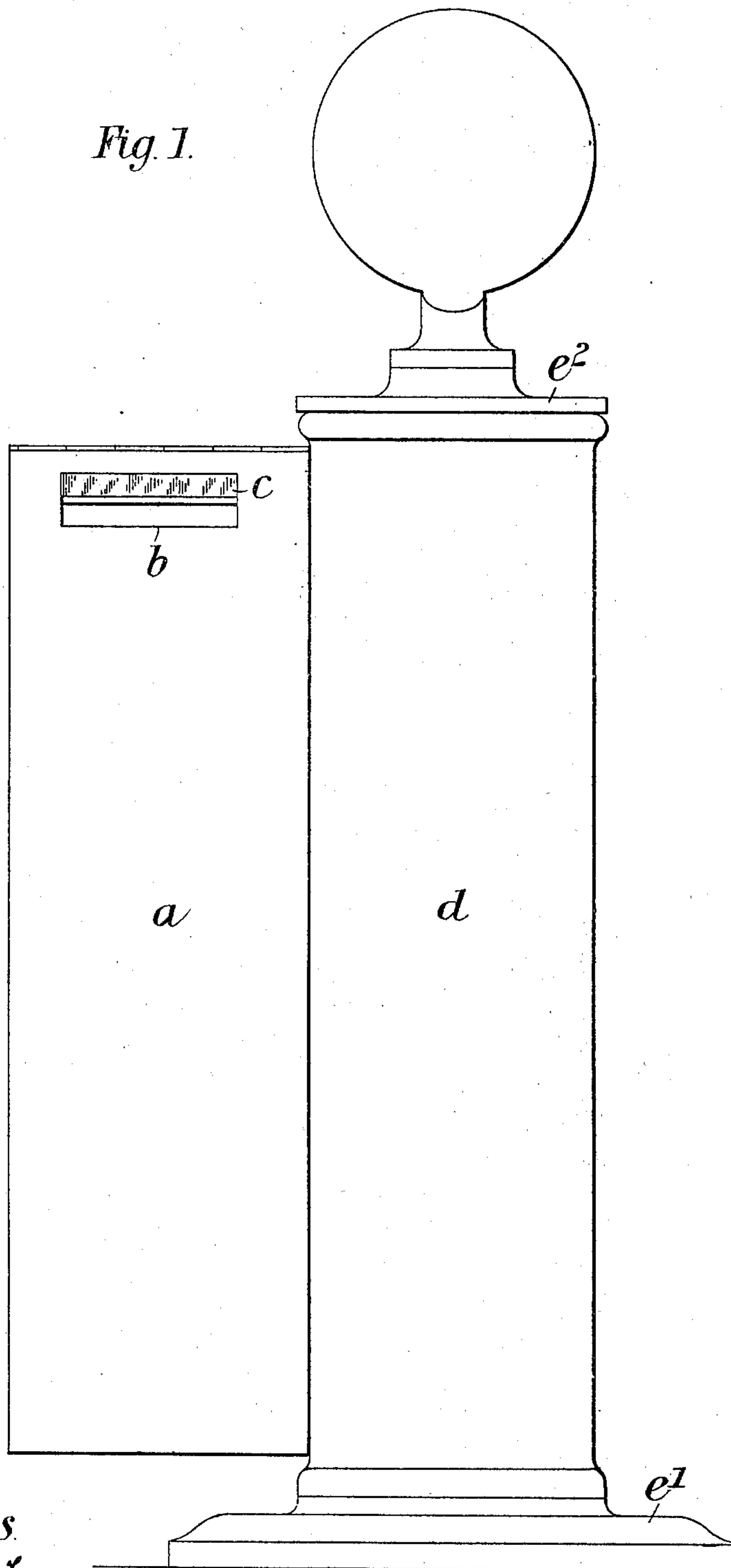
M. G. WOOD.
CASH REGISTER.

(Application filed Nov. 7, 1899.)

(No Model.)

4 Sheets—Sheet 1.

Fig. 1.



Witnesses.
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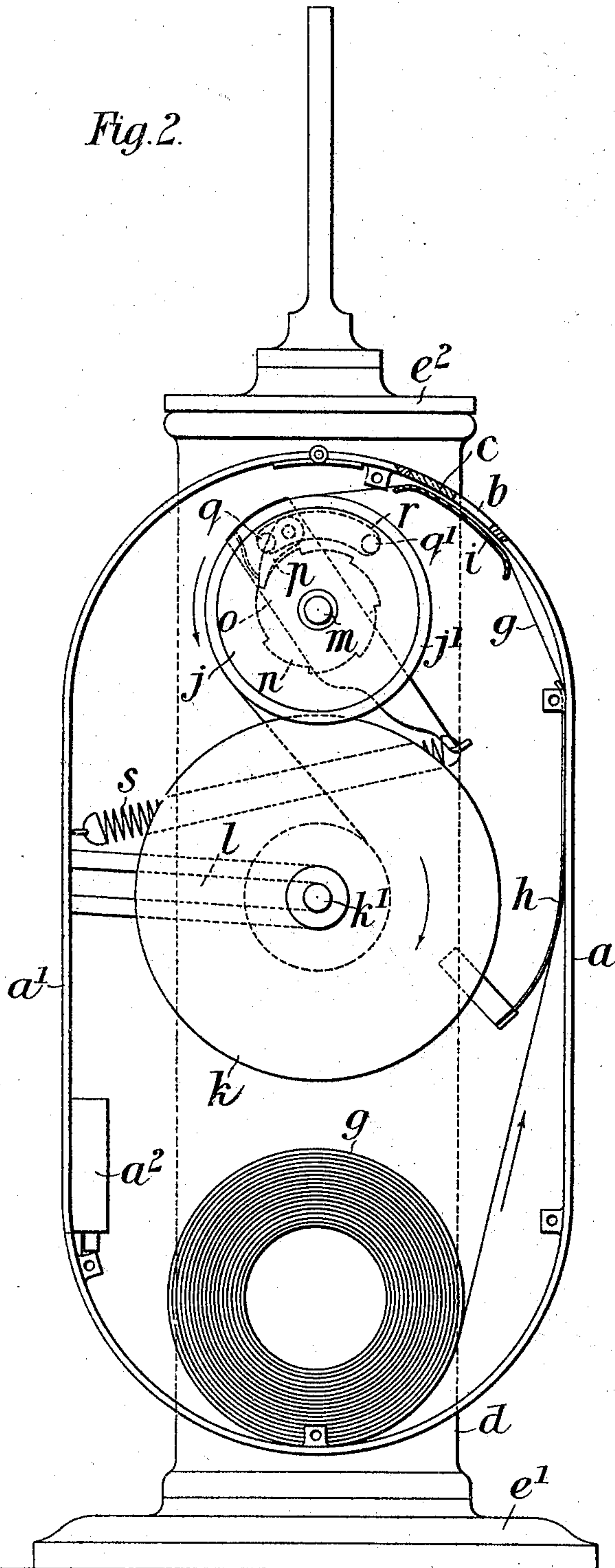
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Fig. 2.



Witnesses.

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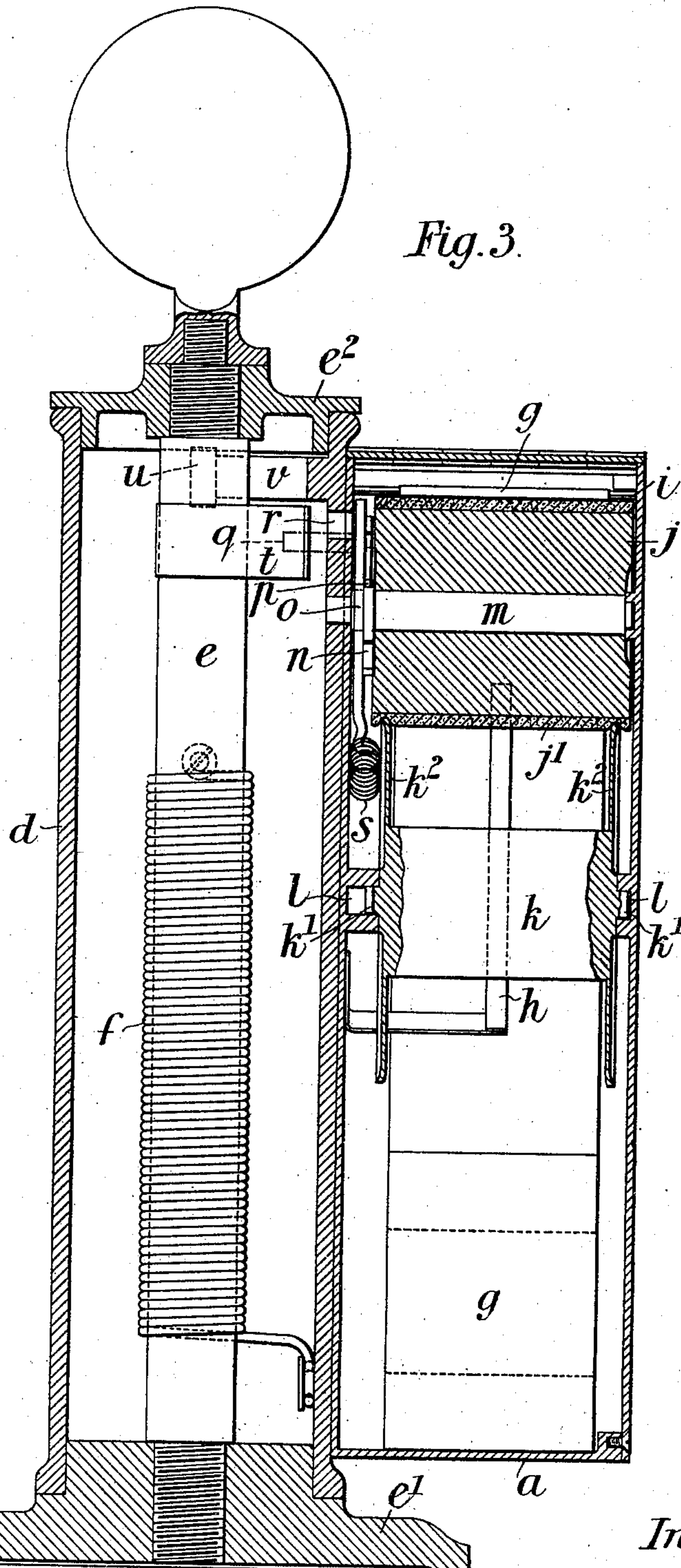
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Fig. 3.



Witnesses

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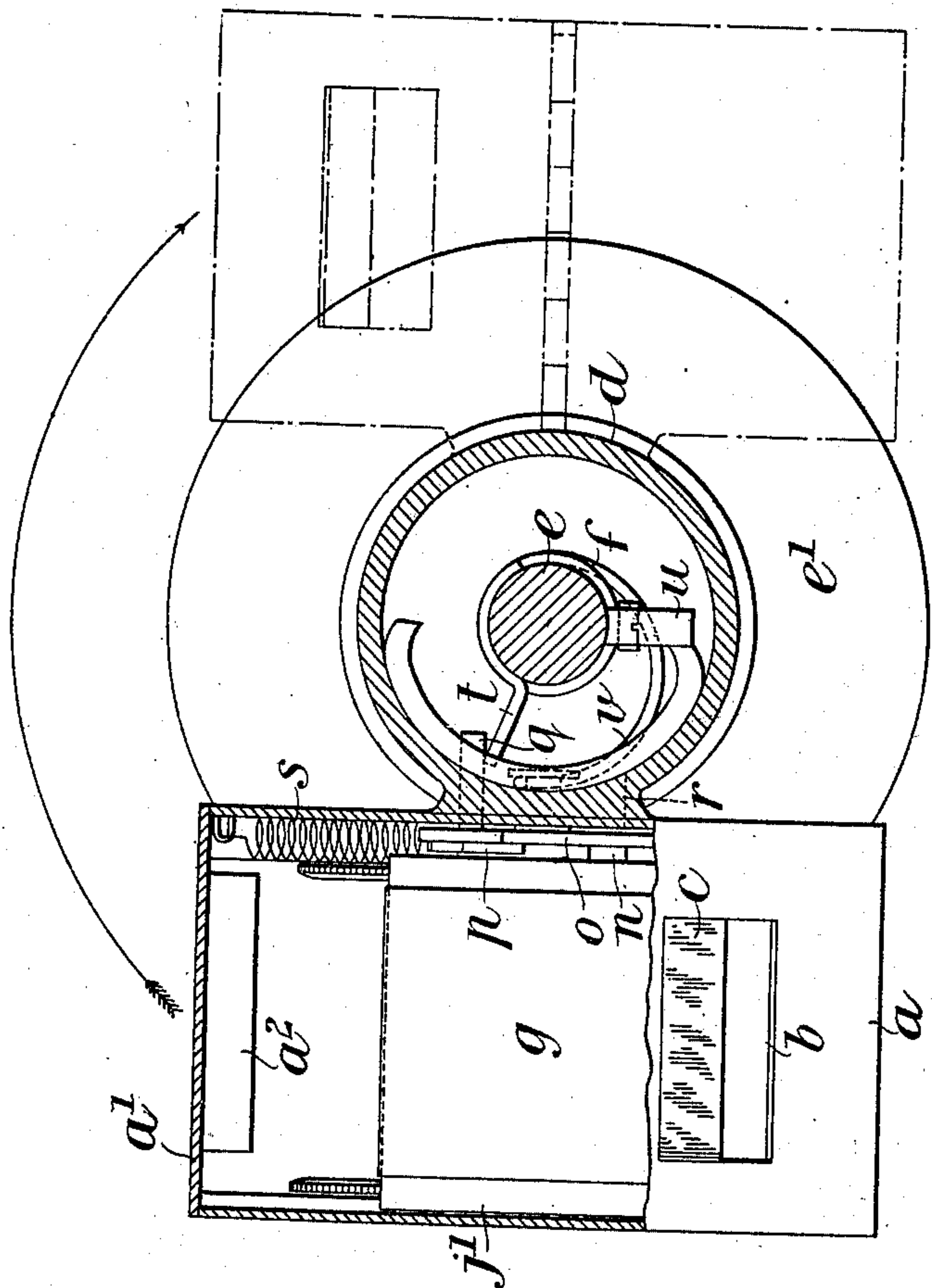
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(No Model.)

4 Sheets—Sheet 4.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

MARSHALL GEORGE WOOD, OF BRIGHTON, ENGLAND.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 647,211, dated April 10, 1900.

Application filed November 7, 1899. Serial No. 736,151. (No model.)

To all whom it may concern:

Be it known that I, MARSHALL GEORGE WOOD, a subject of the Queen of Great Britain, residing at 21 St. James's street, Brighton, in the county of Sussex, England, have invented new and useful Improvements in Cash-Registers, of which the following is a specification.

My invention relates to cash-registering apparatus of the kind wherein the amounts of cash received from time to time are written upon a paper band, which when the apparatus is moved is caused to travel to such an extent as to bring a fresh portion of the band into position to be written upon and to move the portion of the band upon which a record was last written behind a glass screen, and to that class of such apparatus which is mounted upon an axis, so that it can be moved to enable the amount recorded upon the band by a shop assistant or other person to be inspected by a person paying the money, the objects of my invention being to simplify the construction of such apparatus, to reduce the cost of production, and to render it more easy of manipulation than apparatus of the same class as heretofore constructed.

In the accompanying drawings, Figure 1 is a side elevation of a cash-register having my improvements applied thereto. Fig. 2 is a sectional side elevation thereof with one end of the casing removed. Fig. 3 is a vertical section of the apparatus seen from the back, and Fig. 4 is a sectional plan of the apparatus.

The apparatus comprises a casing *a*, which is advantageously of the flattened oval shape shown and is provided with a window *b*, partially covered by a glass screen *c* and laterally with a sleeve or socket *d*, rotatably mounted upon an upright pillar or post. The pillar or post comprises a rod *e*, screwed at its lower end into a rabbeted foot or base *e'* and at its upper end to a rabbeted flanged cap *e''*. The sleeve or socket *d* fits and turns on the rabbeted foot *e'* and cap *e''*, as clearly seen in Fig. 3. A spring *f* (see Figs. 3 and 4) is arranged inside the socket *d* to normally turn the casing into a position such that the aforesaid window *b* is turned toward the purchaser, the said spring being coiled around the rod *e* and secured at one end to the said rod and at the other end to the casing *a*. To enable

access to be had to the interior of the casing, it is provided at the back with a hinged door *a'*, which is furnished with a lock *a''*.

The paper band *g*, upon which the amounts of cash received are to be written, is simply placed in the bottom of the casing in the form of a roll (see Fig. 2) and the end of the said band is drawn up to the top of the casing, passing over a tension-spring *h* and a table *i*, behind the window *b* and glass screen *c*, and thence down and over a guide or feed roller *j*, and on to a receiving-drum *k*. This receiving-drum *k* is provided with lateral pivots or trunnions *k'* *k''*, which are passed into guide or bearing grooves *l* *l'*, formed on the inside of the casing *a*, so that the drum can be inserted from the back of the apparatus and can rotate in the said guides. The feed-roller *j* is fitted on a spindle *m*, which is pivotally mounted in the casing *a* and sleeve *d*, as will be clearly seen on reference to Fig. 3. The said roller is also furnished with a rubber or other suitable facing *j'*, and bears upon flanges *k''* *k'''*, provided at each end of the drum *k*, so that when the roller *j* is rotated, as herein-after described, it revolves the receiving-drum *k* by frictional contact.

To operate the feed-roller *j*, I advantageously secure a ratchet-wheel *n* to the portion of the spindle *m* between the roller *j* and one end of the casing *a*, and I provide a pawl-lever *o*, loosely mounted on the spindle *m* and carrying a pawl *p*, adapted to engage with the teeth of the ratchet-wheel *n*. The said pawl-lever *o* also has a pin *q* at its upper end, which pin *q* projects through a curved slot *r* (the center from which it is described coinciding with the pivot of the pawl-lever) into the sleeve or socket *d*. A spring *s*, which is attached to the lower end of the pawl-lever *o* and to the side of the casing *a*, tends to pull the pawl-lever into such a position that the pin *q* is at the other end of the slot to that shown in Fig. 2—that is to say, such that the pin occupies the position indicated at *q'*. When, however, the casing *a* is in the position indicated in the drawings—that is to say, with the window *b* facing the purchaser—the said pawl-lever *o* has been turned against the action of the spring *s* into the position shown in the drawings, (most clearly in Fig. 2,) this being effected by a pin or tappet *t*,

which projects from the upright rod *e* and into the path of the pin *q*, so as to hold back the pawl-lever *o* and prevent it from moving with the casing. With this arrangement
 5 when the casing, which is normally, as above described, held by the spring *f* with the window *b*, containing the glass screen *c*, facing the purchaser, is turned by the shop assistant or other person upon the vertical pillar,
 10 so that the window faces him in order that he may write the amount of the purchase on the paper band *g*, which is presented behind the said window *b*, the pin *q* is moved away from the stop-pin *t*, so that the spring *s* can pull
 15 back the pawl-lever *o*, the pawl *p* during this movement inoperatively sliding over the teeth of the ratchet-wheel *n*. When, having registered the amount, the assistant allows the casing *a* to be returned to its normal position
 20 by the spring *f*, the pin *q* upon the pawl-lever *o* again comes into contact with the stop-pin or tappet *t*, being thereby held from turning with the casing *a*, so that the pawl *p* turns the ratchet-wheel through a predetermined distance corresponding to the extent
 25 to which the pin *q* is held from rotating. The feed-roller *j* is thereby turned and operates the drum *k*, so as to wind the paper upon the said drum from the roll in the bottom of the casing *a* in the direction indicated by the arrows, Fig. 2. This movement of the paper
 30 brings the amount just registered upon the paper band *g* by the shop assistant under the glass screen *c* in the window, leaving the paper under the uncovered portion of the window free for the next entry.

A stop-pin *u* is fixed to the upright rod *e* to limit the movement of the casing *a* in either direction, this being effected through the
 40 medium of the stop-piece *v*, which is secured in the interior of the sleeve *d*, the two ends of this piece *v* by coming into contact with the stop-pin *t* limiting the movement of the sleeve upon the upright pillar.

45 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a cash-register, the combination with

a support, of a casing pivotally mounted on 50 said support, said casing being provided with a recording-aperture and a table below said aperture to support a recording-band, of a feeding-roller for said band within said casing, a ratchet-wheel connected with said feed- 55 roller, an operating-lever, a pawl carried by said lever and engaging said ratchet-wheel and a stationary part secured to said support in position to be engaged by a part connected with said lever when the casing is moved 60 around said support, substantially as described.

2. In a cash-register, the combination of an upright pillar or support, a casing pivotally mounted thereon, a paper-roll loosely held in 65 the bottom of the casing, a receiving-drum pivotally mounted in the casing, a feed-roller pivotally mounted in the casing and arranged to frictionally drive the said drum and feed the paper in front of a window in the casing 70 and on to the said drum, a ratchet-wheel rigidly secured to the feed-roller, a pawl-lever pivotally mounted in the casing and having a pawl engaging with the ratchet-wheel and a projecting pin adapted to engage with a fixed 75 tappet or pin upon the upright pillar, substantially as hereinbefore described.

3. In a cash-register, the combination of an upright pillar or support, a casing pivotally mounted thereon, a paper-roll loosely held in 80 the bottom of the casing, a receiving-drum pivotally mounted in the casing, a feed-roller pivotally mounted in the casing and arranged to frictionally drive the drum and feed the paper in front of a window in the casing and 85 on to the drum, a ratchet-wheel rigidly secured to the feed-roller, a pawl-lever pivotally mounted in the casing and having a pawl engaging with the ratchet-wheel and a projecting pin adapted to engage with a fixed 90 tappet or pin upon the upright pillar, and a spring attached to the casing and the pawl-lever, substantially as, and for the purpose, hereinbefore described.

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Witnesses:

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