(No Model.) 2 Sheets—Sheet 1.

W. P. HUFFMAN.

CASH REGISTER.

No. 489,228. Patented Jan. 3, 1893.

Fig. 7

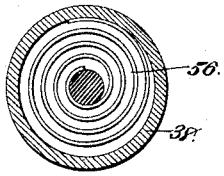


Fig. 1.

Fig. 8.

Fig. 5.

Fig. 4.

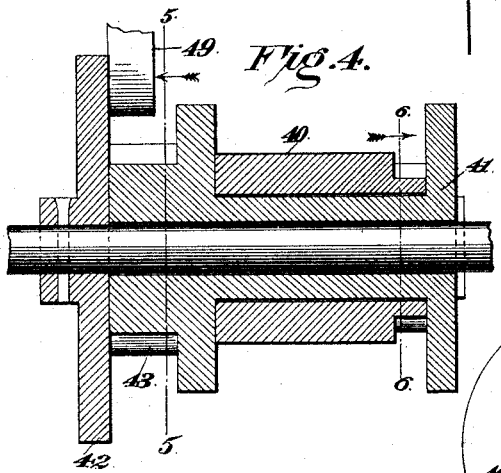
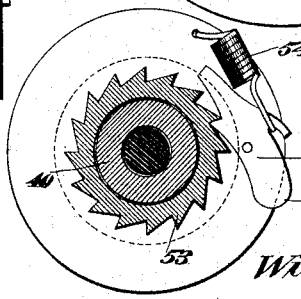


Fig. 6.



Witnesses

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(No Model.) 2 Sheets—Sheet 2.

W. P. HUFFMAN.

CASH REGISTER.

No. 489,228. Patented Jan. 3, 1893.

Fig. 2.

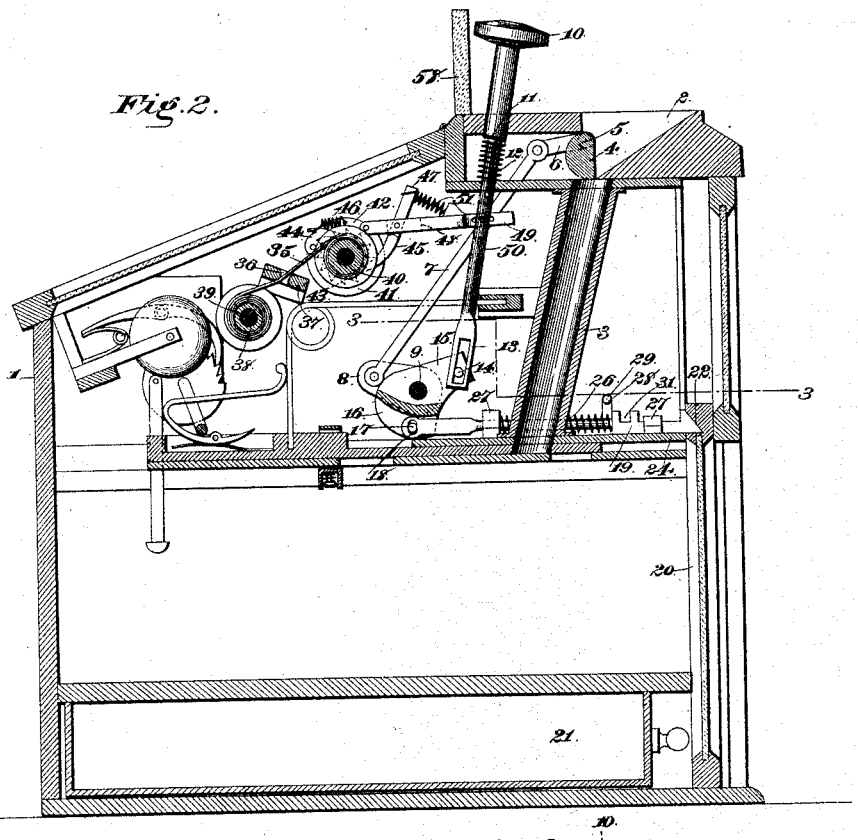


Fig. 9.

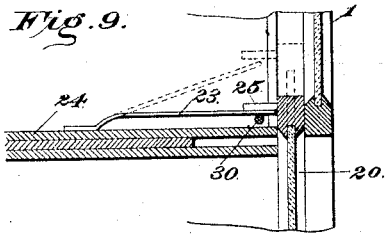


Fig. 3.

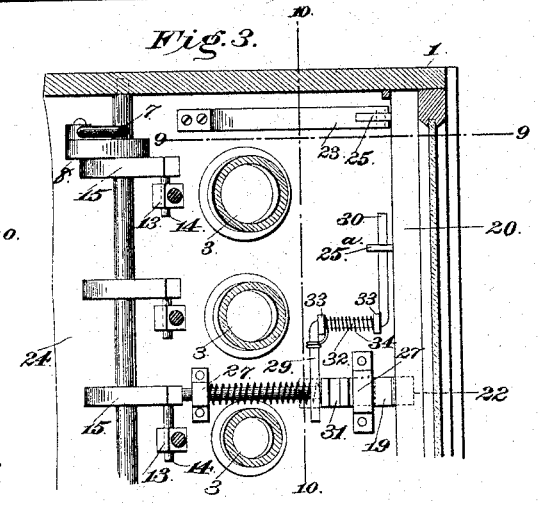
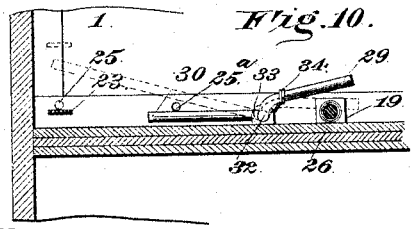


Fig. 10.



Witnesses

M. Fowler

W. F. Riley

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William P. Huffman

By his Attorneys,

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UNITED STATES PATENT OFFICE.

WILLIAM P. HUFFMAN, OF HICKORY, NORTH CAROLINA.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 489,228, dated January 3, 1893.

Application filed November 12, 1891. Serial No. 411,732. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. HUFFMAN, a citizen of the United States, residing at Hickory, in the county of Catawba and State of North Carolina, have invented a new and useful Cash-Register, of which the following is a specification.

The invention relates to improvements in cash registers.

The object of the present invention is to provide a simple and inexpensive register which will register and indicate the amount of sales or other additions made to a till, and which will prevent money being accidentally placed in a till without registering.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a cash register constructed in accordance with this invention. Fig. 2 is a vertical sectional view. Fig. 3 is a horizontal sectional view on line 3, 3 of Fig. 2. Fig. 4 is a detail sectional view taken longitudinally of one of the drums. Fig. 5 is a sectional view on line 5, 5 of Fig. 4. Fig. 6 is a similar view on line 6, 6 of Fig. 4. Fig. 7 is a transverse sectional view of one of the spools. Fig. 8 is a detail perspective view of one of the doors. Fig. 9 is a sectional view on line 9, 9 of Fig. 3. Fig. 10 is a similar view on line 10, 10 of Fig. 3.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

The cash register is designed to be employed in connection with a till or money receptacle, and in the accompanying drawings I have shown it applied to a coin-counter, forming the subject-matter of Patent No. 456,701 granted me July 28, 1891.

1 designates a case or cabinet provided in its top with a series of inclined slots or recesses 2 communicating with a series of coin-tubes 3 adapted for the reception of various denominations of coins and operated to deposit the coins as set forth in the above referred to patent. The slots 2 are normally closed by a series of oscillating doors 4 carried by and preferably formed integral with a rock-shaft 5 which is provided at its ends with arms 6, and is connected by rods 7 with arms 8 of a rock-shaft 9 and the latter is operated and rocked when any one of keys 10 is depressed. The keys are arranged in a series back of the coin tubes and slots, and there is one for each tube and they are provided near their upper end with shoulders 11 formed by reducing the lower portions of the stems of the keys and engaged by spiral springs 12 which are arranged on the reduced portions and hold the keys normally elevated and return them to their initial positions after being depressed. The lower end 13 of each key is slotted and receives and is adapted to engage a lateral projection 14 of a key actuated arm 15 mounted on the rock-shaft 9 whereby when a key is depressed, the rock-shaft will be operated. One of the key actuated arms 15, preferably the central one, is provided with a depending extension 16 having a laterally projecting pin 17, arranged in an opening 18 of a horizontally disposed, spring actuated latch 19 for locking a lower sash 20, and when the rock-shaft is partially rotated, by the depression of a key, the spring actuated bolt will be withdrawn to release the sash 20 and permit access to a money drawer 21 arranged at the bottom of the case or cabinet 1. The lower sash 20 is provided at its upper edge or top with a latch recess 22 to receive the beveled nose of the latch, and it is held elevated by flat springs 23, mounted on a horizontal board 24 and having their outer ends engaging pins 25 horizontally disposed and projecting rearward from the top of the lower sash 20. When the sash is raised the latch 19 which is actuated by a spring 26, and which is arranged in guides 27, is held withdrawn by a catch 28 provided with oppositely disposed arms 29 and 30, the former of which is adapted to engage a notch 31 of the latch 19, when the sash 20 and the flat springs are raised, and the arm 30 is arranged to be engaged by a pin 25^a of the sash to be depressed to lift the arm 29 out of engagement with the nut 31 to release the latch when the sash is lowered. The central portion 32 of the catch 28 is arranged in keepers 33, and has mounted on it a spiral spring 34 which has one end connected with the arm 29, and the tendency of the spring is to depress the

arm 29 and to force the same into engagement with the notch 31 of the spring actuated latch 19.

Each coin-tube has a companion ribbon or strip 35 bearing a series of numbers increasing in arithmetical progression by the sum of denomination of the coin designed to be contained in the tube, and adapted to be moved through a slot 36 of a transverse board 37 to expose successively the numbers and thereby indicate and register the sale made or other additions to the coin tubes or money drawer. The strip or ribbon 35 is wound around a spring actuated spool 38 of a shaft 39 and has one end attached to a sleeve 40 of a drum 41, and is adapted to be advanced through the slot 36 and wound around the drum as the latter is rotated by depressing its companion key. One end of the drum is arranged adjacent to a disk 42 and is provided with ratchet teeth 43 which are engaged by a spring actuated stop pawl 44 to prevent retrograde rotation of the drum, and by an actuating pawl 45 which rotates the drum and advances the ribbon or strip. The pawl 44 is mounted on the disk 42 and is held in engagement with the teeth 43 of the drum by a spring 46, having one end secured to the disk and its other attached to a projection of the pawl 44. The actuating pawl 45 is provided with an upward extending portion 47, and is pivoted intermediate its ends in a slot 48 of an oscillating bar 49, which has one end pivoted to the disk 42 and has its other end 49 reduced and arranged in a slot 50 of the key whereby when the key is depressed the oscillating bar will be moved downward carrying with it the actuating pawl 45, and rotating the drum one tooth and advancing the ribbon or strip, and exposing the next number of the latter. The actuating pawl 45 is held in engagement with the teeth 43 by a spring 51 which has one end attached to the upper end of the extended portion of the pawl 45 and its other end secured to a shoulder of the oscillating bar. The sleeve 40 which is arranged on a reduced portion of the drum is held rigid therewith by a clutch consisting of a spring-actuated pawl 52, pivotally mounted on the drum and teeth 53 arranged at end of the sleeve and adapted to be engaged by the pawl 52. The clutch pawl 52 is adapted to be withdrawn from engagement with the teeth 53 against the action of the spring 54 by depressing an enlargement 55 to permit a retrograde rotation of the sleeve and to cause the ribbon or strip 35 to be moved backward and wound around the spool 38 by a spring 56 arranged in an annular recess in one end of the spool and having one end attached to the latter and its other end secured to the shaft 39.

It will be seen that the cash-register is simple and comparatively inexpensive in construction, that it is adapted to register the amount of each sale or addition to the till, and that the slots are closed and the lower sash is fastened until released by the depression of a key. One of the keys has no companion tube and registering mechanism, and is adapted solely for actuating the rock-shaft 9 to open the slots and raise the lower sash when it is desired to make change or for kindred purposes. This key is shown arranged at one end of the case or cabinet, but it may be arranged at any point where it will be most convenient for the operator.

The total amount of sales or additions to the till is indicated by the sum of the numbers exposed in the slots 36 of a transverse board 37.

A glass plate 58 is shown in dotted lines in Fig. 1 and is arranged back of the keys to protect the same.

What I claim is—

1. In a cash register, the combination of a casing provided with a series of slots or openings, a series of coin-tubes arranged below the openings or slots, a shaft, oscillating doors carried by the shaft and arranged to close the slots and openings, and the mouths of the coin-tubes to prevent coins being deposited into the latter, and means for actuating the shaft, substantially as described.

2. In a cash register, the combination with a case provided with a series of slots or openings, a series of coin-tubes arranged below the slots or openings, doors arranged to close the openings or slots and the upper ends of the coin-tubes, and keys connected with and operating the doors, substantially as described.

3. In a cash register, the combination of casing provided with slots or openings, a series of coin-tubes arranged beneath the latter, a rock-shaft provided with an arm, oscillating doors carried by the rock-shaft 5 and arranged to close the slots or openings, and the tops of the coin-tubes, a rock-shaft 9 provided with an arm, a rod connecting the arms of the rock-shafts, and a key connected with and operating the rock-shaft 9, substantially as described.

4. In a cash register, the combination of the case having a vertically movable sash, springs arranged to engage and elevate the sash, a spring-actuated latch arranged to engage the sash, and a spring actuated catch provided with an arm 29 arranged to engage the latch to hold the same out of engagement with the sash when the latter is raised and provided with an arm 30 arranged to be engaged by the same when the sash is lowered to release the latch, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM P. HUFFMAN.

Witnesses:

CHALMERS G. HALL,

ARTHUR M. INGOLD.