

(No Model.)

3 Sheets—Sheet 1.

J. H. SCHNARRENBERGER.
CASH INDICATOR AND REGISTER.

No. 465,732.

Patented Dec. 22, 1891.

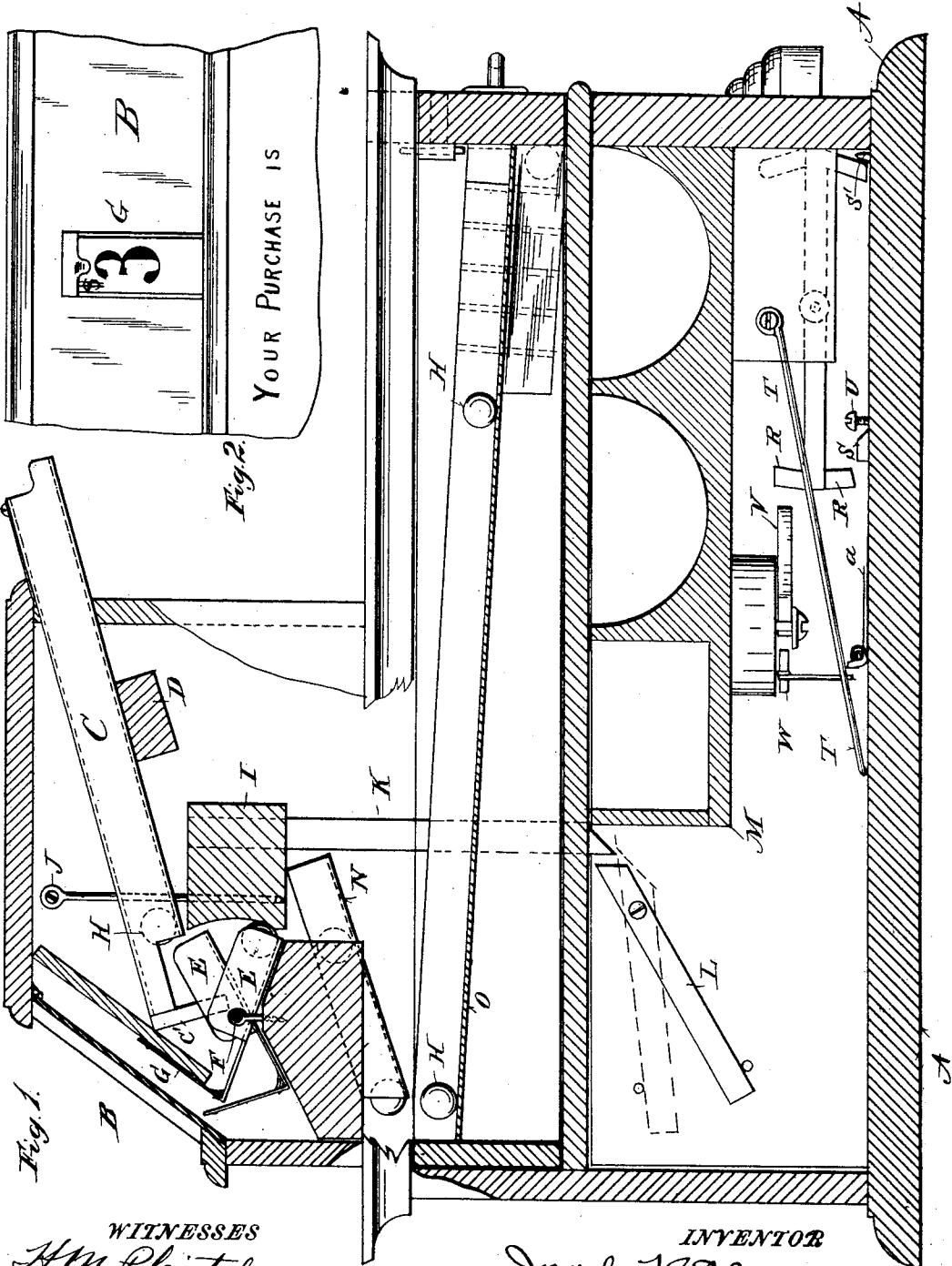


Fig. 1.

Fig. 2.

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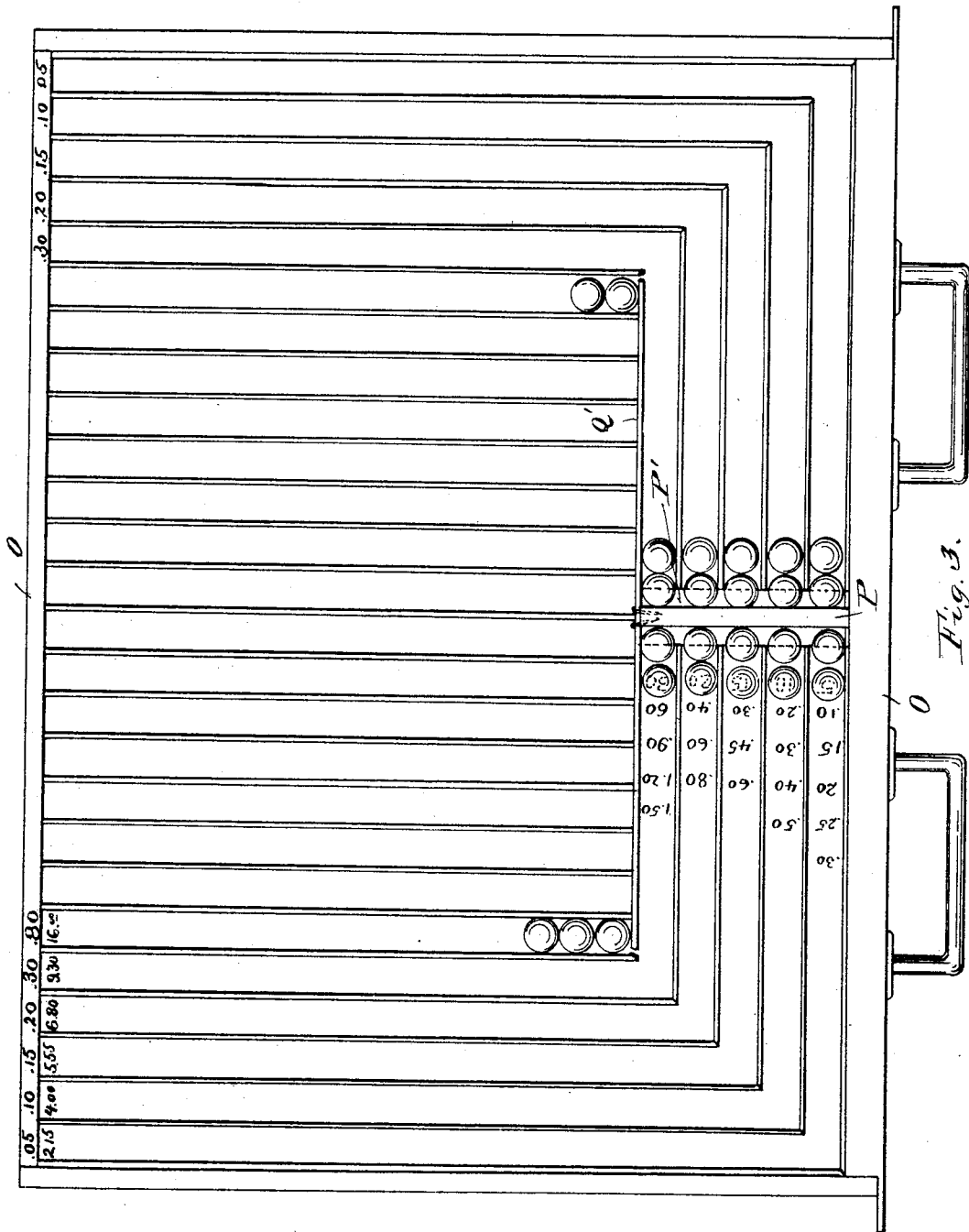


Fig. 3.

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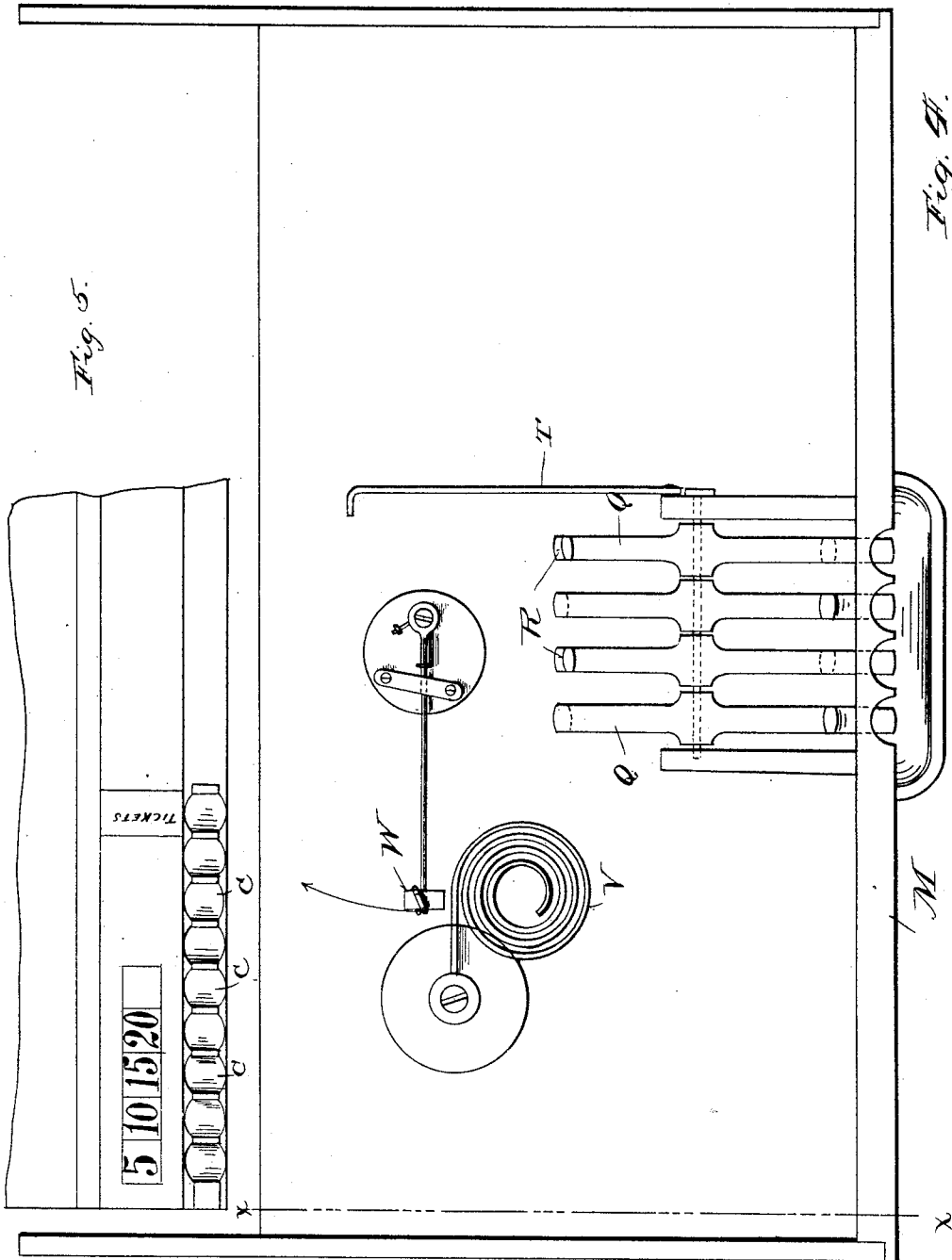


Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE.

JACOB H. SCHNARRENBERGER, OF GREENFIELD, OHIO.

CASH INDICATOR AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 465,732, dated December 22, 1891.

Application filed September 5, 1891. Serial No. 404,869. (No model.)

To all whom it may concern:

Be it known that I, JACOB H. SCHNARRENBERGER, a citizen of the United States, residing at Greenfield, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Cash Indicators and Registers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in cash indicators and registers.

My improvements have reference to a special construction and mounting of gravitating buckets bearing indicator-cards, and guiding-conduits to and from said buckets to guide and deliver operating-weights; have reference to a drawer, divided into compartments to receive said weights and provided with scales of figures to register the succeeding amounts corresponding thereto; have reference to an arrangement for emptying said register-drawer and to other points of detail, hereinafter pointed out and claimed.

In the accompanying drawings, on which like reference-letters indicate corresponding parts, Figure 1 represents a sectional view near one side of the machine on the line X X of Fig. 4; Fig. 2, a portion of the front thereof, showing an indicator-card raised; Fig. 3, a plan view of the register-drawer; Fig. 4, a bottom view of the cash-drawer, showing the locking and sounding mechanism; and Fig. 5 a plan view of a portion of the top of the machine, showing the entrances to the conduits and the corresponding designating-figures.

The letter A designates the base of my machine, provided with a sight-opening at B in the case and preferably closed to exclude dust.

At the top or other convenient part of the machine are mounted a series of conduits C, the entrances to which are opposite corresponding figures, as shown in Fig. 5, representing the amounts of the respective purchases. A cross-bar D, Fig. 1, supports these conduits, each of which discharges into a pivoted bucket E, adapted to oscillate about its supporting-rod F, on which said buckets are mounted in a series opposite the lower ends of said conduit C.

Indicator-cards G are secured to an extension from said buckets and are adapted to be raised by the oscillation of the buckets, re-

spectively, into the view of the purchaser through said sight-opening B. The normal position of each bucket is upward toward its conduit to receive an operating-weight in the form of a ball or a sphere H, which, entering the bucket, oscillates it to its lower position and raises the indicator-card at the same time. The weight is retained in the bucket by a stop I, extending across the machine and pivotally supported at J, while an extension K from said stop is adapted to be engaged by a trip-piece L, mounted on the side of the cash-drawer M, whereby the stop-piece will be thrown backward when the drawer is pulled out, thus allowing the weight to enter the register-drawer O through a guide N, or other means adapted to deliver it thereto. This register-drawer, as shown in Figs. 1 and 3, is divided into troughs or compartments, the bottoms of which are inclined to cause the weights to assume a position at the lower end of the troughs as they successively enter the same. The bottom or other portion of each trough is provided with a scale of figures increasing according to the figure represented by the conduit, as in Fig. 5. For instance, the first conduit on the left, representing nickels, may have a scale on the bottom of the drawer increasing by five, and at such distances between the figures that each weight as it takes its place will cover one figure of the scale, while the next higher figure visible will register the amount represented by the weights contained in the trough. Thus one ball entering the nickel-trough will be registered by the first figure 5 of the scale, which will be covered by the second ball, thus showing 10 as the next higher figure. Thus the amounts represented by the weights in the troughs may be reliably ascertained by observation without the trouble of counting the weights contained in each trough. It will be observed that the longer troughs are assigned to the lower denominations, such as five and ten cents, since they may register the largest number of purchases. The register-drawer, thus divided off into inclined troughs, is very simple in its construction, effective in operation, and cheap in manufacture.

In order to empty the drawer, a sliding block or partition P, Fig. 3, may be removed, thus allowing the balls to find free exit through an

opening P' into a cash-drawer or other receptacle below. The strip Q' is connected with the piece, so that on lifting the latter the former moves up with it, thereby allowing the weights on the inside of the strip Q' to pass into the inner conduit and then out of the opening P'. The drawer is normally locked to prevent tampering with the register. All the troughs or conduits may thus be conveniently and quickly emptied.

The cash-drawer is opened each time a purchase is made and is provided with some form of lock, such as that shown in Figs. 1 and 4, and consisting of levers Q, fulcrumed on a common pivot and provided with lugs R, which may be engaged with the stops S and S' to prevent operating the drawer unless the device be operated by one knowing the combination. For instance, if the lug engaged with the forward stop in Fig. 1 be raised with the other lugs the drawer will be free to open, unless by mistake or ignorance the rear lugs R are thrown downward to engage with the rear stop. Referring to Fig. 4, it will be seen that two or more of these lugs may be down and adapted to engage with either the forward or rear stop to lock the drawer. A drag-rod T is adapted to engage with the stop-pin U to prevent pulling the drawer entirely out. As the cash-drawer is pulled open a sounder is actuated to call attention to the fact and to the indicator-card presented at the sight-opening. Any convenient mechanism for the sounder may be employed, such as that shown in Fig. 4, consisting of a coiled wire V, to be struck by a spring-hammer W, when the latter is tripped by engaging with a detent a, secured to the base A, which actuates the hammer as the drawer is pulled open. Referring again to the opening of the drawer, it will be seen that this act actuates the stop I, so that the weight, which has just previously dropped into the conduit agreeing with the amount of the then particular purchase, may pass from the bucket E and thence down into the scale trough or conduit. Thus it will be understood that when the purchase is made the operator or clerk places in the conduit agreeing with the amount of the sale one of the weights or spheres H. This rolls down the conduit into the bucket, is arrested by the projection C' or otherwise, and then acts to tilt or oscillate a bucket, rising to view and exhibiting to the purchaser the indicator G, through the sight-opening D. By this time the operator manipulates the combination of the lock in such manner as to permit of opening the main drawer to deposit the amount of the purchase and to make change therefor, if such be needed. This act of opening the main drawer, as above described, manipulates the stop I and permits the weight to pass out of the bucket, but onward through the machine to its proper place in its assigned scale-trough.

I wish to be understood as to laying broad

claim to an operating-weight receptacle composed of inclined troughs arranged to receive the weights after they do the work of presenting the indicators to view, such troughs being in numerous horizontal series and capable of receiving large numbers of weights. I wish, also, as being understood as laying broad claim to the provision of such troughs in connection with the weights which enter them and a scale with each trough, with figures arranged to indicate the sum total represented by the weights through the exposed figure appearing next adjacent to the last weight.

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

1. The combination, with a case having a sight-opening, of conduits mounted in said case, oscillating buckets pivoted at the lower end of said conduits, respectively, and carrying indicator-cards, operating-weights adapted to enter said buckets and rotate the same to present said cards at the sight-opening, a stop-piece mounted opposite said buckets to obstruct the exit of said weights therefrom, a register-drawer having inclined troughs adapted to receive the said weights when released from said buckets and provided with a scale of figures to successively register the amount represented by said balls, and means to actuate said stop-piece to allow the entrance of the weights into said drawer.

2. The combination, with a case, of a series of oscillating buckets having indicator-cards adapted to be shown by the oscillation of said buckets, a register-drawer having inclined troughs corresponding to said buckets and provided with scales of figures to register the amounts represented by said balls, operating-weights adapted to enter and oscillate said buckets, and guiding means to deliver said weights from the buckets to the corresponding troughs of the register-drawer.

3. The combination, with a case having a sight-opening, of conduits mounted therein, the ends thereof extending beyond the case, a scale of figures corresponding and adjacent to said entering ends of the conduits, operating-weights adapted to travel in said conduits, indicator-cards having figures corresponding in dimension to said conduits and normally hidden from view, lever mechanism connected to said cards and adapted to be operated by said weights, and trip mechanism to obstruct the motion of said weights and retain the cards in sight, and a cash-drawer adapted to operate said trip on being opened.

4. The combination, with a register-drawer provided with an inclined bottom, of partitions dividing said drawer into troughs adapted to allow the travel of balls therein, and a scale of figures for each drawer adapted to be hidden successively and register the amounts represented thereby as they take their place within said trough.

5. The combination, with a register-drawer

having an inclined bottom and partitions dividing it into troughs adapted to allow the travel of balls therein, of a scale of figures for each trough adapted to be hidden successively by the entering balls and thus register the amounts represented thereby, and a removable stop adapted to allow the exit of said balls from said troughs from their lower ends.

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6. The combination of a register-drawer having an inclined bottom and partitions dividing it into troughs, the partitions being substantially parallel to two sides of said drawer and the bottom being inclined from both directions toward the center, whereby the longer troughs near the sides of said drawer may be used for registering the larger number of purchases and the shorter troughs inclosed thereby for the lesser number of

purchases, substantially as shown and described.

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7. In a cash-register, a registering-drawer for operating and registering weights, the same consisting of inclined troughs and of figures in connection with said troughs, the figures increasing by the amount designated opposite each trough and being arranged so that the exposed figure next adjacent to the last weight indicates the sum of the weights all in.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB H. SCHNARRENBERGER.

Witnesses:

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JNO. E. FENWICK.