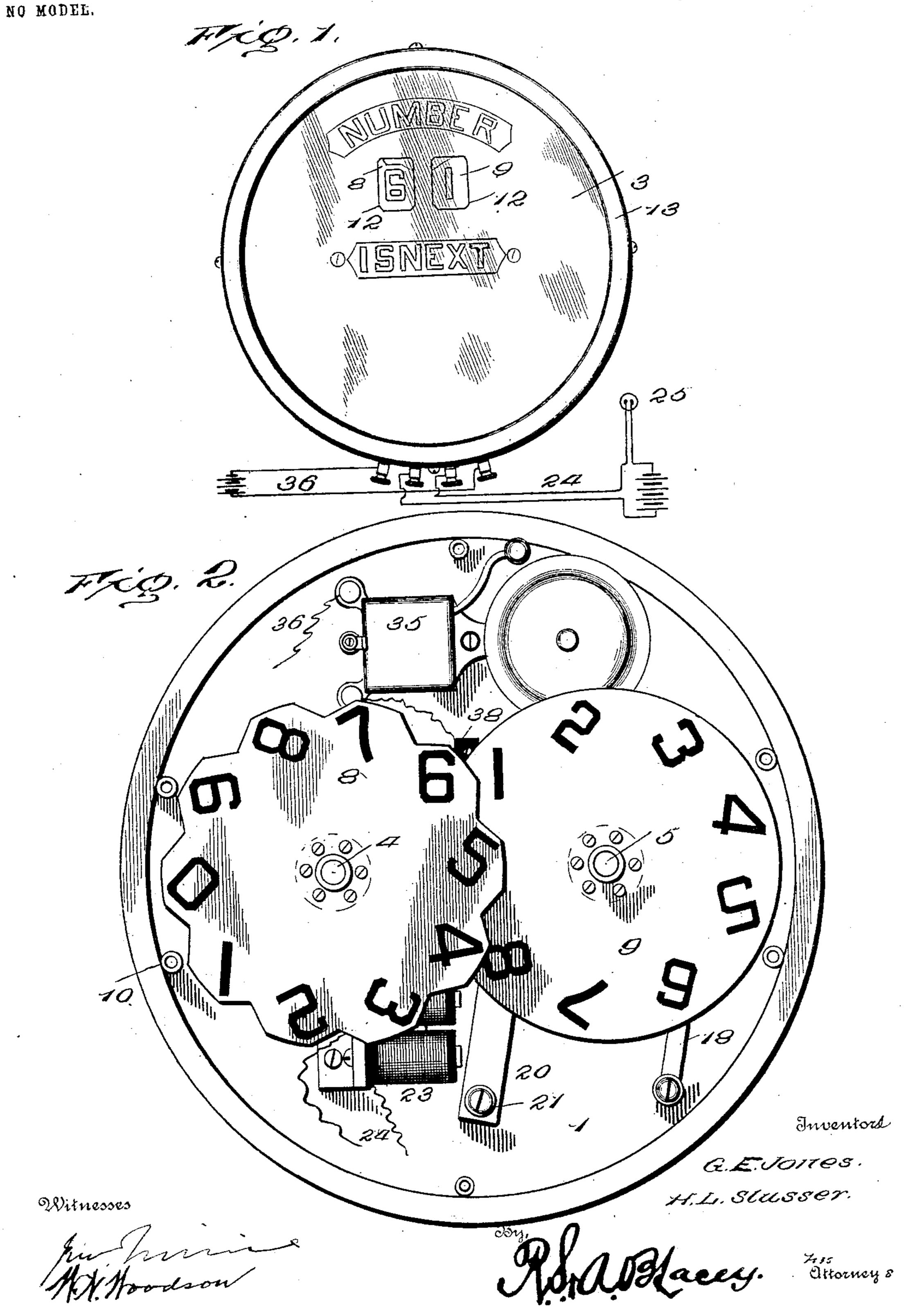
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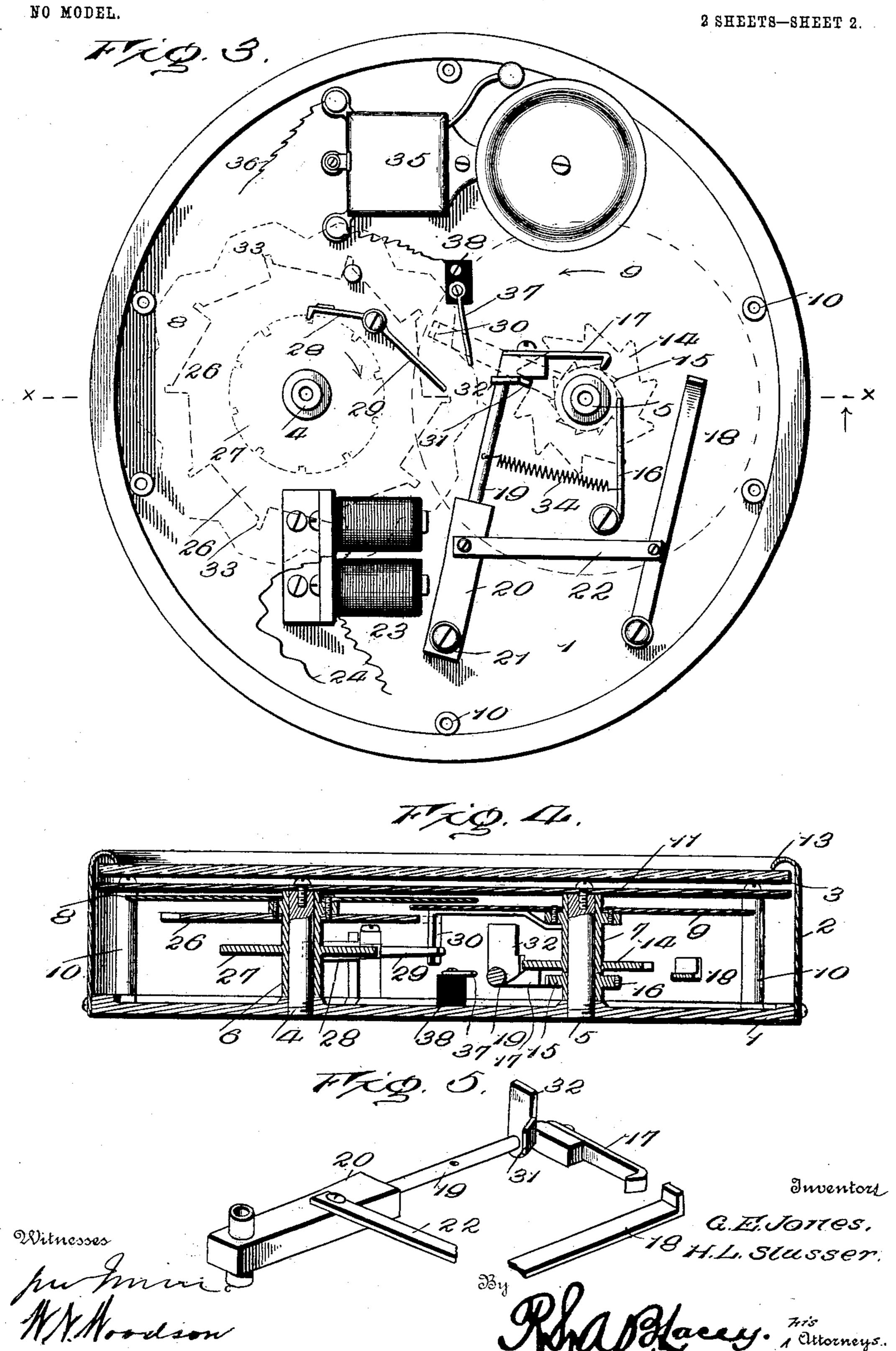
2 SHEETS-SHEET 1.



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## INDICATOR FOR BARBER SHOPS OR THE LIKE.

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## United States Patent Office.

GEORGE E. JONES AND HARRY L. SLUSSER, OF COLUMBUS GROVE, OHIO, ASSIGNORS OF ONE-HALF TO CHARLIE H. JONES AND GEORGE W. CORE.

## INDICATOR FOR BARBER-SHOPS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 762,534, dated June 14, 1904.

Application filed February 16, 1904. Serial No. 193,876. (No model.)

To all whom it may concern:

Be it known that we, George E. Jones and Harry L. Slusser, citizens of the United States, residing at Columbus Grove, in the 5 county of Putnam and State of Ohio, have invented certain new and useful Improvements in Indicators for Barber-Shops or the Like, of which the following is a specification.

This invention provides a mechanism of pe-10 culiar formation for use in conjunction with checks, tickets, or like tokens to designate the order of customers, patrons, or persons to be served, treated, or waited upon, thereby obviating disputes, misunderstandings, and 15 other annoyances resulting from parties seeking to come in ahead of those rightfully entitled to precedence by reason of their earlier arrival.

The chief intention is to improve, simplify, 20 and cheapen the class of devices as heretofore constructed for this purpose, whereby their cost of maintenance is minimized, their liability to get out of order greatly reduced, and the action rendered positive, responsive, and 25 satisfactory.

The invention consists of the novel features, details of construction, and combinations of parts, which hereinafter will be more particularly set forth, illustrated, and finally claimed.

3º In the drawings hereto attached and forming a part of the specification, Figure 1 is a front view of an indicator embodying the invention. Fig. 2 is a view similar to Fig. 1 on a larger scale, the front plate being omit-35 ted. Fig. 3 is a view similar to Fig. 2, having the indicating-disks omitted. Fig. 4 is a cross-section on the line X X of Fig. 3 looking in the direction of the arrows. Fig. 5 is a perspective view of the armature and pawls 4° cooperating therewith.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The casing comprises the back plate 1, rim 2, and front plate 3, the latter being preferably of glass to admit of observing the interior of the casing, while at the same time ex-

cluding dust and preventing tampering with the mechanism. Posts 4 and 5 are connected 50 to the back plate 1 and support sleeves 6 and 7, to which the indicating-disks 8 and 9 are attached. Other posts 10 project from the back plate 1 and support the plate 11, which is connected thereto. The plate 11 is likewise 55 connected to the posts 4 and 5 and is provided with the observation opening or openings 12, through which the numerals of the indicatingdisks are read. The outer edge portion of the rim 2 is recurved, as shown at 13, to ex- 60 tend in front of the plate 3, so as to confine and hold the same in place, said rim 2 being attached at or near its inner or rear edge to

the back plate 1.

The indicating-disks 8 and 9 are each pro- 65 vided with numerals from "1" to "0," the disk 9 corresponding to the units numerals and the disk 8 to the tens numerals. A ratchet-wheel 14 is secured to the sleeve 7 for rotation therewith, and a corresponding ratchet-wheel 15 70 of smaller diameter is likewise connected to said sleeve 7, so as to rotate with the ratchetwheel 14 and units-disk 9. A detent-pawl 16 cooperates with the teeth of the ratchet-wheel 15 to prevent backward movement of the 75 units-disk. A feed-pawl 17 coöperates with the teeth of the ratchet-wheel 15 to move the units-disk forward step by step a distance according to the space between the numerals, so as to bring the latter in proper position for 80 observation in successive order. A pawl 18 coöperates with the teeth of the ratchet-wheel 14 to prevent overthrowing of the units-disk and to insure correct position of the numerals opposite the observation-opening in the plate 85 11. The feed-pawl 17 is connected to a rod or bar 19, projected from an armature 20, which is pivoted at 21 to the back plate 1. The pawl 18 is connected with the armature 20 by means of the link 22, whereby said ar- 90 mature and pawls 17 and 18 move in consonance. An electromagnet 23 is provided for attraction of the armature 20 and is connected to the back plate 1 and is included in an electric circuit 24, controlled by means of a 95 push-button 25 or other circuit-closing de-

vice, by means of which the electromagnet may be vitalized when it is desired to operate the indicator to bring the next number in position for observation.

The indicating-disk 8 is connected to the sleeve 6, so as to turn therewith. A ratchetwheel 26 is connected to the sleeve 6, as is also a notched disk 27. A weighted pawl 28 is adapted to enter the notches of the disk 27 10 and prevent movement of the sleeve 6 and attached parts in either direction, except as herein provided. A tailpiece 29 projects from the weighted detent-pawl 28 and extends within the path of a trip 30, projected 15 from the sleeve 7. The trip 30 also projects

across the path of the teeth of the ratchetwheel 26 and is adapted to engage with a tooth of said ratchet-wheel at each complete revolution of the units-disk, so as to move the 20 tens-disk forward a distance to bring the next

numeral in position for observation. The trip 30 is preferably attached to the sleeve 7 by means of an arm, although it may project from the units-disk. Two clicks 31 and 32 25 are provided at the free end of the rod or bar

19 to act jointly with the teeth of the ratchetwheels 14 and 26 to limit the movement thereof in one direction. When the parts occupy the position about as shown in Fig. 3, the click

30 31 engages with a tooth of the ratchet-wheel 14 and prevents forward movement of said ratchet-wheel, whereas the pawl 16 prevents backward movement thereof. The engaging portions of the click 31 and feed-pawl 17 are

35 disposed with reference to the teeth of the respective ratchet-wheels 14 and 15 to admit of limited play, whereby the click 31 clears the teeth of the ratchet-wheel 14 before the pawl 17 exerts a force upon the ratchet-wheel 15 to

40 move the units-disk forward. The parts 31 and 16 prevent movement of the units-disk by the direct application of force thereto. Hence the power for operating the indicator must be applied through means of the arma-

45 ture 20, as by energizing the electromagnet 23 by closure of the electric circuit 24. The click 32 is adapted to extend across the path of the teeth of the ratchet-wheel 26, so as to prevent overthrowing thereof and the tens-

5° disk when the latter is actuated by means of the trip 30. For this purpose the teeth of the ratchet-wheel 26 are provided with extensions 33 to engage with the click 32 when the armature 20 is attracted, so as to move the

55 click 32 into the path of the extensions 33. A spring 34 connects the detent-pawl 16 with the rod or bar 19 and normally holds the same in engagement with the teeth of the ratchetwheel 15.

Combined with the indicator is an alarm mechanism for attracting attention when the indicator is operated. As illustrated, the alarm mechanism consists of an electric bell 35, which is included in an electric circuit 36, 65 adapted to be closed in any determinate way,

preferably by means of the armature, which is included in the circuit 36, and when attracted is adapted to make electrical connection with the spring-contact 37, forming a terminal of the electric circuit 36 and elec- 70 trically insulated from the plate 1 by means of the block 38 of insulating material.

The operation of the indicator is as follows: The electric circuit 24 being closed by means of the push-button 25 or like contrivance ef- 75 fects magnetization of the part 23, which attracts the armature 20 and causes forward movement of the units-disk by engagement of the feed-pawl 17 with a tooth of the ratchetwheel 15. As the armature 20 is attracted 80 the rod or bar 19 or a part thereof makes electrical connection with the contact 37 and closes the circuit 36, thereby sounding the alarm and calling attention to the indicator. As the units-disk is about to complete a revo- 85 lution the trip 30 comes in contact with the tailpiece 29 of the pawl 28 and releases the tens-disk and an instant later engages with a tooth of the ratchet-wheel 26 and moves the tens-disk forward a distance to bring the next 90. number in position for reading through the observation-opening. In conjunction with the indicator cards, tickets, checks, or like tokens are issued bearing numerals in consecutive order, whereby the possessor may be in- 95 formed when his or her turn has arrived for attention.

Having thus described the invention, what is claimed as new is—

1. In an indicator, the combination of coor- 100 dinate indicating-disks, ratchet-wheels connected with said indicating-disks for movement therewith, a trip connected for movement with the units-disk to effect a movement of the tens-disk at each complete revolution 105 of the units-disk, means for preventing casual movement of the tens-disk and adapted to be released by said trip, ratchet mechanism for effecting a step-by-step movement of the unitsdisk, and detent mechanism normally holding 110 the units-disk from movement in either direction and operated by the actuating means to permit proper actuation of the indicator, substantially as set forth.

2. In an indicator, the combination of coor- 115 dinate indicating-disks, ratchet-wheels connected therewith, an oscillating actuator for imparting a step-by-step movement to the units-disk, and clicks carried by said oscillating actuator for alternate engagement with 120 the teeth of the respective ratchet-wheels to limit the movement of the indicating-disks in one direction, substantially as set forth.

3. In an indicator, the combination of coordinate indicating-disks, ratchet-wheels 14 and 125 26 connected therewith, the ratchet-wheel 26 having its teeth provided with extensions 33, an oscillating actuator, operating means for the units-disk, a trip connected with the unitsdisk for moving the tens-disk at each complete 130

revolution of the units-disk, and clicks 31 and 32 connected with the said oscillating actuator for alternate coöperation with the teeth of the ratchet-wheel 14 and the extensions 33 of the ratchet-wheel 26, substantially as set forth.

4. In an indicator, the combination of indicating units and tens disks, ratchet-wheels 14 and 26 connected therewith, the latter having extensions 33, a notched disk 27 connected with the tens indicating-disk, a pawl coöperating with the notched disk 27 and having a tail extension, a trip connected with the units indicating-disk and adapted to effect disengagement of the pawl from the notched disk 27 and engagement with the teeth of the ratchet-wheel 26, an oscillating actuator for operating the units-disk, and clicks connected with said actuator for alternate coöperation with the teeth of the ratchet-wheels 14 and 26, substantially as set forth.

5. In an indicator, the combination of units and tens indicating-disks, ratchet-wheels 14

and 26 coöperating therewith, ratchet-wheel 15 connected with the units-disk, notched disk 27 connected with the tens-disk, detent-pawl 25 16, pawls 17 and 18 for the ratchet-wheels 15 and 14, armature 20 having the pawls 17 and 18 connected therewith, clicks 31 and 32 connected with said armature, pawl 28 having an extension, a trip connected with the units-disk 30 and adapted to engage with the extension of pawl 28 and with the teeth of the ratchet-wheel 26, an electric circuit including an electromagnet for operating said armature, and an electric alarm-circuit adapted to be closed 35 by the movement of said armature, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE E. JONES. [L. s. HARRY L. SLUSSER. [L. s.

Witnesses:
BERT V. Co.

Bert V. Core, Harry S. Core.