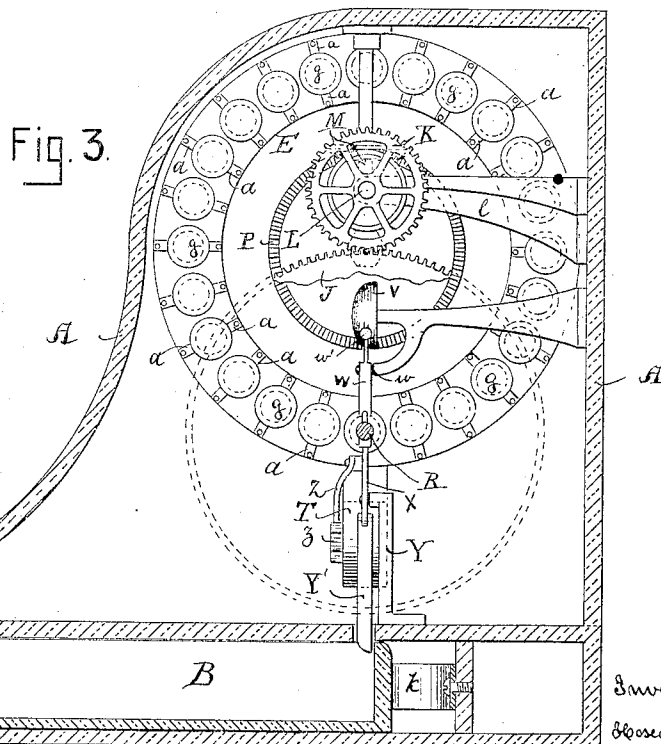
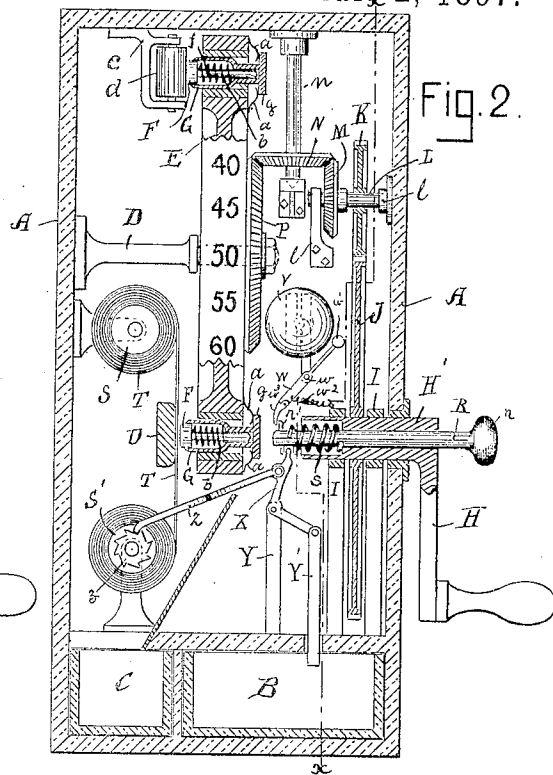
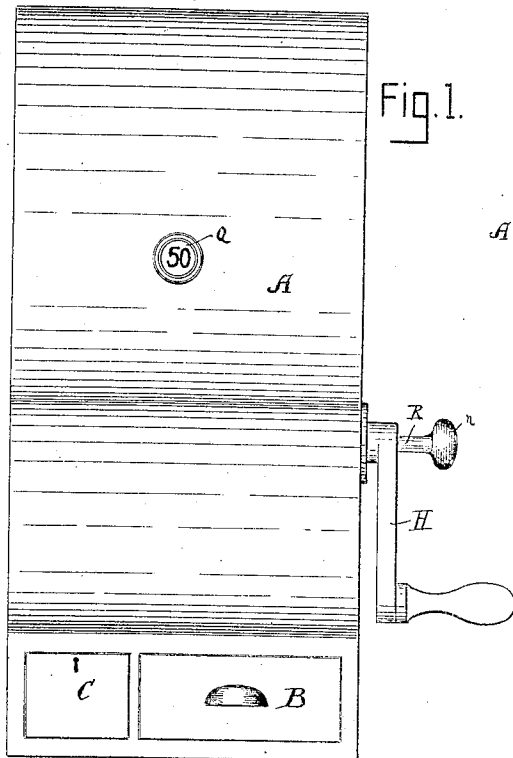


(No Model.)

H. W. LIBBEY.
CASH REGISTER.

No. 578,295.

Patented Mar. 2, 1897.



Witnesses.

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UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 578,295, dated March 2, 1897.

Application filed May 15, 1896. Serial No. 591,634. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Cash-Registers, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to certain improvements in cash-registers; and the invention consists in certain details of construction, as hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a front view of a cash-register embodying my invention. Fig. 2 is a vertical transverse section; and Fig. 3 is a vertical longitudinal section of same, taken on line *x x* of Fig. 2.

A represents a casing of the form shown. In the lower portion of this casing is fitted two drawers B C, one for the cash and the other for coupons, as hereinafter described. To one side of the casing is secured an arm D, upon which is mounted a wheel E, having upon its periphery a series of numbers or signs from zero up to any desired amount, said wheel also carrying a series of stamps or dies F, with corresponding amounts upon their faces, each of said dies being inclosed within a cutter G. The cutters G are hollow and of the form shown and made with flat heads *g*. The body of each of the cutters passes through an opening in the wheel E, and the heads *g* are held a short distance away from the wheel by springs *a*, so as to bring their cutting edges to the rear of the faces of the dies F, which are inclosed within same, said dies having long stems *f*, the ends of which are nearly in contact with the inner surfaces of the heads *g* of the cutters, so that when any cutter is pressed forward, as hereinafter described, the cutter will be advanced a short distance beyond the die, and at the same time the die will be advanced to leave an impression, after which the cutter is drawn back by the spring *a*, the die also being drawn back to its proper position by a spring *b*, inclosed within the cutter-head.

H is a crank formed in one with a hollow shaft H', which passes through the rear of

the casing A, and is supported by two standards I. On the shaft between the standards is mounted a cog-wheel J, in gear with a small cog-wheel K, mounted on a spindle L, carried by suitable bearings *l*. Upon said spindle L is also mounted a bevel-wheel M, in gear with a bevel-wheel N, carried by a spindle *n*, which wheel is in gear with a bevel-wheel P, secured to the wheel E, so that by turning the crank H the wheel E is rotated so as to cause the desired amount to appear at an opening Q in the front of the casing A, when the die with the corresponding amount will be at the lowest part of the wheel and opposite the hollow shaft II.

R is a plunger fitting in the hollow crank-shaft H and formed with a knob *r*. Around the inner end of this plunger R is secured a spiral spring *s*, that keeps said plunger drawn back, so that its inner end does not quite touch the head *g* of the cutters G.

S S' are two rolls. Upon the roll S a long strip of paper T is wound, which passes in front of a bar or block U, and thence to the roll S', upon which it is wound by mechanism hereinafter described.

V is a bell or gong which is caused to sound each time the plunger R is operated by means of a lever W, fulcrumed at *w*, the upper end of said lever being fitted with a hammer *w'*, that when the lower end of the lever W is drawn back by a spring *w²* strikes the gong V. The lower end of the lever W is provided with a pawl-catch *w³*, operated by a projecting piece *r'*, secured on the plunger R, so that when said plunger is pressed inward the lower end of the lever W will be pressed forward until the pawl-catch rides over the projecting piece, when the spring *w²* will draw the lever W back and the gong will be sounded. When the plunger is thrown back, the pawl-catch *w³* will pass over the projection *r'* ready for the action to be repeated.

X is a bell-crank lever fulcrumed to a standard Y. The lower arm of this bell-crank lever is pivoted to a bar Y', that locks the money-drawer B when the machine is in its normal position. The end of the upper arm of said bell-crank fits between two lugs on the push-rod R, and to the said arm is fulcrumed a lever *z*, having a pawl at its outer end that operates a ratchet-wheel secured to the paper-

roller *s'*, each time the rod *R* is pushed in. To the upper portion of the casing is supported a frame *c*, in which is mounted an inking-roller *d*, that just comes into contact with the face of the stamps or dies *F* as the wheel *E* is rotated. Thus the said stamps or dies are kept supplied with ink ready for stamping. *K* is a spring for forcing the money-drawer out.

The operation is as follows: Supposing the index of the wheel *E* stands at zero and a party makes a purchase amounting to fifty cents, the attendant then turns the crank *H* until the amount "\$0.50" on the wheel *E* is opposite the opening *Q* in the front of the casing. He then presses the plunger *R* in by striking the knob *r*, which forces the cutter *G*, and with it the die *F*, forward, printing upon the paper strip *I* the amount "\$0.50" and at the same time cutting the paper out. Simultaneously the bar *Y'* is raised, and the money-drawer *B* is thus unlocked, the spring *k* forcing out the same so that change can be made. Upon the plunger *R* being returned to its normal position by the spring *s* the cutter *G* will be drawn back by the springs *a*, and the cut-out portion of the paper retained in said cutter will be forced out by the die *F*, which is retracted for a certain distance by the spring *b*, but so that the die will project beyond the face of the cutter *G*. Thus the cut-out portion of the paper with the amount of the purchase impressed thereon will be forced out of the cutter and fall into the coupon-drawer *C*. As the plunger *R* is pushed in the projection *r'* will come into contact with the pawl end *w²* of the lever *W*, and as soon as the same has passed over the projection *r'* the gong will be sounded, and when said plunger is returned to its normal position the pawl end of the lever will ride over the projection and be ready for the next operation. As the plunger *R* is pushed in it also operates the bell-crank *X*, that draws up bar *Y'*, that releases the money-drawer *B*, which is then thrown out by the spring *k*, and upon the return movement of the plunger *R* the lower paper-roller *S'* will, by the pawl-lever *z*, be rotated sufficiently to present a new surface of paper to the cutter. When the money-drawer *B* is pushed in, it will be again locked by the bar *Y'*.

What I claim is—

1. In a cash-register a wheel having a series of cutters near its outer edge, their centers being parallel with the axis of the wheel, a die or stamp within each of said cutters, springs within said cutters for pressing the dies or stamps forward and means for operating said wheel cutters and dies substantially as set forth.

2. In a cash-register a wheel having upon its periphery a series of numbers and a series

of cutters near its outer edge, a stamp within each of said cutters, a series of gears operated from a crank to rotate said wheel, and an inking-roll with which the dies come in contact as the wheel is rotated, two rollers for carrying a strip of paper that passes over a block in front of the lowest cutter and means for operating said cutter, die, and paper strip substantially as set forth.

3. In a cash-register having a wheel fitted with cutters and dies as described, a push-rod for operating said cutters and dies in combination with a gong and lever operated from said push-rod a bell-crank also operated from said push-rod, a paper-roller, a pawl-lever for rotating said paper-roller and a bar for locking the money-drawer all arranged and operated substantially as set forth.

4. In a cash-register a wheel having numbers upon its periphery a series of hollow cutters around its outer edge, said cutters being arranged with their centers parallel with the axis of said wheel, springs for holding said cutters in their normal position, a stamp or die arranged within each of said cutters and a spring within the cutter for retaining the die in its normal position substantially as set forth.

5. In a cash-register a wheel having numbers upon its periphery a series of hollow cutters and dies arranged near its outer edge and parallel with the axis of said wheel, an alarm-gong and a money-drawer the combination therewith of a push-rod, a gong-striker thrown back by said push-rod, a spring for throwing the striker against the gong, a bell-crank, a rod or bar for locking the money-drawer, the bell-crank being operated by said push-bar and a spring for retaining the push-bar in its normal position substantially as set forth.

6. In a cash-register an indicating-wheel, a series of cutters around said wheel, dies within the cutters, a roller for inking the dies, two rollers for carrying a strip of paper, a gong and a gong-striker, a money-drawer and a coupon-drawer, a drawer-locking device and a bell-crank for operating the same and the paper-roller, a crank and series of gears for rotating the indicating-wheel and a push-bar for operating the cutters, dies, gong-striker, and bell-crank substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 31st day of March, A. D. 1896.

HOSEA W. LIBBEY.

Witnesses:

CALEB H. SWAN,
EDWIN PLANTA.