(No Model.) 2 Sheets—Sheet 1.

# W. W. & W. H. WYTHE.

## CASH REGISTER AND INDICATOR.

No. 452,043. Patented May 12, 1891.

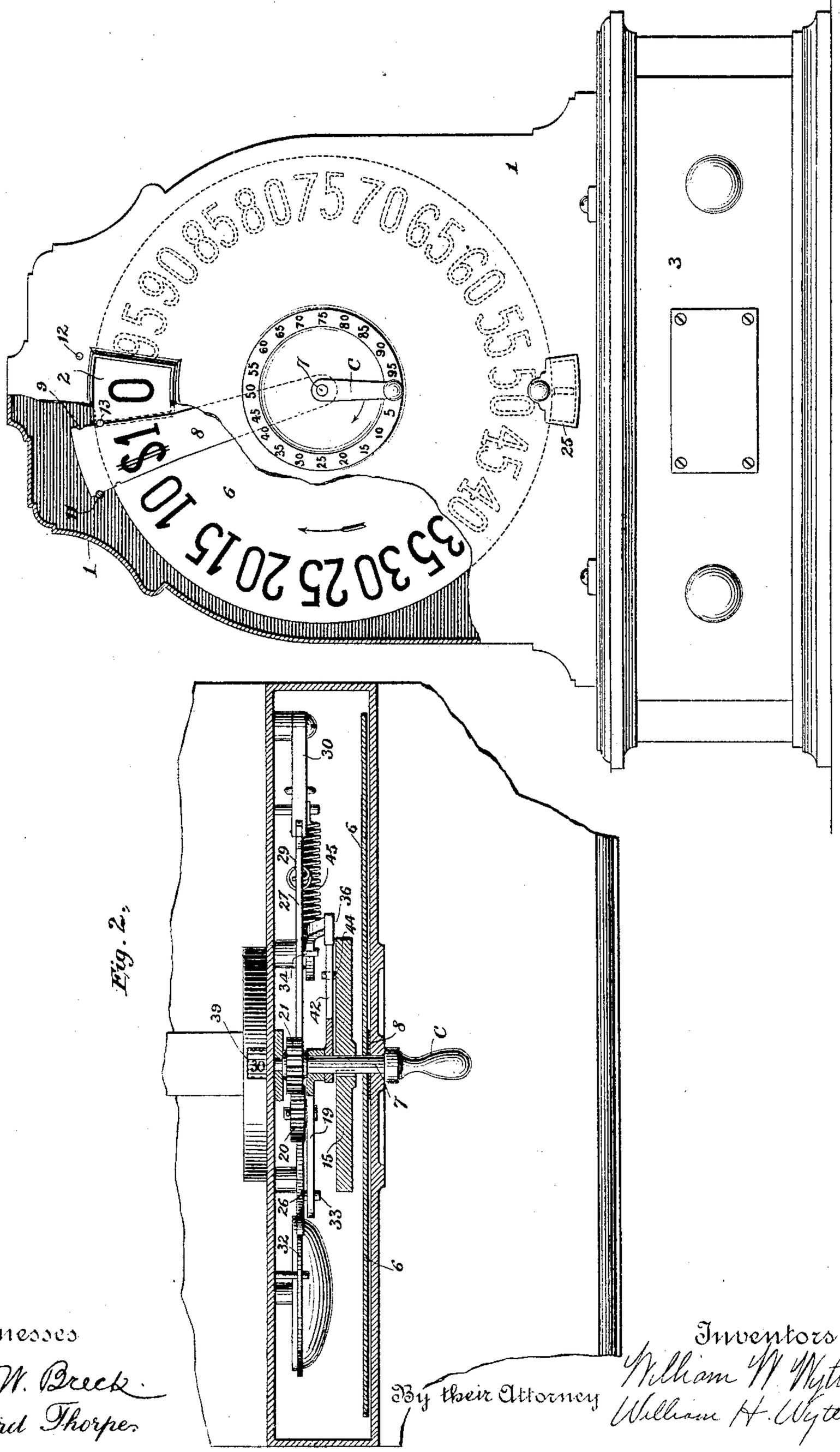


Fig. 1.

Fig. 2.

Witnesses
Geo. W. Breck.
Edward Thorpe.

Inventors
William W. Wythe
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By their Attorney

(No Model.) 2 Sheets—Sheet 2.

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## CASH REGISTER AND INDICATOR.

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Fig. 3.

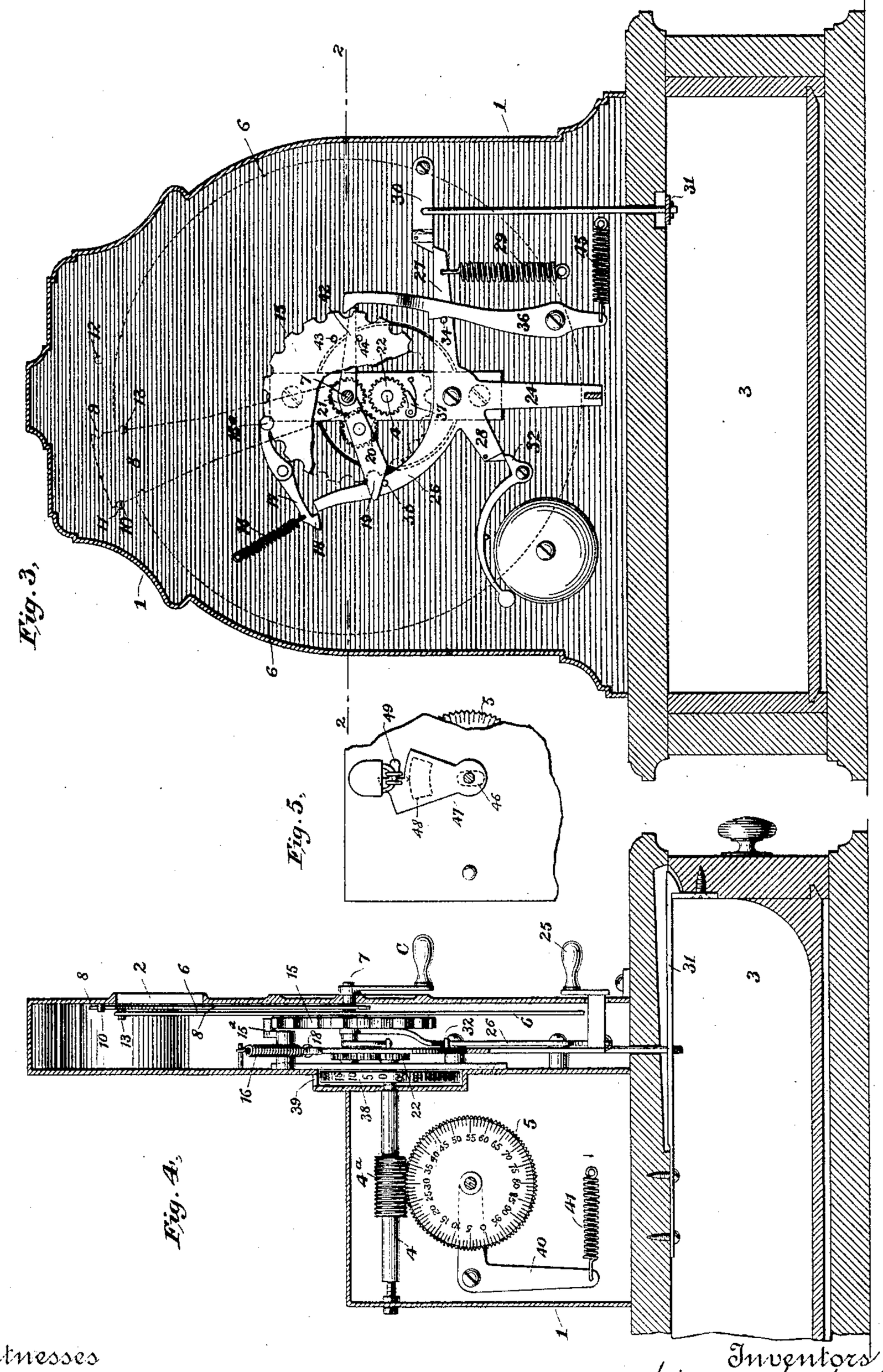

Fig. 5.



Fig. 4.



Witnesses
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# UNITED STATES PATENT OFFICE.

WILLIAM W. WYTHE AND WILLIAM H. WYTHE, OF ORANGE, NEW JERSEY.

## CASH REGISTER AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 452,043, dated May 12, 1891.

Application filed July 12, 1890. Serial No. 358,557. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM W. WYTHE and WILLIAM H. WYTHE, both citizens of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Cash Registers and Indicators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, of which—

Figure 1 is a front elevation with a portion of the outside case broken away, showing a portion of the indicating mechanism. Fig. 2 is a plan view of the mechanism. Fig. 3 is a sectional front elevation. Fig. 4 is a sectional side elevation showing the registering mechanism. Fig. 5 is a view of a portion of the case, showing the method of locking the registering-wheel in position.

Like letters and figures of reference indicate like parts in each.

We provide any suitable case 1, which is also the frame-work of the mechanism having in front an opening 2, through which the indicating-numerals may be read, and in its lower part a money-drawer 3.

Journaled in the case or frame 1 is a shaft 4, extending from the back plate of the front casing and supported by a set-screw at the rear end of the machine. This shaft bears a screw or worm $4^a$, containing a suitable number of threads and engaging with the teeth of a worm-wheel 5, which constitutes a part of the registering mechanism.

Behind the front plate of the case 1 is a dial 6, on which are displayed indicating-numerals, which in the drawings are from 0 to 95 cents, but may be any other desired numerals. This dial is secured firmly to the shaft 7, journaled in the front part of the case 1, and provided with a crank C in front of the case, so that when the crank is turned any desired numeral may be displayed through the opening 2.

Loosely mounted on the shaft 7 is a plate 8 in front of the dial 6, provided with a dollar sign or a numeral. This plate is provided with notches 9 10, which engage with the lugs 11 12 on the case 1, so that the plate 8 may swing loosely between these lugs. On the dial 6 is a lug 13, which engages with the plate 8, so that when the zero sign is displayed at the opening 2 the plate 8 is held against the lug 11 and the dollar sign is hidden behind the front of the case. When the shaft 7 is turned a complete revolution toward the left, the lug 13 engages with the other side of the plate 8, carrying it forward against the lug 12 and displaying the dollar sign at the opening 2.

The figures on the front of the case are only for the convenience of the operator in setting the dial to the desired position.

Behind the dial 6 and firmly secured to the shaft 7 is a disk 15, with notches on its periphery corresponding in number to the numerals on the dial, in which a detent $15^a$ engages. This detent is pivoted to the case and is held in position by a spring 16, and is provided with a tail 17, having a notch 18, the use of which will be hereinafter described.

Loosely mounted on the shaft 7 is an arm 19, on which is mounted a gear-wheel 20, having same number of teeth as numerals on the dial engaging with a similar gear-wheel 21, attached firmly to the shaft 7. The shaft 4 has firmly attached to it another similar gear-wheel 22. The wheel 20 is normally held out of engagement with the wheel 22 by means of a pin or lug 33 on the arm 26 of the lever 24, which engages with the swinging arm 19, but may be thrown into engagement, as will be hereinafter described.

Pivoted on the case 1 is a lever 24, provided with a handle 25, projecting through an opening in the lower part of the case. This lever is provided with arms 26 27 28, and is held in position by a spring 29. The use of this lever is to open the money-drawer and to throw the gear-wheels 20 and 22 into engagement, as will be hereinafter described.

It will be seen from the foregoing that when the mechanism is in its normal position the indicating mechanism is independent of the shaft 4, and the dial 6 may be moved in either direction without disturbing the registering mechanism. When the lever 24 is moved toward the right, the arm 27 engages with the tripper 30 of the drawer-latch 31 and unlocks the drawer, which is thrown open by any suitable spring. At the same time the arm

28 engages with the bell-hammer 32, and the arm 26 is depressed and allows the arm 19, which is held by the pin or lug 33, to drop, engaging the gear-wheel 20 with the gear-wheel 22. The pin or lug 34 on the arm 27 engages with the notch on the pivoted arm 36, thus holding the lever 24 where it has been placed. The drawer may now be closed, but cannot be unlocked again until the lever 24 is brought back to its normal position by means which will hereinafter be described. The gear-wheels being now in engagement, it follows that when the dial 6 is rotated by the crank the shaft 4 is also rotated. The shaft 4 can only be rotated anti-clockwise, being prevented from rotating in the opposite direction by the detent 37, engaging with the teeth of the wheel 22. If the figure 50 has been displayed at the opening 2 and the dial brought back to zero after the drawer has been opened by the lever 24, the shaft 4 will make one-half of a revolution. If the dollar sign has been displayed, the rotation of the dial back to zero will cause the shaft 4 to make a complete revolution, moving the worm-wheel the space of one tooth by the screw.

Firmly attached to or integral with the shaft 4 is a disk 38, inclosed in a portion of the case. This disk carries on its outer face numerals from 0 to 95, corresponding with the numerals on the dial 6, one of which may be read through the opening 39. The worm-wheel 5 carries upon its face a scale marked from 1 to 100, or as many numbers as there are teeth in the wheel, which may be read through an opening in the case.

To operate the mechanism the amount desired to be registered is displayed at the opening 2 by turning the crank clockwise. The lever 24 is then pressed toward the right, opening the drawer. The drawer is then closed and the crank turned back until zero appears at the opening 2, when the amount will be added to the previous sales, and the total amount may be read from the scale on the worm-wheel and disk 38, the dollars being read on the worm-wheel and the cents on the disk. The worm-wheel 5 is mounted on an arm 40, pivoted to the case, and is held in engagement with the screw by the spring 41, attached to the arm 40, so that by drawing down the arm 40 the scale may be readily set to zero.

The worm-wheel 5 is provided with a suitable handle attached to its shaft working in the slot 46, to which handle is secured a swinging plate 47 on the outside of the case, so arranged that it may cover the opening 48, through which the scale on the worm-wheel is read. This plate is locked in position by the bolt 49, passing through a staple attached to the case and secured by a padlock or other convenient lock, so that the worm-wheel is locked in engagement with the worm, thus preventing the register from being tampered with.

Loosely journaled on the shaft 7 is an arm 42, swinging between the two pins or lugs 43 and 44 on the disk 15, so arranged that the end of the arm engages with the beveled end of the pivoted arm 36, so that when the dial 6 is brought to zero the pin 34 is disengaged from the notch 35, and the lever 24 is brought back to its normal position by the spring 45. When the detent $15^a$ is in the notches of the disk 15, the notch 18 on the tail 17 is not in engagement with the end of the arm 26 of the lever 24; but when the detent is on top of a tooth the tail is depressed and engages with the arm 26, so that the lever is locked and the drawer cannot be unlocked, so that the figures on the dial 6 must be placed exactly in front of the opening 2 before the drawer can be unlocked.

We do not limit ourselves to the precise construction as described. Instead of a worm and a worm-wheel, the screw $4^a$ may be extended along the entire length of the shaft 4 and carry a nut bearing a pointer traversing a longitudinal scale.

We claim—

1. In a cash register and indicator, the combination of a dial bearing a series of indicating-numerals, a registering device consisting of a worm and worm-wheel bearing a registering-scale, and a numbered disk integral with the shaft bearing said worm, the registering device being normally independent of the indicating-dial, and intermediate mechanism whereby the indicating-dial may be engaged with the registering device so that they may be operated as one piece, substantially as specified.

2. In a cash register and indicator, a shaft with worm and worm-wheel bearing a registering-scale, and fixed gear-wheel secured to said shaft, in combination with an indicating-dial, fixed gear-wheel secured to said dial, intermediate gear-wheels, lever for throwing said gear-wheels in engagment, and arm on said lever for lifting drawer-lock, and drawer-lock, substantially as specified.

3. In a cash register and indicator, the combination of an indicating-dial, mechanism for engaging said dial with a registering device, lever for operating said mechanism, pin or lug on said lever, swinging arm bearing notch to engage with said lug or pin, and arm of lever so constructed as to lift a drawer-latch, whereby the registering mechanism cannot be operated until the drawer has been unlocked, and whereby the drawer cannot be unlocked the second time until the registration has been completed, substantially as specified.

4. In a cash register and indicator, a shaft with worm and fixed gear-wheel and registering-disk securely fixed to or integral with said shaft, in combination with a worm-wheel and fixed gear-wheel of indicating-dial, dial, and intermediate idle-wheel, substantially as specified.

5. In a cash register and indicator, the com-

bination of a drawer-latch, unlocking-lever, arm on said lever, indicating-dial bearing notched disk, detent engaging in notches of said disk, and notch on said detent engaging with arm on the unlocking-lever, whereby the indicating-numerals must be in the required position before the drawer can be unlocked, substantially as specified.

6. In a cash register and indicator, the combination of a slotted case, opening in said case, worm-wheel opposite said opening, handle on shaft of said worm-wheel, working in slot in case, and bolt for holding said door or plate, whereby the worm-wheel may be held in engagement with the worm until said door is unlocked, substantially as specified.

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Witnesses:
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WM. E. TAYLOR.