

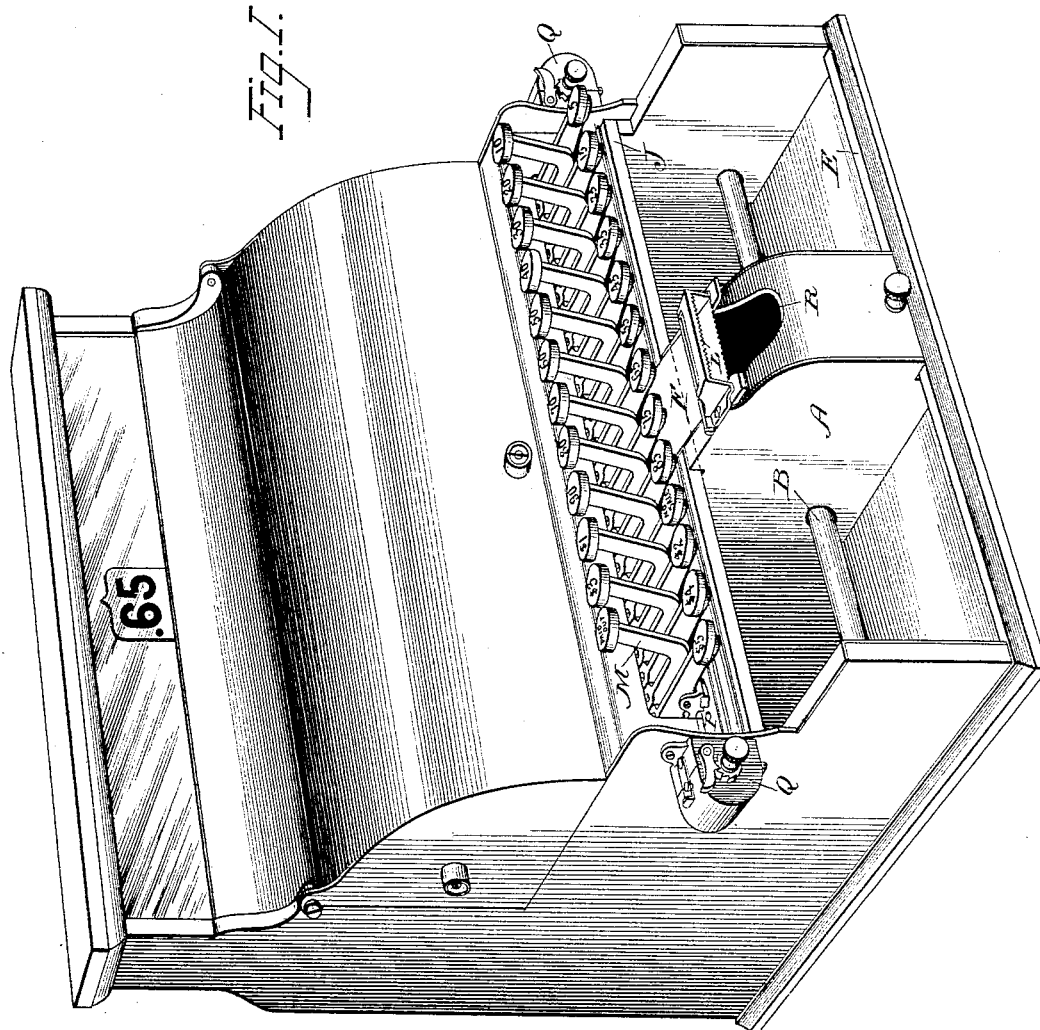
(No Model.)

3 Sheets—Sheet 1.

R. T. HOUK.
CASH REGISTER.

No. 492,983.

Patented Mar. 7, 1893.



Witnesses
Wirt H. Olsen.
John L. Johnson

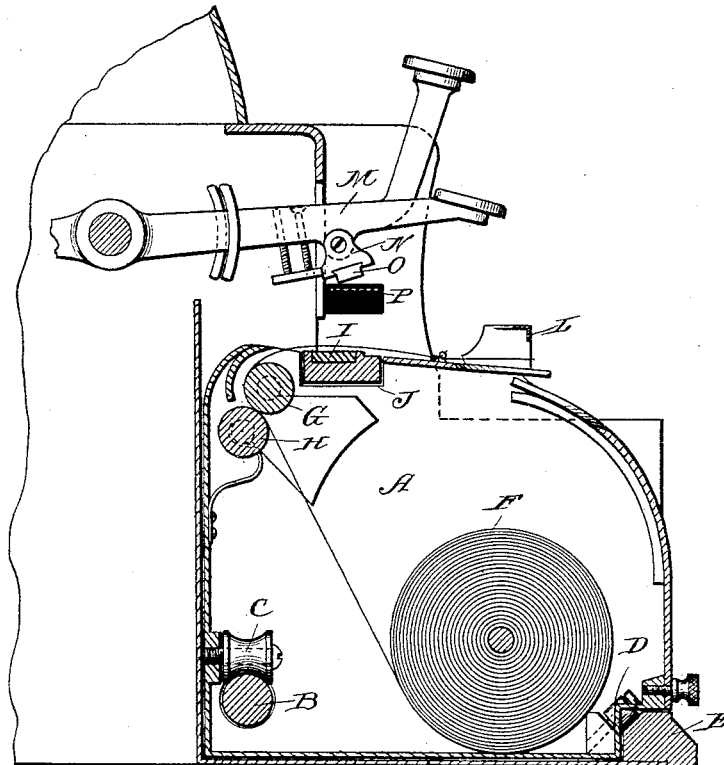
Inventor
Robert T. Houk
by Edward Rector
his atty.

R. T. HOUK.
CASH REGISTER.

No. 492,983.

Patented Mar. 7, 1893.

Fig. 2.



Witnesses.
Martin H. Olsen.
Ruben B. Caffray.

Inventor
Robert J. Houk
by Edward Rector
his atty

R. T. HOUK.
CASH REGISTER.

No. 492,983.

Patented Mar. 7, 1893.

Fig. 3.

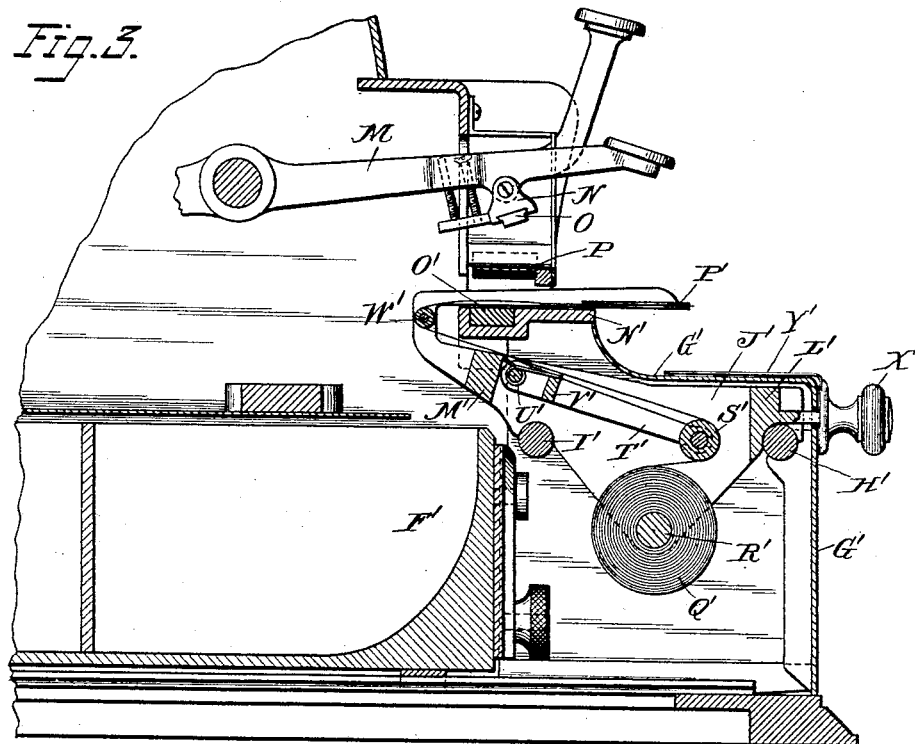
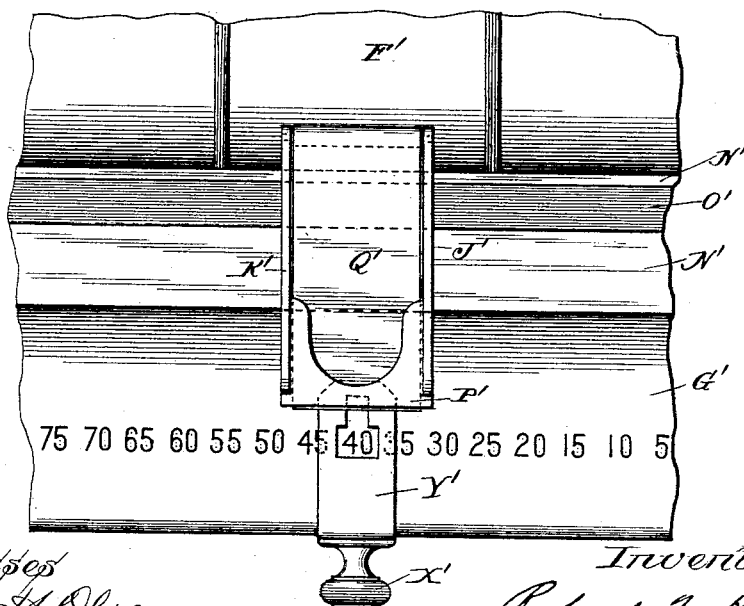


Fig. 4.



Witnesses
Martin H. Olsen.
Ruben B. Caffray.

Inventor
Robert T. Houk
by Edward Rector
his atty.

UNITED STATES PATENT OFFICE.

ROBERT T. HOUK, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF SAME PLACE.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 492,983, dated March 7, 1893.

Application filed December 12, 1892. Serial No. 454,848. (No model.)

To all whom it may concern:

Be it known that I, ROBERT T. HOUK, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Improvement in Cash-Registers, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that class of cash registers in which a series of operating keys representing different amounts are provided with, or arranged to actuate, a series of type numbers representing corresponding amounts, said types being arranged to print their respective numbers upon paper tickets inserted beneath them, the printing of the numbers upon the tickets being effected by the same operations of the keys which indicate and register their values. Heretofore a supply of separate tickets has been used—either a bunch of loose tickets placed in convenient relation to the machine, or carried in a suitable ticket-holder.

One of the principal features of my invention consists in dispensing with such a supply of loose tickets and in carrying the ticket-supply in the form of a paper strip, preferably in a roll, from whence the strip is led between the impression platen and the types and then torn off against a suitable tearing edge or otherwise severed into separate checks. This and the other novel features of my invention will be hereinafter more fully described and particularly pointed out in the claims.

In the accompanying drawings Figure 1 is a perspective view of a cash register embodying my invention in one form; Fig. 2 a vertical section of the ticket-holder and so much of the cash register as is necessary to illustrate my invention; Fig. 3 a vertical section of the lower forward portion of a cash register and a ticket holder mounted upon a support carried by the forward side of the money drawer, and Fig. 4 a detail plan view of a portion of the front side of the money drawer and ticket holder of Fig. 3.

The same letters of reference are used to indicate identical parts in all the figures.

Under the arrangement shown in Figs. 1

and 2 the ticket-holder A is mounted to slide or travel laterally upon a guide rod B secured at its opposite ends to the sides of the casing and passing through the ticket-holder. The latter has mounted upon its rear wall a friction-roller C, Fig. 2, which rests upon the guide rod B. It also has mounted upon an inclined axis in its lower forward portion a friction-roller D which rests upon a bearing surface on the cross-piece E of the casing. The paper strip from which the tickets are to be formed is carried in a roll F, which may be either mounted upon a spindle or be loose within the casing. From the roll F the paper strip is led upward and rearward between two rollers G H, thence forward over a platen I embedded in the cross-piece J of the framework, thence forward over the top of the ticket-holder, beneath a guide K and tearing edge L. The operating keys M have pivoted to them plates or hangers N which carry the types O adapted to contact with the platen I when the front ends of the keys are depressed. An inking ribbon P is carried upon spools within housings Q at opposite sides of the casing and led across the machine between the types O and platen I.

Under the above construction and arrangement the operation consists in sliding the ticket-holder A in one direction or the other until it is brought beneath the proper key, then depressing the key to print its number upon the paper strip, then drawing forward the paper strip until the printed number is brought in front of the tearing edge L, and then tearing the strip off against said edge to form the separate ticket. The forward rounded side of the ticket-holder A is provided with an opening R, Fig. 1, to permit the front end of the paper strip to be readily grasped.

While I have shown and described the platen I as one continuous piece of suitable material embedded in the cross-bar J, it is not essential that the platen should be mounted upon such a cross-bar or other fixed portion of the machine, since it might be carried by the ticket-holder itself and move laterally with it. So, too, it is not essential that the types be carried directly by the keys,

since they might be independently supported and actuated directly or indirectly by the keys.

In Figs. 3 and 4 the ticket-holder is mounted to slide laterally upon supports carried upon the front side of the usual money-drawer F'. This drawer has detachably secured to its forward side a frame-work or housing G' extending its entire width and containing two transverse shafts H' I' secured at their opposite ends in the sides of the housing. The ticket-holder consists of two side plates J' K' secured together by cross-pieces L' M' and resting upon the rods H' I'. The rear ends of the side plates J' K' are extended upward and thence forward over the cross-piece N', which forms the top of the rear portion of the housing G' and has embedded in it a platen O'. The extreme upward and forward ends of the side plates J' K' are connected by two thin plates P', separated sufficiently from each other to permit the passage of the paper strip. The strip is carried in a roll Q' upon a spindle R' mounted in the side-plates J' K', and is led thence over a roller S' journaled in a swinging-frame composed of two side arms T' hung upon a transverse shaft U' and connected by a cross-bar V'; thence upward and rearward over a guide-roller W', thence forward over the platen O' and between the plates P'. The forward cross-bar L' of the ticket-holder has secured to it a handle X', whose stem extends through a transverse slot in the front wall of the housing G', and this handle preferably carries a pointer or equivalent indicator Y' which co-operates with a series of numbers upon the upper surface of the housing G', Fig. 4, so that when the handle is slid laterally until the indicator Y' is brought over a given number the ticket-holder is brought beneath the corresponding key in position to have its value printed upon the paper strip.

The operation of the parts, as in the construction above described, consists in sliding the ticket-holder laterally upon the guide-rods H' I' until it is brought beneath the proper key, then depressing the key to effect the printing, and then drawing the strip forward the proper distance and tearing it off against the upper plate P'. The middle and rear portions of these plates P' are cut away, so that the paper strip may be readily grasped between the thumb and finger of the operator and pulled forward far enough for him to catch hold of its front end. It will be understood that the frame or housing G' on the ticket-holder moves outward and inward with the money-drawer, which is normally locked, and opened (generally automatically) at each operation of the machine.

It is common in machines of this class to provide means between the operating keys and the drawer lock by which the drawer is released upon the return upward strokes of the keys. In such case the drawer would not be released until after the printing had been

effected by the depression of the keys, and if it were arranged to be thrown open by a spring its automatic opening in such case would not interfere with the printing operations upon the paper strip.

Having thus fully described my invention, I claim—

1. In a cash register, the combination, with a series of operating keys representing different values, type-numbers representing corresponding values actuated by the respective keys, and an impression platen co-operating with the type-numbers, of a ticket-holder mounted to move transversely across the machine adjacent to the front ends of the keys and containing a roll of paper strip adapted to be drawn from the holder over the impression platen and severed into separate checks, substantially as and for the purpose described.

2. In a cash register, the combination, with a series of operating keys representing different values, type-numbers representing corresponding values carried by the respective keys, and an impression platen co-operating with the type-numbers, of a ticket-holder mounted upon guides to move transversely across the machine adjacent to the front ends of the operating keys and containing a supply of paper strip adapted to be drawn from the holder over the impression platen and torn off to form detached checks, substantially as and for the purpose described.

3. In a cash register, the combination, with a series of operating keys representing different values, type-numbers representing corresponding values carried by the respective keys, a fixed impression platen extending transversely across the machine beneath the types, and an inking ribbon led between the types and platen, of a ticket-holder mounted upon guides to move transversely across the machine adjacent to the front ends of the operating keys and containing a supply of paper strip adapted to be drawn from the latter over the fixed impression platen and beneath the types, and torn off to form detached checks, substantially as and for the purpose described.

4. In a cash register, the combination, with a series of operating keys representing different values, type-numbers representing corresponding values actuated by the respective keys, and an impression platen co-operating with the type-numbers, of a forwardly and backwardly sliding money-drawer, and a ticket-holder mounted to slide laterally upon the front side of the money-drawer and containing a roll of paper strip adapted to be led from the holder over the impression platen and severed into separate checks, substantially as and for the purpose described.

5. In a cash register, the combination, with the operating keys M carrying the type-numbers O, and the inking ribbon P led beneath the same, of the forwardly and backwardly sliding money-drawer F', the housing G' carried upon the front side of the drawer, the

platen O' co-operating with the types O, and the ticket-holder mounted to move laterally upon guides H' I' within the housing G' and carrying the roll of paper-strip Q' adapted to be led over the platen O' and torn into separate checks, substantially as and for the purpose described.

6. In a cash register, the combination of the operating keys M, the types O carried thereby, the inking ribbon P led beneath the same, the forwardly and backwardly movable money-drawer F', the housing G' secured to the front side of the drawer, the platen O' carried by said housing and co-operating with the types O, and the ticket-holder adapted to move laterally within the housing G' upon guides H' I' and composed of the side-plates J' K' connected by suitable cross-pieces, as L' M', and extended rearwardly and upwardly and forwardly over the platen O' and connected at their forward ends by the plates P', said holder containing the roll of paper strip Q' led rearward over a guide W' and thence forward over the platen O' and between the plates P', and the handle X', secured to the holder and extending through a transverse slot in the front wall of the housing G', substantially as and for the purpose described.

7. In a cash register, the combination of the

operating keys M, the types O carried thereby, the inking ribbon P led beneath the same, the forwardly and backwardly sliding money-drawer F', the housing G' detachably secured to the front side of said drawer, the platen O' embedded in the top plate N' of said housing and extending beneath the row of types O, the ticket holder mounted to slide laterally within the housing G' upon the guide rods H' I' and consisting of the two side-plates J' K' connected by the cross pieces L' M' and extended rearwardly and upwardly and forwardly over the platen O' and connected at their upper forward ends by plates P', and the handle X' secured to the ticket-holder and extending through a transverse slot in the front wall of the housing G' and carrying the pointer Y' co-operating with an index upon the upper face of the housing G', said holder containing the roll of paper strip Q' led upward and rearward over a guide-roller W', and thence forward over the platen O' and between the plates P', substantially as and for the purpose described.

ROBERT T. HOUK.

Witnesses:

ARTHUR E. FRENCH,
MILAN F. STEVENS.