(No Model.) 2 Sheets—Sheet 1.

S. J. TAYLOR.

CHANGE MAKER AND AUTOMATIC REGISTER.

No. 448,278. Patented Mar. 17, 1891.

Fig. 2.

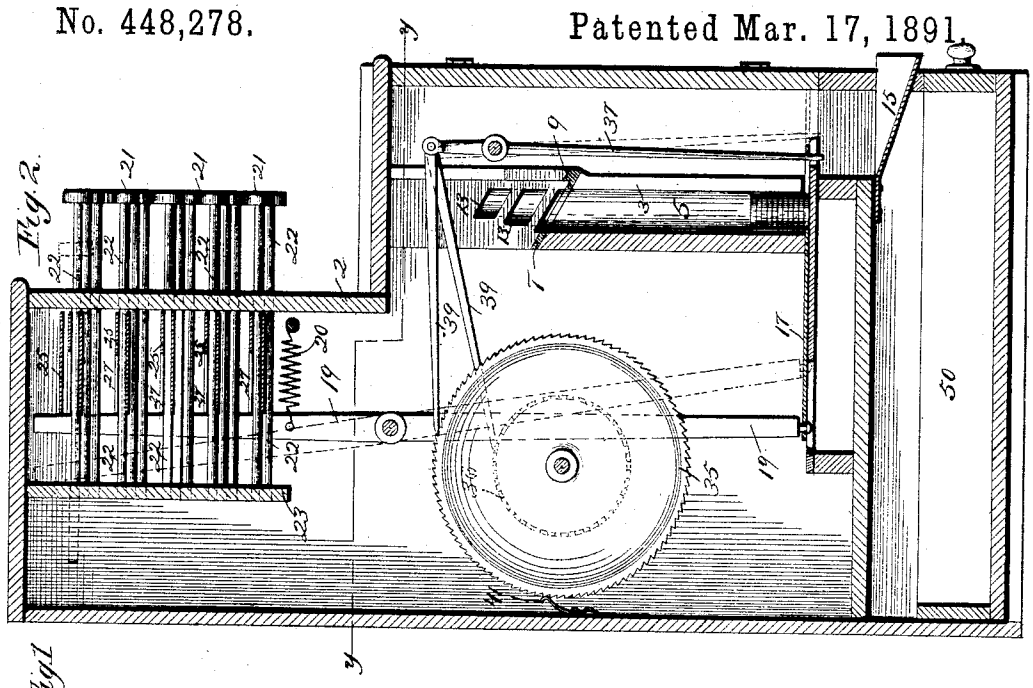
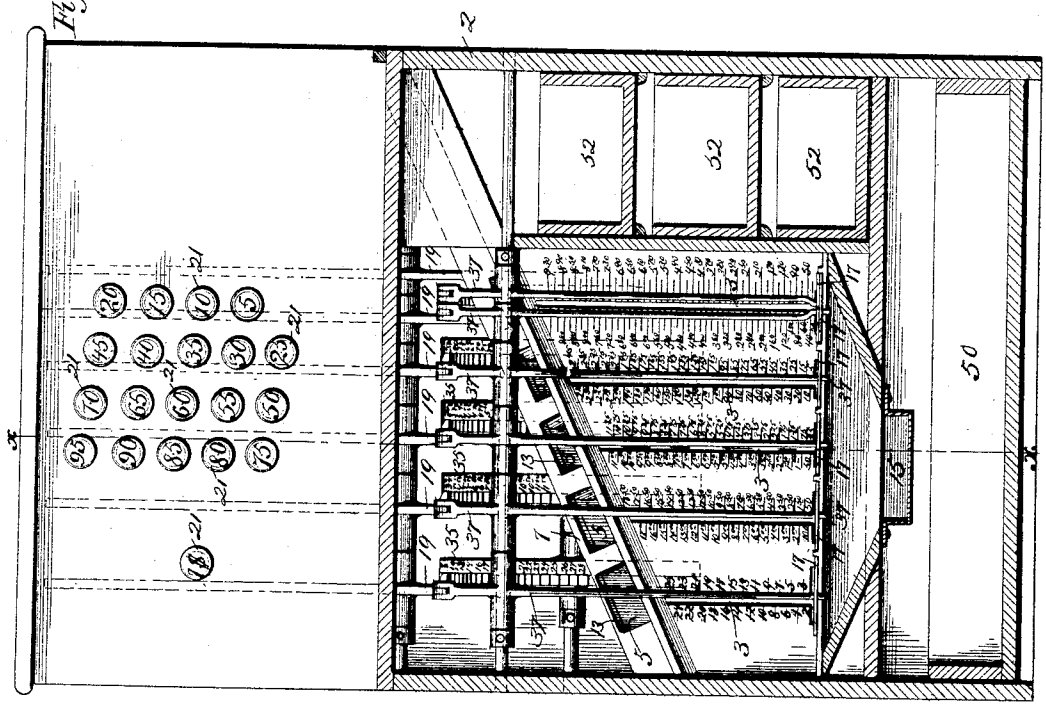


Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

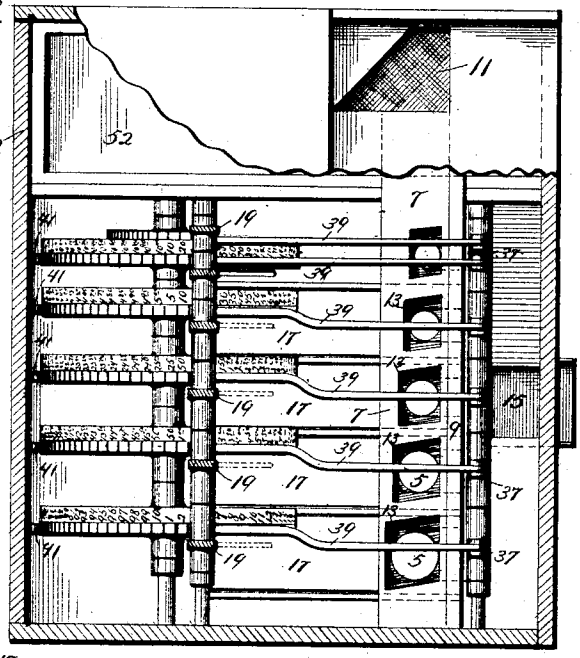


Fig. 6.

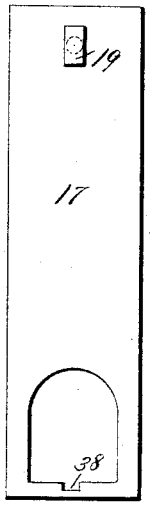


Fig. 7.

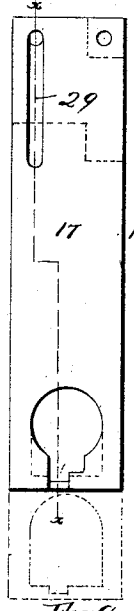


Fig. 8.



Fig. 11.



Fig. 4.

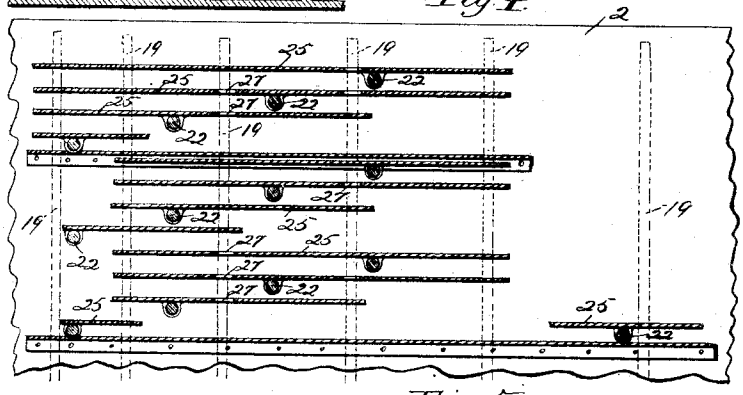


Fig. 9.

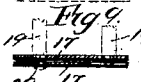


Fig. 10.

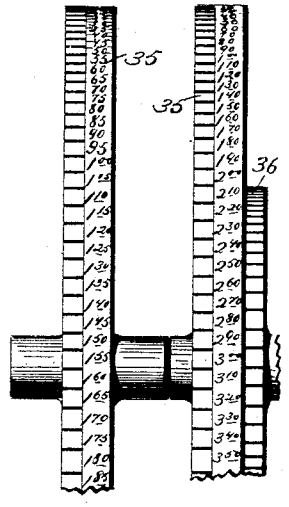
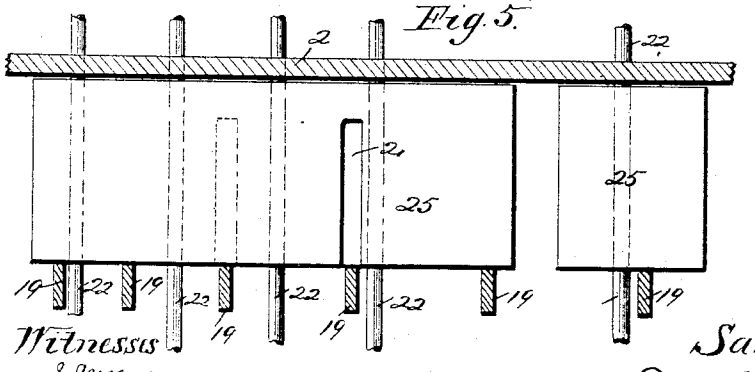


Fig. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL J. TAYLOR, OF ST. THOMAS, (DAKOTA TERRITORY,) NORTH DAKOTA.

CHANGE-MAKER AND AUTOMATIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 448,278, dated March 17, 1891.

Application filed September 2, 1889. Serial No. 322,647. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. TAYLOR, of St. Thomas, in the county of Pembina and Territory of Dakota, have invented a new and useful Cash-Receiver, Change-Maker, and Automatic Register, of which the following is a specification.

The object of this invention is to provide an improved device for receiving cash and depositing the different coins in separate receptacles, showing the amount in each receptacle, delivering any desired amount of change by the operation of a single button or key, and registering the amount of cash that is taken out of the apparatus.

The invention consists, generally, in the construction and combination of parts hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a front elevation of the machine with the front portion of the casing in section. Fig. 2 is a vertical section on line *x x* of Fig. 1. Fig. 3 is a horizontal section on line *y y* of Fig. 2. Fig. 4 is a detail section of the devices for operating the discharging-levers. Fig. 5 is a plan view of the same, showing the discharging-levers in cross-section. Figs. 6, 7, 8, and 9 are details of the slide for discharging the coins. Fig. 10 is a detail of two of the registering-wheels. Fig. 11 is a detail section of two of the slides.

In the drawings, 2 represents a suitable casing, which may be of any desired size, construction, or material. Arranged within this casing are a series of upright receptacles which receive and hold the coin. There may be any number of these receptacles, and they may be of any desired size and shape to adapt them to holding any desired kinds of coin. These receptacles are preferably provided each of them with a narrow vertical slot 3, extending through the front wall of the receptacle and preferably of the full height thereof. Through these slots the edges of the coin may be seen. I also prefer to place a series of figures upon the outer wall of the receptacle adjacent to the slots 3 for the purpose of denoting the number of coins or the amount of money in each receptacle. By observing the position of the top coin in any one of the receptacles and noting the figure opposite to it the amount of money in that receptacle will be known.

Extending across the tops of the receptacle, 5 is an inclined chute or slide 7. This chute inclines both longitudinally and laterally, as shown in Figs. 1 and 2, and is provided with a ledge 9, extending along its front edge. An opening 11 is made through the top of the casing, communicating with the chute 7. A series of openings 13 are formed in the chute, communicating with the receptacles 5. These openings 13 are of different widths, the widest opening being at the lower end of the chute and the narrowest at the upper end. The forward edges of the openings are arranged substantially in line with each other, the rear edges not being in line. When the coins are dropped into the opening 11, they slide down the chute 7, resting against the ledge 9. The smallest coin drops into the first receptacle. The coin of the next size is too large to drop into this receptacle, but slides over the opening above the receptacle and drops into the second receptacle, and so on with the coins of the other sizes.

I have here shown five receptacles adapted to hold, respectively, ten-cent pieces, five-cent pieces, twenty-five-cent pieces, fifty-cent pieces, and dollars in the order named.

Arranged in front of and below the receptacles 5 is a delivery-spout 15, which is adapted to receive the coins from all of the receptacles and to deliver them outside of the casing. Each receptacle is provided with a slot extending through its front and rear wall at the bottom of the receptacle, and the slot in the front of the receptacle is of just sufficient size to permit the bottom coin to pass through it. A slide 17 is provided for each of the receptacles, and this slide is arranged with its end projecting into the slot in the rear wall of the receptacle. The slide is connected to a lever 19, pivoted in the casing of the machine, and provided with a spring 20, by means of which the slide is held normally in a retracted position. When the upper end of the lever 19 is moved backward, the lower end of the lever is moved forward, thereby moving forward the slide 17 and pushing the lower coin out of the receptacle and causing it to drop into the spout or chute 15. The for-

ward ends of the slides 17 are preferably of the form shown in Fig. 6, having a slot or opening therein, the rear end of which is of curved form, and the slides project into the receptacles, so that the bottom coin in the receptacle is within the slot in the slide. The upper ends of the levers 19 preferably extend into the upper portion of the casing. A series of push-buttons or keys 21 is arranged in front of the upper part of the casing, being preferably grouped together, as shown in Fig. 1. Each of the keys 21 is preferably secured upon a rod 22, which is mounted in the plate forming the front wall of the upper part of the casing and in a plate 23, arranged within the casing in the rear of the levers 19. Each of the rods 22 has secured to it a plate 25, which is arranged to engage one or more of the levers 19. The plates may be arranged to engage any desired number of the levers, and where there is an intermediate lever that it is not desired to operate the plates 25 may be provided with a slot or slots 27, as shown most clearly in Fig. 5, which will permit the lever to remain stationary when the plate is pushed inward. By this means the keys may be arranged so that by the operation of either key any desired amount of change from five cents up to one dollar will be delivered by the machine. For example, the key marked 15 will operate the slides of both the five and ten cent receptacles, the key marked 30 will operate the slide of the five and twenty-five cent receptacles, and so on.

For the purpose of removing twenty cents from the machine I provide a construction somewhat different from that connected with the other receptacle. For this receptacle I provide two slides arranged one above the other, as shown in Fig. 1 and as shown in detail in Figs. 6, 7, and 9. The upper slide is provided with a slot 29, and the lever 19, that is connected to the lower slide, extends through this slot. This lever is operated by the ten-cent key, and when this key is operated the lower slide alone is moved. The upper slide is operated by a lever connected to the twenty-cent key, and when this slide moves the lower slide is moved with it by reason of the engagement of the lever that is connected to the lower slide with the end of the slot 29 of the upper slide. When it is desired to remove ten cents from the machine, the ten-cent key is operated, and the lower coin is moved out by the lower slide. When it is desired to take out twenty cents, the twenty-cent key is operated, both slides are simultaneously moved, and two ten-cent pieces are released.

I also prefer to provide a registering mechanism that will show the amount of money that has been removed from each one of the receptacles. For this purpose I arrange within the casing a series of wheels 35, each provided upon its periphery with a series of ratchet-teeth and with a series of figures or characters representing amounts of money. These wheels are arranged one for each of the coin-receptacles, and their figures represent, preferably, dollars and cents, and each figure upon any wheel represents the amount of the preceding figure with the value of one coin of the corresponding receptacle added to it. A series of levers 37 are arranged within the casing, being mounted upon suitable pivots, and they are provided with pawls 39, engaging the ratchet-teeth upon the wheels 35. Spring-pawls 41 are also provided to hold the wheels 35 from accidental movement. The lower ends of the levers 37 are arranged in front of the slot at the bottom of the receptacles in such position that the lever will be engaged by the coin as it is forced out of the receptacle. I prefer to arrange the lever 37 with its lower end resting in a notch 38 in the end of the slot in the slide 17, so that when the slide is retracted by its lever the lever 37 will be drawn back, also bringing its pawl into engagement with a new notch on the ratchet-wheel. As each slide is operated it pushes a coin out of the receptacle, and this coin in its forward movement strikes the end of the lever 37 and operates the registering-wheel. If the slide is operated when there are no coins in the receptacle, the registering-lever will not be moved.

In connection with the ten-cent receptacle I provide the registering-wheel with an extra ratchet 36, which is smaller than the wheel itself, and an independent lever is arranged to operate this ratchet-wheel through a pawl 39, similar to those already described. The lever 37, by which this ratchet is operated, is connected to the upper slide of the ten-cent receptacle, and it is shorter than the other lever 37, so that it is not operated when the lower slide is moved, but the coin that is moved by the lower slide passes under this lever; but when the upper slide is moved or both slides are moved together the upper coin encounters the lever that operates upon the smaller ratchet-wheel, and the wheel is moved twice as far as it is when it is moved by the other lever. When the ten-cent key is moved or the lower slide is operated by any of the keys, the registering-wheel for the ten-cent receptacle will be moved far enough to indicate that ten cents have been removed from that receptacle. When both slides are moved by the twenty-cent key or by any one of the other keys, this wheel will be moved far enough to indicate that twenty cents have been removed from this receptacle.

The operation of the apparatus will be readily understood. The coins are dropped into the openings 11, communicating with the chute, in any order, and they drop into their respective receptacles, the ten-cent pieces going into the first receptacle, the five-cent pieces into the second receptacle, the twenty-five-cent pieces into the third receptacle, the fifty-cent pieces into the fourth receptacle, and the dollars into the fifth or last receptacle.

When it is desired to obtain any amount of change from the apparatus, the key representing the amount desired is pressed, and this amount of change will be removed from the receptacles and will pass out through the spout 15. As the coins are moved out of the receptacle by the slide they operate the levers connected with the registering-wheels, and these wheels show the amount of money that has been removed from the receptacle.

The front of the casing may be provided with a door, or may be of glass, so that the amount of money in each receptacle may be seen at any time.

I do not confine myself to the details of construction, as the same may be varied in many particulars without departing from my invention.

I prefer to provide the apparatus with a suitable cash-drawer 50, which may be used for holding bank-bills, and with other drawers or receptacles 52, which may be used for holding odd coins or other desired articles.

I claim as my invention—

1. The combination, with the series of coin-receptacles 5, provided with slots at their lower ends, of the slide 17, having the slotted end projecting into the lower ends of said receptacles, the levers connected with said slides, and the series of keys provided with plates arranged to engage said levers, substantially as described.

2. The combination, with the series of receptacles, a series of slides for removing the coins in said receptacles, and a series of levers connected with said slides, of the series of keys 21, the sliding rods 22, to which said keys are connected, and the plates 25, secured upon said rod and arranged to engage the necessary lever or levers for removing the amount of money indicated by the number upon the key, substantially as described.

3. In a device of the class described, the combination, with the series of coin-receptacles and the slides for removing said coins, of a series of registering-wheels provided with operating-levers arranged to be engaged by the coins as they are moved out of said receptacles.

4. The combination, with the series of coin-receptacles 5, provided with exit-slots at their lower ends, of the slotted slides 17 to eject the lower coins from said receptacle, the registering-wheels 35, and the levers 39, engaging with said wheels and connected with the levers 37, extending down in front of the exit-slots in said receptacle and engaging said slides, substantially as described.

5. In a device of the class described, the combination, with the coin-receptacle provided with a double slide, of a registering-wheel provided with two ratchets and the operating-levers connected with said ratchets, substantially as described.

In testimony whereof I have hereunto set my hand this 28th day of August, 1889.

SAMUEL J. TAYLOR

In presence of—
E. A. TAYLOR,
E. D. STACK.